

THE MILITARY BUDGET AND NATIONAL ECONOMIC PRIORITIES

HEARINGS BEFORE THE SUBCOMMITTEE ON ECONOMY IN GOVERNMENT OF THE JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES NINETY-FIRST CONGRESS FIRST SESSION

JUNE 3, 4, 5, 6, 9, 10, 11, 12, 13, 17, 23, AND 24, 1969

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THE MILITARY BUDGET AND NATIONAL ECONOMIC PRIORITIES

TUESDAY, JUNE 3, 1969

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON ECONOMY IN GOVERNMENT
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The Subcommittee on Economy in Government met, pursuant to notice, at 10:05 a.m., in room G-308 (auditorium), New Senate Office Building, Hon. William Proxmire (chairman of the subcommittee), presiding.

Present: Senators Proxmire, Symington, and Percy; and Representatives Griffiths, Moorhead, and Conable.

Also present: John R. Stark, executive director; economists Richard F. Kaufman and Robert H. Haveman, and Douglas C. Frechtling, minority economist.

Chairman PROXMIRE. The subcommittee will come to order.

The hearings we begin today on "The Military Budget and National Economic Priorities" represent a logical continuation of the work of the Joint Economic Committee and the Subcommittee on Economy in Government. No overall study of the national economy can be complete without a full consideration of the impact of military spending. No efforts to attain economy in the conduct of Government can succeed if we fail to scrutinize military spending. In view of the enormous size of the defense budget and defense-related budgets, any inquiry into national priorities must eventually confront this question: How can military and civilian needs be balanced?

While the level of international uncertainty and danger is substantial, we also face major problems at home. Our polarized and deteriorating cities, our poor, our racial and ethnic minorities, and our students demand the attention of the Nation. Despite general affluence, all of our major river systems are polluted and our great lakes are dying; the air in our major cities is heavily polluted; the housing shortage for low-income families grows worse, and now high-interest rates are driving middle-income families out of the housing market; many large public school systems are in serious trouble; our highways and city streets are crowded with impatient automobile drivers for whom the inadequate mass transportation facilities provide little or no alternative. While employment is at a record high, depression level unemployment rates stubbornly cling to groups of people who, for want of a better phrase, we call the

“hard-core unemployed”; the threat, and too often the fact, of riots hangs over many communities; the talk of a taxpayers’ revolt grows louder as inflation erodes the incomes and savings of many of our citizens.

It is essential that we undertake a self-conscious look at our national priorities and at the relationship of current budget allocations to them.

This series of hearings is a response by the Subcommittee of Economy in Government to the recommendation of the Joint Economic Committee in its recent annual report.* That report urged—and I quote—that “a formal and comprehensive study of national goals and priorities” be undertaken “with a view to establishing guidelines for legislation and expenditure policy.” It also stated that “the study of goals and priorities should focus on the allocation of Federal revenues between the military and civilian budgets. Because the defense budget is substantially less visible than budgets for civilian programs, and because of our past experience with national security costs which have substantially exceeded initial estimates, this allocation question should not be neglected in an analysis of national priorities.”

Since the end of World War II, our Federal budget has given implicit recognition to the fact that the No. 1 priority of the United States is national defense or national security. The military budget has taken more than half of all the taxes we pay. Indeed, spending on weapons and military manpower exceeds the volume of tax revenues from the personal income tax. The Federal Government has no greater responsibility than to make the most effective possible use of these tax revenues. Indeed, in large measure, discussion of national priorities cannot be disentangled from the question of waste and inefficiency in the Federal budget. As the recent report of this subcommittee pointed out, the level of inefficiency and waste in Government procurement matters is substantial. It poses a major stumbling block to the attainment of other priorities or the reduction of taxes.

In this set of hearings, we will concentrate on the size of the military budget in relation to other national needs and the outlook for defense spending in the 1970’s. In addition, we will hear testimony on steps necessary to eliminate waste and inefficiency in the Federal budget and to increase the analysis of the defense budget and its economic impact. We will hear a wide range of viewpoints in these hearings. Arguments both for increasing and decreasing the level of military spending will be presented to the subcommittee.

In this morning’s session, we begin with a statement of a prominent economist and statesman, Professor John Kenneth Galbraith, of Harvard University. After hearing his statement and questioning him on it, we will hear the testimony of Dr. Charles Schultze, former Director of the Bureau of the Budget and now a senior fellow at The Brookings Institution and professor of economics at the University of Maryland. In tomorrow’s session, the testimony of Senator William Fulbright will be heard, as well as that of three prominent scholars. A

* “Joint Economic Report on the 1969 Economic Report of the President,” April 1, 1969. House Report 91-142.

full list of witnesses to be heard by the subcommittee in subsequent hearings is available.

Professor Galbraith, we are delighted to hear you. Won't you come up to the platform? We are honored to have you as our first witness in our hearings.

STATEMENT OF JOHN KENNETH GALBRAITH, PROFESSOR OF ECONOMICS, HARVARD UNIVERSITY

Mr. GALBRAITH. Mr. Chairman and members of the subcommittee, I am very much pleased to be here this morning to help open this important series of hearings. We are all very greatly in your debt, Mr. Chairman, for your effort in winning public attention for the role of the military power in our economic and political life—although perhaps the expressions of gratitude from the Pentagon will be less fervent than one might wish. You can't please everyone. Those of us who have been concerned with this issue over the years have, I believe, a special reason to appreciate your achievement. It is an issue which concerned citizens, including most liberals, have been sweeping under the rug for years. "Ah, yes; something should be done about it—by someone else." Now, thanks to you, it is on the national agenda.

In my brief time this morning, I would like, in a somewhat broader sense, to define the problem. Then I will make a few suggestions that may be helpful in guiding your search for solutions. Now that concern in this broad issue has been aroused we must be certain that it leads to useful accomplishments. I take the liberty, Mr. Chairman, of appending to my remarks the text of a small paper I wrote some months ago on the subject.

Chairman PROXMIRE. I read that article; it is excellent. Without objection, we would be delighted to have it in the record after your remarks. (See p. 9.)

Mr. GALBRAITH. It is in the current issue of *Harper's*, I may add.

The importance of military spending in the economy—half the Federal budget, about one-tenth of the total economic product, I need not stress. Though much attention is focused upon it, this bloodless economic side is not, I venture to think, the important feature. The important feature is the peculiar constitutional and bureaucratic arrangements which have come to govern this economic activity.

In our ordinary economic arrangements we think of the individual as instructing the market by his purchases and, the market, in turn, instructing the producing firm. Thus economic life is controlled. This the textbooks celebrate. And where public expenditures are concerned, the young are still taught that the legislature reflects the will of the citizen to the executive. The executive, in turn, effects that will.

I have argued that with industrial development—with advanced technology, high organization, large and rigid commitments of capital—power tends to pass to the producing organization—to the modern large corporation. Not the consumer but General Motors tends to be the source of the original decision on the modern automobile. If the consumer is reluctant he is persuaded—to a point at least.

This part of my case has not escaped argument. Dissent raises its head everywhere these days. But where military goods are concerned one encounters little or no argument. Here, it is agreed, the historic economic and constitutional sequence is reversed. The citizen does not instruct the legislature and the legislature the Pentagon and its associated industries. No one wants to be that naive. Vanity here becomes the ally of truth. It is agreed that the services and the weapons manufacturers decide what they want or need. They then instruct the Congress. The Congress, led by the military housecarls among its members, hastens to comply. The citizen plays no role except to pay the bill. As I say, these matters are not subject to serious dispute, those with a special capacity to believe in fairy tales apart.

The power that has brought about this remarkable reversal—has assumed this authority—has, of course, been well identified. It is the military services acting individually or in association through the Department of Defense and the large military contractors. The latter, an important point, are few in number and highly specialized in their service to the military. In 1968, a hundred large firms had more than two-thirds—67.4 percent—of all defense business. Of these hundred, General Dynamics and Lockheed had more than the smallest 50. A dozen firms specializing more or less completely on military business—McDonnell Douglas, General Dynamics, Lockheed, United Aircraft—together with General Electric and AT & T and a few more, had a third of all business. For most business firms defense business is inconsequential except as it affects prices, labor and material supply—and taxes. The common belief that all business benefits from weapons orders is quite wrong. For a few it is a rewarding source of business. The great multitude of business firms merely pay. The regional concentration, I might add, is equally high; in 1967 a third of all contracts went to California, New York and Texas. Ten States received two-thirds. And no one should be misled by the argument that this picture is substantially altered by the distribution of subcontracts.

One must not think of the military power—the association of the military and the defense firms—in conspiratorial terms. It reflects an intimate but largely open association based on a solid community of bureaucratic and pecuniary interest. The services seek the weapons; the suppliers find it profitable to supply them. The factors which accord plenary power of decision to the military and the defense plants, and which exclude effective interference by the Congress and the public, are quite commonplace. Nothing devious or wicked is involved. The following are the factors which sustain the military power.

First. There is the use of fear. This, of course, is most important. Anything which relates to war, and especially to nuclear conflict, touches a deeply sensitive public nerve. This is easily played on. The technique is to say, in effect, "Give us what we ask, do as we propose, or you will be in mortal danger of nuclear annihilation." In this respect one must pause to pay tribute to Secretary of Defense Laird. He has shown himself, on this matter, to have a very high learning skill.

Second. There is the monopoly, or near monopoly, of technical and intelligence information by the services, their suppliers, and the intelligence community. This monopoly, in turn, is protected by classification secrecy. This allows the military power to exclude the lay critic, including the legislator, as uninformed. But even the best scientist can be excluded on the grounds that he is not fully informed on the latest secret technology—or does not have the latest knowledge on what the Soviets or the Chinese are up to. Here, too, the new administration has been very apt. If Secretary Laird deserves a special word of commendation on the way he has learned to use fear, Under Secretary Packard must be congratulated on the speed with which he has learned to discount criticism as inadequately informed of the latest secrets.

Third. There is the role of the single-firm supplier and the negotiated contract. These are largely inevitable with high technology. One cannot let out the MIRV to competitive bidding in the manner of mules and muskets. In fiscal year 1968, as the work of this committee has revealed, 60 percent of defense contracts were with firms that were the sole source of supply. Most of the remainder were awarded by negotiated bidding. Competitive bidding—11.5 percent of the total—was nearly negligible. With single-firm supply, and in lesser degree with negotiated supply, opposition of interest between buyer and seller disappears. The buyer is as interested in the survival and well-being of the seller as is the seller himself. No one will enter this Elysium to cut prices, offer better work, earlier deliveries, or cry favoritism if someone gets too much of that particular business. That is because there is no other seller. The situation, if I may be permitted to coin a word, is cozy.

Fourth. There is the fiction that the specialized arms contractor is separate from the services. The one is in the public sector. The other is private enterprise. As Professor Murray Weidenbaum, the notable authority on these matters who is well known to this committee, as well as others have pointed out, the dividing line between the services and their specialized suppliers exists increasingly in the imagination. Where a corporation does all or nearly all of its business with the Department of Defense; uses much plant owned by the Government; gets its working capital in the form of progress payments from the Government; does not need to worry about competitors for it is the sole source of supply; accepts extensive guidance from the Pentagon on its management; is subject to detailed rules as to its accounting; and is extensively staffed by former service personnel, only the remarkable flexibility of the English language allows us to call it private enterprise. Yet this is not an exceptional case, but a common one. General Dynamics, Lockheed, North American-Rockwell and such are public extensions of the bureaucracy. Yet the myth that they are private allows a good deal of freedom in pressing the case for weapons, encouraging unions and politicians to do so, supporting organizations such as the Air Force Association which do so, allowing executives to press the case and otherwise protecting the military power. We have an amiable arrangement by which the defense firms, though

part of the public bureaucracy, are largely exempt from its political and other constraints.

Fifth. This is a more subtle point. For a long period during the 1950's and 1960's, during which the military power was consolidating its position, military expenditures had a highly functional role in the economy. They sustained employment; they also supported, as no other expenditures do, a high technical dynamic. And there was no wholly satisfactory substitute. More specifically, a high Federal budget, supported by the corporate and progressive personal income tax, both of which increased more than proportionally with increasing income and reduced themselves more than proportionally if income faltered, built a high element of stability into the system. And the scientific and technical character of this outlay encouraged the expansion of the educational and research plant and employed its graduates. It was long a commonplace of Keynesian economics that civilian spending, similarly supported by a progressive tax system, would serve just as well the goals of fiscal stability as military spending. This argument which, alas, I have used my self on occasion was, I am now persuaded, wrong—an exercise in apologetics. Civilian spending does not evoke the same support as does military spending on a large scale. Even in these enlightened days, I am told, Representative Rivers prefers naval ships to the Job Corps. And although it is now hard to remember, the civilian pressures on the Federal budget until recent times were not extreme. Taxes were reduced in 1964 because the pressures to spend were not sufficient to offset tax collections at a high level of output—to neutralize the so-called fiscal drag. And civilian welfare spending does not support the same range of scientific and technical activities, or the related institutions, as does military spending. On a wide range of matters—electronics, air transport, computer systems, atomic energy—military appropriations paid for development costs too great or too risky to be undertaken by private firms. They served as a kind of honorary nonsocialism.

Sixth and finally. There is the capacity—and this, Mr. Chairman, is a notable phenomenon of our time—for organization, bureaucracy, to create its own truth—the truth that serves its purpose. The most remarkable example in recent times, of course, has been Vietnam. The achievements of bureaucratic truth here have been breathtaking. An essentially civilian conflict between the Vietnamese has been converted into an international conflict with a rich ideological portent for all mankind. South Vietnamese dictators of flagrantly regressive instincts have been converted into incipient Jeffersonians holding aloft the banners of an Asian democracy. Wholesale larceny in Saigon has become an indispensable aspect of free institutions. One of the world's most desultory and impermanent armies—with desertion rates running around 100,000 a year—was made, always potentially, into a paragon of martial vigor. Airplanes episodically bombing open acreage or dense jungle became an impenetrable barrier to men walking along the ground. An infinity of reverses, losses and defeats became victories deeply in disguise. There was nothing, or not much, that was cynical in this effort. For, for those who accept bureaucratic

truth, it is the unbelievers who look confused, perverse and very wrong. Throughout the course of the war there was bitter anger in Saigon and to a lesser extent here in Washington, over the inability of numerous people—journalists, professors and others—to see military operations, the Saigon government, the pacification program, the South Vietnam army in the same rosy light as did the bureaucracy. Why couldn't all sensible people be the indignant instruments of the official belief—like Joe Alsop?—if I may pay tribute to the Edward Gibbon of the Vietcong.

An equally spectacular set of bureaucratic truths has been created to serve the military power—and its weapons procurement. There is the military doctrine that whatever the dangers of a continued weapons race with the Soviet Union, these are less than any agreement that offers any perceptible opening for violation. Since no agreement can possibly be watertight, this largely protects the weapons industry from any effort at control. There is the belief that the conflict with communism is man's ultimate battle. Accordingly, no one would hesitate to destroy all life if communism seems seriously a threat. This belief allows acceptance of the arms race and the production of the requisite weapons no matter how dangerous. The present ideological differences between industrial systems will almost certainly look very different and possibly rather trivial from a perspective of 50 or a hundred years hence if we survive. Such thoughts are eccentric. There is also the belief that national interest is total, that of man inconsequential. So even the prospect of total death and destruction does not deter us from developing new weapons systems if some thread of national interest can be identified in the outcome. We can accept 75 million casualties—preferably not including ourselves—if it forces the opposition to accept 150 million. We can agree with Senator Richard Russell that, if only one man and one woman are to be left on earth, they should be Americans. Not from any particular part of the country, just Americans. We can make it part of the case for the Manned Orbiting Laboratory (MOL) that it would maintain the American position up in space in the event of total devastation from Maine to California. Such is the power of bureaucratic truth that these things are widely accepted. And being accepted they sustain the military power.

What now should be our response? How do we get the power under control?

Our response must be in relation to the sources of power. Again for purposes of compressing this discussion, let me list specific points:

1. Everyone must know that fear is deployed as a weapon. So we must resist it. I am not a supporter of unilateral disarmament. I assume that the Soviets also have their military power sustained by its bureaucratic beliefs. But we must look at the problem calmly. We must never again be stampeded into blind voting for military budgets. These, as a practical matter, are as likely to serve the bureaucratic goals of the military power and the pecuniary goals of the contractors as they do the balance of terror with the Soviets. And we must ascertain which.

2. That part of the military budget that serves the balance of terror can be reduced only with negotiations with the Soviets. As Charles Schultze—who will follow me here this morning—and others have pointed out, however, this is a relatively small part of the military budget. The rest serves the goals of the military power and the interests of the suppliers. This can be curtailed. But it can only be curtailed if there is a vigorous reassertion of congressional power. Obviously this will not happen if sycophants of the military remain the final word on military appropriations. The Congress has the choice of serving the people in accordance with constitutional design or serving Senator Russell and Representative Rivers in accordance with past habit.

3. Informed technical and scientific judgment must be brought to bear on the foregoing questions. This means that the Congress must equip itself with the very best of independent scientific judgment. And the men so mobilized must not be denied access to scientific and intelligence information. I believe that on military matters there should be a panel of scientists, a Military Audit Commission, responsible only to the Congress—and not necessarily including Edward Teller—to be a source of continuing and informed advice on military needs—and equally on military non-needs.

4. We must, as grownup people, abandon now the myth that the big defense contractors are something separate from the public bureaucracy. They must be recognized for what they are—a part of the public establishment. Perhaps one day soon a further step should be taken. Perhaps any firm which, over a 5-year period, has done more than 75 percent of its business with the Defense Department, should be made a full public corporation with all stock in public hands. No one will make the case that this is an assault on private enterprise. These firms as I said before, are private only in the imagination. The action would insure that such firms are held to strict standards of public responsibility in their political and other activities and expenditures. It would exclude the kind of conspiracy to protect capital gains that was recently uncovered in the Lockheed case. It would help prevent private enrichment at public expense. In light of the recent performance of the big defense contractors, no one would wish to argue that it would detract from efficiency. And the 75-percent rule would encourage firms that wish to avoid nationalism to diversify into civilian production. Needless to say, the 75-percent rule should be applicable to the defense units of the conglomerates. Perhaps to press this reform now would direct energies from more needed tasks. Let us, however, put it on the agenda.

5. Finally, it must be recognized that the big defense budgets of the 1950's were a unique response to the conditions of that time. Then there were the deep fears generated by the cold war, the seeming unity of the Communist world, and, at least in comparison with present circumstances, the seeming lack of urgency of domestic requirements. All this has now changed. We have a wide range of tacit understandings with the Soviets; we have come to understand that the average Soviet citizen—in this respect like the average American voter—is unrespon-

sive to the idea of nuclear annihilation. The Communist world has since the 1950's split into quarrelling factions. I am enchanted to reflect on the Soviet staff studies of the military potential of the Czech army in case of war. Perhaps, as I have said elsewhere, we have here the explanation of the odd passion that the Russians show for the Egyptian army. And as all philosophers of the commonplace concede, we have the terrible urgency of civilian needs—of the cities, the environment, transportation, education, housing, indeed wherever we look. It is now even agreed as to where the first danger to American democracy—if there is one—lies. It is not from the Soviet Union, China. The first danger is from the starvation of our public services, particularly in our big cities, here at home.

Mr. Chairman, let me make one final point. Our concern here I would urge, is not with inefficiency in military procurement. Nor is it with graft. These divert attention from the main point. And I would like to suggest this is not a crusade against military men—against our fellow citizens in uniform. Soldiers were never meant to be commercial accessories of General Dynamics. It would horrify the great captains of American arms of past generations to discover that their successors are by way of becoming commercial accessories of Lockheed Aircraft Corp.

The matter for concern is with the military power—a power that has passed from the public and the Congress to the Pentagon and its suppliers. And our concern is with the consequences—with the bloated budgets and bizarre bureaucratic truths that result. The point is important for it suggests that the restoration of power to the Congress is not a sectarian political task. It is one for all who respect traditional political and constitutional processes.

(The paper by Mr. Galbraith, referred to in the preceding text on p. 3, follows:)

HOW TO CONTROL THE MILITARY

JOHN KENNETH GALBRAITH

Vietnam was only a minor example of its instinct for disaster. Herewith a moderate's program.

1

Last January as he was about to leave office, Lyndon Johnson sent his last report on the economic prospect to the Congress. It was assumed that, in one way or another, the Vietnam war, by which he and his Administration had been destroyed, would come gradually to an end. The question considered by his economists was whether this would bring a decrease or an increase in military spending. The military budget for fiscal 1969 was 78.4 billions; for the year following, including pay increases, it was scheduled to be about three billion higher. Thereafter, assuming peace and a general withdrawal from Asia, there would be a reduction of some six or seven billions. But this was only on the assumption that the Pentagon did not get any major new weapons—that it was content with what had already been authorized. No one really thought this possible. The President's economists noted that plans already existed for "a package" consisting of new aircraft, modern naval vessels, defense installations and "advanced strategic and general purpose weapons systems" which would cost many billions. This would wipe out any savings from getting out of Vietnam. Peace would now be far more expensive than war.

With Richard Nixon, the prospect for increased arms spending would seem superficially to be better. During the election campaign, he promised to establish a clear military superiority over the Soviets, an effort he could not believe would escape their attention. Their response would also be predictable and would require a yet larger effort here. (At his first press conference, Mr. Nixon retreated from "superiority" to "sufficiency.")

Melvin Laird, the new Secretary of Defense, while in the Congress was an ardent spokesman for the military viewpoint, which is to say for military spending. And his Under Secretary of Defense, David Packard, though the rare case of a defense contractor who had spoken for arms control, was recruited from the every heart of the military-industrial complex.

Just prior to Mr. Nixon's inauguration, the Air Force Association, the most eager spokesman for the military and its suppliers, said happily that "If the new Administration is willing to put its money where its mouth is in national defense some welcome changes are in the offing." And speaking to a reporter, J. Leland Atwood, president and chief executive officer of North American Rockwell, one of the half dozen biggest defense firms, sized up the prospect as follows: "All of Mr. Nixon's statements on weapons and space are very positive. I think he has perhaps a little more awareness of these things than some people we've seen in the White House." Since no one had previously noticed the slightest unawareness, Mr. Atwood considered the prospect very positive indeed.

Yet he could be wrong. Browning observed of Jove that he strikes the Titans down when they reach the peak—"when another rock would crown the work." When I started work on this paper some months ago, I hazarded the guess that the military power was by way of provoking the same public reaction as did the Vietnam War. Now this is no longer in doubt. If he remains *positive*, the military power will almost certainly do for President Nixon what Vietnam did for his predecessor. But it might also lead him to a strenuous effort to avoid the Johnson fate. Mr. Nixon has not, in the past, been notably indifferent to his political career. The result in either case would be an eventual curb on the military power—either from Mr. Nixon or his successor.

Or so it would seem. What is clear is that a drastic change is occurring in public attitudes toward the military and its industrial allies which will not for long be ignored by politicians who are sensitive to the public mood. And from this new political climate will come the chance for reasserting control.

The purpose of this article is to see the nature of the military power, assess its strengths and weaknesses and suggest the guidelines for regaining control. For no one can doubt the need for doing so.

2

The problem of the military power is not unique; it is merely a rather formidable example of the tendency of organization, in an age of organization, to develop a life and purpose and truth of its own. This tendency holds for all great bureaucracies, both public and private. And their action is not what serves a larger public interest, their belief does not reflect the reality of life. What is done and what is believed are, first and naturally, what serve the goals of the bureaucracy itself. Action in the organization interest, or in response to the bureaucratic truth, can thus be a formula for public disservice or even public disaster.

There is nothing academic about this possibility. There have been many explanations of how we got into the Vietnam war, an action on which even the greatest of the early enthusiasts have now lapsed into discretion. But all explanations come back to one. It was the result of a long series of steps taken in response to a bureaucratic view of the world—a view to which a President willingly or unwillingly yielded and which, until much too late, was unchecked by any legislative or public opposition. This view was of a planet threatened by an imminent takeover by the unified and masterful forces of the Communist world, directed from Moscow (or later and with less assurance from Peking) and coming to a focus, however improbably, some thousands of miles away in the activities of a few thousand guerrillas against the markedly regressive government of South Vietnam.

The further bureaucratic truths that were developed to support this proposition are especially sobering. What was essentially a civil war between the

Vietnamese was converted into an international conflict with rich ideological portent for all mankind. South Vietnamese dictators became incipient Jeffersonians holding aloft the banners of an Asian democracy. Wholesale grafts in Saigon became an indispensable aspect of free institutions. An elaborately rigged election became a further portent of democracy. One of the world's most desultory and impermanent armies became, always potentially, a paragon of martial vigor. Airplanes episodically bombing open acreage or dense jungle became an impenetrable barrier to men walking along the ground. An infinity of reverses, losses and defeats became victories deeply in disguise. Such is the capacity of bureaucracy to create its own truth.

There was nothing, or certainly not much, that was cynical in this effort. Most of the men responsibly involved accepted the myth in which they lived a part. For from the inside it is the world outside which looks uninformed, perverse and very wrong. Throughout the course of the war there was bitter anger in Washington and Saigon over the inability of numerous journalists to see military operations, the Saigon government, the pacification program, the South Vietnam army in the same rosy light as did the bureaucracy. Why couldn't they be indignant instruments of the official belief—like Joseph Alsop?

As many others have observed, the epitome of the organization man in our time was Secretary of State Dean Rusk. Few have served organization with such uncritical devotion. A note of mystification, even honest despair, was present in his public expression over the inability of the outside world to accept the bureaucratic truths just listed. Only the eccentrics, undisciplined or naive, failed to accept what the State Department said was true. His despair was still evident as he left office, his career in ruins, and the Administration of which he was the ranking officer destroyed by action in pursuit of these beliefs. There could be no more dramatic—or tragic—illustration of the way organization capture men for its truths.

But Vietnam was not the first time men were so captured—and the country suffered. Within this same decade there was the Bay of Pigs, now a textbook case of bureaucratic self-deception. Organization needed to believe that Castro was toppling on the edge. Communism was an international conspiracy; hence it could have no popular local roots; hence the Cuban people would welcome the efforts to overthrow it. Intelligence was made to confirm these beliefs for if it didn't it was, by definition, defective information. And, as an unpopular tyranny, the Castro government *should* be overthrown. Hence the action, thus the disaster. The same beliefs played a part in the military descent, against largely nonexistent Communists, on the Dominican Republic.

But the most spectacular examples of bureaucratic truth are those that serve the military power—and its weapons procurement. These have not yet produced anything so dramatic as the Vietnam, Bay of Pigs or Dominican misadventures but their potential for disaster is far greater. These beliefs and their consequences are worth specifying in some detail.

There is first the military belief that whatever the dangers of a continued weapons race with the Soviet Union these are less than any agreement that offers any perceptible openings for violation. If there is such an opening, the Soviets will exploit it. Since no agreement can be watertight, this goes far to protect the weapons race from any effort at control.

Secondly, there is the belief that the conflict with communism is man's ultimate battle. Accordingly, one would not hesitate to destroy all life if communism seems seriously a threat. This belief allows acceptance of the arms race no matter how dangerous. The present ideological differences between industrial systems will almost certainly look very different and possibly rather trivial from a perspective of fifty or a hundred years hence if we survive. Such thoughts are eccentric.

Third, the national interest is total, that of man inconsequential. So even the prospect of total death and destruction does not deter us from developing new weapons systems if some thread of national interest can be identified in the outcome. We can accept 75 million casualties if it forces the opposition to accept 150 million. This is the un sentimental calculation. Even more un sentimentally, Senator Richard Russell, the leading Senate spokesman of the military power, argued on behalf of the Army's Sentinel Anti-Ballistic Missile System (ABM)

that, if only one man and one woman are to be left on earth, it was his deep desire that they be Americans. It was part of the case for the Manned Orbiting Laboratory (MOL) that it would maintain the national position in the event of extensive destruction down below.

Such, not secretly but as they have been articulated, are the organization truths of the military power. The beliefs that got us into (and keep us in) Vietnam in their potential for disaster pale as compared with these doctrines. We shall obviously have accomplished little if we get out of Vietnam but leave unchecked in the government the capacity for this kind of bureaucratic truth. What, in tangible form, is the organization which avows these truths?

3

It is an organization or a complex of organizations and not a conspiracy. Although Americans are probably the world's least competent conspirators—partly because no other country so handsomely rewards in cash and notoriety the man who blows the whistle on those with whom he is conspiring—we have a strong instinct for so explaining that of which we disapprove. In the conspiratorial view, the military power is a collusion of generals and conniving industrialists. The goal is mutual enrichment; they arrange elaborately to feather each other's nest. The industrialists are the *deus ex machina*; their agents make their way around Washington arranging the pay-off. If money is too dangerous, then alcohol, compatible women, more prosaic forms of entertainment or the promise of future jobs to generals and admirals will serve.

There is such enrichment and some graft. Insiders do well. H. L. Nieburg has told the fascinating story of how in 1954 two modestly paid aerospace scientists, Dr. Simon Ramo and Dr. Dean Wooldridge, attached themselves influentially to the Air Force as consultants and in four fine years (with no known dishonesty) ran a shoe-string of \$6,750 apiece into a multi-million dollar fortune and a position of major industrial prominence.¹ (In 1967 their firm held defense contracts totalling \$121,000,000.) Senator William Proxmire, a man whom many in the defense industries have come to compare unfavorably to typhus, has recently come up with a fascinating contractual arrangement between the Air Force and Lockheed for the new C-5A jet transport. It makes the profits of the Company greater the greater its costs in filling the first part of the order, with interesting incentive effects. A recent Department of Defense study reached the depressing conclusion that firms with the poorest performance in designing highly technical electronic systems—and the failure rate was appalling—have regularly received the highest profits. In 1960, 691 retired generals, admirals, naval captains and colonels were employed by the ten largest defence contractors—186 by General Dynamics alone. A recent study made at the behest of Senator Proxmire found 2,072 employed in major defense firms with an especially heavy concentration in the specialized defense firms.² It would be idle to suppose that presently service officers—those for example on assignment to defense plants—never have their real income improved by the wealthy contractors with whom they are working, forswear all favors, entertain themselves and sleep austere alone. Nor are those public servants who show zeal in searching out undue profits or graft reliably rewarded by a grateful public. Mr. A. E. Fitzgerald, the Pentagon management expert who became disturbed over the C-5A contract with Lockheed and communicated his unease and its causes to the Proxmire Committee, had his recently acquired civil service status removed and was the subject of a fascinating memorandum (which found its way to Proxmire) outlining the sanctions appropriate to his excess of zeal. Pentagon officials explained that Mr. Fitzgerald had been given his civil service tenure as the result of a computer error (the first of its kind) and the memorandum on appropriate punish-

¹ *In the Name of Science*. Chicago: Quadrangle Press, 1966. This is a book of first rate importance which the author was so unwise as to publish some three years before concern for the problems he discusses became general. But perhaps he made it so.

² General Dynamics 113, Lockheed 210, Boeing 169, McDonnell Douglas 141, North American Rockwell 104, Ling-Temco-Vought, Inc 69. All of these firms are heavily specialized to military business and General Dynamics, Lockheed, McDonnell Douglas and North American Rockwell almost completely so.

ment was a benign gesture of purely scholarly intent designed to specify those punishments against which such a sound public servant should be protected.

Nonetheless, the notion of a conspiracy to enrich and corrupt is gravely damaging to an understanding of the military power. It causes men to look for solutions in issuing regulations, enforcing laws or sending people to jail. It also, as a practical matter, exaggerates the role of the defense industries in the military power—since they are the people who make the most money, they are assumed to be the ones who, in the manner of the classical capitalist, pull the strings. The armed services are assumed to be in some measure their puppets. The reality is far less dramatic and far more difficult of solution. The reality is a complex of organizations pursuing their sometimes diverse but generally common goals. The participants in these organizations are mostly honest men whose public and private behavior would withstand public scrutiny as well as most. They live on their military pay or their salaries as engineers, scientists or managers or their pay and profits as executives and would not dream of offering or accepting a bribe.

The organizations that comprise the military power are the four Armed Services, and especially their procurement branches. And the military power encompasses the specialized defense contractors—General Dynamics, McDonnell Douglas, Lockheed or the defense firms of the agglomerates—of Ling-Temco-Vought or Litton Industries. (About half of all defense contracts are with firms that do relatively little other business.) And it embraces the defense divisions of primarily civilian firms such as General Electric or A.T.&T. It draws moral and valuable political support from the unions. Men serve these organizations in many, if not most, instances because they believe in what they are doing—because they have committed themselves to the bureaucratic truth. To find and scourge a few malefactors is to ignore this far more important commitment.

The military power is not confined to the Services and their contractors—what has come to be called the military-industrial complex. Associate membership is held by the intelligence agencies which assess Soviet (or Chinese) actions or intentions. These provide, more often by selection than by any dishonesty, the justification for what the Services would like to have and what their contractors would like to supply. Associated also are Foreign Service Officers who provide a civilian or diplomatic gloss to the foreign policy positions which serve the military need. The country desks at the State Department, a greatly experienced former official and ambassador has observed, are often “in the hip pocket of the Pentagon—lock, stock and barrel, ideologically owned by the Pentagon.”³

Also a part of the military power are the university scientists and those in such defense-oriented organizations as RAND, the Institute for Defense Analysis and Hudson Institute who think professionally about weapons and weapons systems and the strategy of their use. And last, but by no means least, there is the organized voice of the military in the Congress, most notably on the Armed Services Committees of the Senate and House of Representatives. These are the organizations which comprise the military power.

The men who comprise these organizations call each other on the phone, meet at committee hearings, serve together on teams or task forces, work in neighboring offices in Washington or San Diego. They naturally make their decisions in accordance with their view of the world—the view of the bureaucracy of which they are a part. The problem is not conspiracy or corruption but unchecked rule. And being unchecked, this rule reflects not the national need but the bureaucratic need—not what is best for the United States but what the Air Force, Army, Navy, General Dynamics, North American Rockwell, Grumman Aircraft, State Department representatives, intelligence officers and Mendel Rivers and Richard Russell believe to be best.

³ Ralph Dungan, formerly White House aide to Presidents Kennedy and Johnson and former Ambassador to Chile. Quoted in George Thayer, *The War Business*, New York: Simon and Schuster. (To be published) The appearance of the State Department as a full-scale participant in the military power may have been the hopefully temporary achievement of Secretary Rusk. Apart from a high respect for military acumen and need, he in some degree regarded diplomacy as subordinate to military purpose. In time, such attitudes penetrate deeply into organization.

In recent years, Air Force generals, perhaps the most compulsively literate warriors since Caesar, have made their views of the world scene a part of the American folklore. (See the box on this page.) These in all cases serve admirably the goals of their Service and the military power in general. Similarly with the other participants.

Not long ago, Bernard Nossiter, the brilliant economic reporter of the *Washington Post*, made the rounds of some of the major defense contractors to get their views of the post-Vietnam prospect. All, without exception, saw profitable tension and conflict. Edward J. Lefevre, the vice president in charge of General Dynamics' Washington office, said, "One must believe in the long term threat." James J. Ling, the head of Ling-Temco-Vought, reported that "Defense spending has to increase in our area because there has been a failure to initiate—if we are not going to be overtaken by the Soviets." Samuel F. Downer, one of Mr. Ling's vice presidents, was more outspoken. "We're going to increase defense budgets as long as those bastards in Russia are ahead of us." A study of the Electronics Industries Association also dug up by Mr. Nossiter (to whom I shall return in a moment) discounted the danger of arms control, decided that the "likelihood of limited war will increase" and concluded that "for the electronic firms, the outlook is good in spite [sic] of [the end of hostilities in] Vietnam."

From the foregoing beliefs, in turn, comes the decision on weapons and weapons systems and military policy generally. No one can tell where the action originates—whether the Services or the contractors initiate decisions on weapons—nor can the two be sharply distinguished. Much of the plant of the specialized defense contractors is owned by the government. Most of their working capital is supplied by the government through progress payments—payments made in advance of completion of the contract. The government specifies what the firm can and cannot charge to the government. The Armed Services Procurement Regulation states that "Although the government does not expect to participate *in every management* decision, it may reserve the right to review the contractor's management efforts . . ." (Italics added.)⁴

In this kind of association some proposals will come across the table from the military. Some will come back from the captive contractors. Nossiter asked leading contractors, as well as people at the Pentagon, about this. Here are some of the answers:

From John W. Bessire, General Manager for Pricing, General Dynamics, Fort Worth:

"We try to forsee the requirements the military is going to have three years off. We work with their requirements people and therefore get new business."

From Richard E. Adams, Director of Advanced Projects, Fort Worth Division of General Dynamics, who thought the source was the military:

"Things are too systematized at the Pentagon for us to invent weapons systems and sell them on a need."

On the influence of the military, he added:

"We know where the power is (on Capital Hill and among Executive Departments.) There's going to be a lot of defense business and we're going to get our share of it."

From John R. Moore, President of Aerospace and Systems Group of North American Rockwell:

"A new system usually starts with a couple of military and industry people getting together to discuss common problems."

After noting that most of his business came from the requirements "established by the Defense Department and NASA," he concluded:

"But it isn't a case of industry here and the Government here. They are interacting continuously at the engineering level."

And finally from a high civilian in the Pentagon:

"Pressures to spend more . . . In part they come from the industry selling new weapons ideas and in part from the military here. Each military guy has his own piece, tactical, antisubmarine, strategic. Each guy gets where he is by pushing his particular thing."

⁴ Murray L. Weidenbaum, "Arms and the American Economy: A Domestic Convergence Hypothesis." *American Economic Review*. Papers and Proceedings, 1968. Page 434.

He added:

"Don't forget, too, part of it is based on the perception of needs by people in Congress."

The important thing is not where the action originates but in the fact that it serves the common goals of the military and the defense contractors. It is, in the language of labor relations, a sweetheart deal between those who sell to the government and those who buy. Once competitive bidding created an adversary relationship between buyer and seller sustained by the fact that, with numerous sellers, any special relationship with any one must necessarily provoke cries of favoritism. But modern weapons are bought overwhelmingly by negotiation and in most cases from a single source of supply. (In the fiscal year ending in 1968, General Accounting Office figures show that 57.9 percent of the \$43 billion in defense contracts awarded in that year was by negotiation with a single source of supply. Of the remainder 30.6 percent was awarded by negotiation where alternative sources of supply had an opportunity to participate and only 11.5 percent was open to advertised competitive bidding.)⁵ Under these circumstances, the tendency to any adversary relationship between the Services and their suppliers is minimal. Indeed, where there are only one or two sources of supply for a weapons system, the interest of the Services in sustaining a source of supply will be no less than that of the firm in question in being sustained.

Among those who spoke about the sources of ideas on weapons needs, no one was moved to suggest that public opinion played any role. The President, as the elected official responsible for foreign policy, was not mentioned. The Congress came in only as an afterthought. And had the Pentagon official who mentioned the Congress been pressed, he would have agreed that its "perception of needs" is a revelation that almost always results from prompting by either the military or the defense industries. It was thus, for example, that the need for a new generation of manned bombers was perceived (and provided for) by Congress though repeatedly vetoed as unnecessary by Presidents Kennedy and Johnson. But in the past the role of the Congress has been overwhelmingly acquiescent and passive.

"... an established tradition . . . holds that a bill to spend billions of dollars for the machinery of war must be rushed through the House and the Senate in a matter of hours, while a treaty to advance the cause of peace, or a program to help the underdeveloped nations . . . guarantee the rights of all our citizens, or . . . to advance the interests of the poor must be scrutinized and debated and amended and thrashed over for weeks and perhaps months."⁶

4

We see here a truly remarkable reversal of the American political and economic system as outlined by the fathers and still portrayed to the young. That view supposes that ultimate authority—ultimate sovereignty—lies with the people. And this authority is assumed to be comprehensive. Within the ambit of the state the citizen expresses his will through the men—the President and members of the Congress—whom he elects. Outside he accomplishes the same thing by his purchases in the market. These instruct supplying firms—General Motors, General Electric, Standard Oil of New Jersey—as to what they shall produce and sell. But here we find the armed services, or the corporations that supply them, making the decisions and instructing the Congress and the public. The public accepts whatever is so decided and pays the bill. This is an age when the young are being instructed, in my view rightly although with unnecessary solemnity, to respect constitutional process and seek change within the framework of the established political order. And we find the assumed guardians of that order, men with no slight appreciation of their righteousness and respectability, calmly turning it upside down themselves.

⁵ Testimony by Elmer B. Staats, Comptroller General. Before the Proxmire Committee, November 11, 1968. (*Economics of Military Procurement*, Hearings, pt. 1, Subcommittee on Economy in Government, Joint Economic Committee, U.S. Congress.)

⁶ Senator Gaylord Nelson, U.S. Senate, Feb., 1964. Quoted by Julius Duschka, *Arms, Money and Politics*. (New York: Ives, Washburn), 1965, p. 2.

How did this remarkable reversal in the oldest of constitutional arrangements come about? How, in particular, did it come about in a country that sets great store by individual and citizen rights and which traditionally has been suspicious of military, industrial and bureaucratic power? How did it come to allow these three forces to assert their authority over a tenth of the economy and something closer to ten tenths of our future?⁷

5

Six things brought the military-industrial bureaucracy to its present position of power. To see these forces is also to be encouraged by the chance for escape.

First, there has been, as noted, the increasing bureaucratization of our life. In an economically and technologically complex society, more and more tasks are accomplished by specialists. Specialists must then have their knowledge and skills united by organization. Organization then, as we have seen, proceeds to assert its needs and beliefs. These will not necessarily be those of the individual or community.

In what Ralph Lapp has called the weapons culture, both economic and technological complexity are raised to the highest power. So, accordingly, is the scope and power of organization. So, accordingly, is the possibility of self-serving belief.

It is a power however, which brings into existence its own challenge. The same technical and social complexity that requires organization requires that there be large numbers of trained and educated people. Neither these people nor the educational establishment that produces them are docile in the face of organization. So with organization come people who resist it—who are schooled to assert their individual beliefs and convictions. No modern military establishment could expect the disciplined obedience which sent the young by the millions. (In the main, lightly schooled lads from the farm) against the machine guns as late as World War I.

The reaction to organization and its beliefs may well be one of the most rapidly developing political moods of our time. Clearly it accounted for much of the McCarthy strength in the last year—for if Dean Rusk or General Westmoreland were the epitome of the organization man, Eugene McCarthy was its antithesis. Currently one sees it sweeping ROTC off the campuses—or out of the university curricula. It is causing recruiting problems for big business—and not alone the defense firms. One senses, if the draft survives, that it will cause great trouble for the peacetime armed forces.

But so far the impressive thing is the power that massive organization has given to the military-industrial complex and not the resistance it is arousing. The latter is for the future.

Second in importance in bringing the military-industrial complex to power were the circumstances and images of foreign policy in the late forties, fifties and early sixties. The Communist world, as noted, was viewed as a unified imperium mounting its claim to every part of the globe. The postwar pressure on eastern Europe and on Berlin, the Chinese Revolution and the Korean War, seemed powerful evidence in the case. And, after the surprisingly early explosion of the first Soviet atomic bomb, followed within a decade by the even more astonishing flight of the first Sputnik, it was easy to believe that the Communist world was not only politically more unified than the rest but technologically superior as well.

The natural reaction was to delegate power and concentrate resources. The military services and their industrial allies were given unprecedented authority—as much as in World War II—to match the Soviet technological initiative. And the effort of the nation's scientists (and other scholars) was concentrated

⁷ I have argued elsewhere (*The New Industrial State*, Boston: Houghton Mifflin, 1967) that with increasing industrialization the sovereignty of the consumer or citizen yields to the sovereignty of the producer or public bureaucracy. Increasingly the consumer or citizen is made subordinate to their needs. I have been rather sharply challenged. Both liberals and conservatives have denied the tendency or, possibly, held it too horrible to contemplate. But in the very important area of military production, about 10 percent of the total, we see that producer sovereignty is accepted and avowed. Not even my most self-confident critics would be wholly certain of my error here.

in equally impressive fashion. None or almost none remained outside. Robert Oppenheimer was excluded, not because he opposed weapons development in general or the hydrogen bomb in particular but because he thought the latter unnecessary and undeliverable. That anyone, on grounds of principle, should refuse his services to the Pentagon or Dow Chemical was nearly unthinkable. Social scientists responded eagerly to invitations to spend the summer at RAND. They devoted their winters to seminars on the strategy of defense and deterrence. The only question in this time was whether a man could get a security clearance. The extent of a man's access to secret matters measured his responsibility and influence in public affairs and prestige in the community.

The effect of this concentration of talent was to add to the autonomy and power of the organizations responsible for the effort. Criticism or dissent requires knowledge; the knowledgeable men were nearly all inside. The Eisenhower Administration affirmed the power of the military by appointing Secretaries of Defense who were largely passive except as they might worry on occasion about the cost. The Democrats, worrying about a nonexistent missile gap and fearing, as always, that they might seem soft on communism, accorded the military more funds and power, seeking principally to make it more efficient.

This enfranchisement of the military power was in a very real sense the result of a democratic decision—it was a widely approved response to the seemingly fearsome forces that surrounded us. With time those who received this unprecedented grant of power came to regard it as a right. Where weapons and military decision were concerned, their authority was meant to be plenary. Men with power have been prone to such error.

Third, secrecy confined knowledge of Soviet weapons and responding American action to those within the public and private bureaucracy. No one else had knowledge, hence no one else was qualified to speak. Senior members of the Armed Services, their industrial allies, the scientists, the members of the Armed Services Committees of the Congress were in. It would be hard to imagine a more efficient arrangement for protecting the power of a bureaucracy. In the academic community and especially in Congress there was no small prestige in being a member of this club. So its influence was enhanced by the sense of belonging and serving. And, as the experience of Robert Oppenheimer and other less publicized persons showed, it was possible on occasion to exclude the critic or skeptic as a security risk.

Fourth, there was the disciplining effect of personal fear. A nation that was massively alarmed about the unified power of the Communist world was not tolerant of skeptics or those who questioned the only seemingly practical line of response. Numerous scientists, social scientists and public officials had come reluctantly to accept the idea of the Communist threat. This history of reluctance could now involve the danger—real or imagined—that they might be suspected of past association with this all-embracing conspiracy. The late Senator Joseph R. McCarthy would not have been influential in ordinary times; but he and others saw or sensed the opportunity for exploiting national and personal anxiety. The result was further and decisive pressure on anyone who seemed not to concur in the totality of the Communist threat. (McCarthy was broken only when he capriciously attacked the military power.)

Fear provided a further source of immunity and power. Accepted Marxian doctrine holds that a cabal of capitalists and militarists is the cutting edge of capitalist imperialism and the cause of war. Anyone who raised a question about the military-industrial complex thus sounded suspiciously like a Marxist. So it was a topic that was avoided by the circumspect. Heroism in the United States involves some important distinctions. It requires a man to stand up fearlessly, at least in principle, to the prospect for nuclear extinction. But it allows him to proceed promptly to cover if there is risk of being called a communist, a radical, an enemy of the system. Death we must face but not social obloquy or political ostracism. The effect of such discriminating heroism in the fifties or sixties was that most potential critics of the military power were exceptionally reticent.

In 1961, in the last moments before leaving office, President Eisenhower gave his famous warning: "In the councils of government we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced

power exists and will persist." This warning was to become by a wide margin the most quoted of all Eisenhower statements. This was principally for the flank protection it provided for all who wanted to agree. For many years thereafter anyone (myself included) who spoke to the problem of the military power took the thoughtful precaution of first quoting President Eisenhower. He had shown that there were impeccable conservative precedents for our concern.

Fifth, in the fifties and early sixties, the phrase "domestic priority" had not yet become a cliché. The civilian claim on Federal funds was not, or seemed not to be, overpowering. The great riots in the cities had not yet occurred. The appalling conditions in the urban core that were a cause were still unnoticed. Internal migration had long been under way but millions were yet to come from the rural into the urban slums. Poverty had not yet been placed on the national agenda with the consequence that we would learn how much of it and how abysmal it is. And promises not having been made to end poverty, expectations had not been aroused. The streets of Washington, D.C. were still safer than those of Saigon. Travel by road and commuter train was only just coming to a crawl. Air and water were dirty but not yet lethally so.

In this innocent age, in 1964, taxes were reduced because there seemed to be danger of economic stagnation and unemployment from raising more Federal revenue than could quickly be spent. The then Director of the Budget, Kermit Gordon, was persuaded that if an excess of revenue were available the military would latch on to it. Inflation was not a pressing issue. Military expenditures, although no one wished to say so, did sustain employment. Circumstances could not have been better designed, economically speaking, to allow the military a clear run.

Sixth and finally, in these years both liberal and conservative opposition to the military-industrial power were muted.

Nothing could be expected, in principle, to appeal less to conservatives than a vast increase in bureaucratic power at vast cost. In an earlier age the reaction would have been apoplectic. Some conservatives in an older tradition—men genuinely concerned about the Leviathan State—were aroused. Ernest Weir, the head of National Steel and the foe of F.D.R. and the New Deal, Alf M. Landon, the much underestimated man who opposed Roosevelt in 1936, Marriner Eccles, banker and longtime head of the Federal Reserve, and a few others did speak out. But for most, it was enough that the Communists—exponents of a yet more powerful state and against private property too—were on the other side. One accepted a lesser danger to fight a greater one. And, as always, when many are moderately aroused, some are extreme. It became a tenet of a more extreme conservatism that civilians should never interfere with the military except to provide more money. Nor would there be any compromise with Communism. It must be destroyed. Their military doctrine, as Daniel Bell has said, was "that negotiation with the Communists is impossible, that anyone who discusses the possibility of such negotiation is a tool of the Communists, and that a 'tough policy'—by which, *sotto voce*, is meant a preventative war of a first strike—is the only means of forestalling an eventual Communist victory."⁸ To an impressive extent, in the fifties and sixties, this new conservatism, guided by retired Air Force generals and the redoubtable Edward Teller, became the voice of all conservatism on defense policy.

The disappearance of liberal criticism was almost as complete—and even more remarkable. An association of military and industrial power functioning without restraint would have been expected to arouse liberal passion. So also the appropriation of public power for private purpose by defense contractors, some of them defining missions for the Services so as to require what they had to sell. But liberals did not react. Like conservatives, they accepted a lesser threat to liberty to forestall a greater one. Also, it was not easy for a generation that had asked for more executive power for F.D.R. and his successors over conservative opposition to see danger in any bureaucracy or remedy in stronger legislative control. This was a too radical reversal of liberal form.

The generation of liberals which was active in the fifties and sixties had also been scarred by the tactics of the domestic Communists in politics and the trade

⁸ Quoted by Ralph E. Lapp in *The Weapons Culture*. New York: Norton, 1968, pp. 27-28.

union movement. And members of this generation had seen what happened to friends who had committed themselves to the wartime alliance with the Soviets and had nailed their colors to its continuation after the war. Stalin had let them down with a brutal and for many a mortal thump. Those that escaped, or many of them, made common cause with the men who were making or deploying weapons to resist Communism, urging only, as good liberals, that there was a social dimension to the struggle. As time passed it was discovered that many good and liberal things—foreign aid, technical assistance, travel grants, fellowships, overseas libraries—could be floated on the communist threat. Men of goodwill became accomplished in persuading the more retarded to vote for foreign aid legislation, not as a good thing in itself but as an indispensable instrument in the war against communism. Who, having made this case, could then be critical of military spending for the same purpose?

Additionally in the fifties and sixties American liberals were fighting for a larger Federal budget not for the things it bought but for the unemployment it prevented. Such a budget, with its stabilizing flow of expenditures and supported by personal income taxes which rose and fell with stabilizing effect, was the cornerstone of the New or Keynesian economics. And this economics of high and expanding employment, in turn, was the cornerstone of the liberal position. As noted it was not easy for liberals to admit that defense expenditures were serving this benign social function; when asked they (i.e. we) always said that spending for education, housing, welfare and civilian public works would serve just as well and be much welcomed as an alternative.

But there was then no strong pressure to spend for these better things. Accordingly it was not easy for liberals to become aroused over an arms policy which had such obviously beneficent effects on the economy.

By the early sixties the liberal position was beginning to change. From comparatively early in the Kennedy Administration—the Bay-of-Pigs was a major factor in this revelation—it became evident that a stand would have to be made against policies urged by the military and its State Department allies—against military intervention in Cuba, military intervention in Laos, military intervention in Vietnam, an all-out fallout shelter program, unrestricted nuclear testing, all of which would be disastrous for the President as well as for the country and world. A visible and sometimes sharp division occurred between those who, more or less automatically, made their alliance with the military power, and those—Robert Kennedy, Adlai Stevenson, Theodore Sorensen, Arthur Schlesinger, Averell Harriman and, though rendering more homage to the organizations of which they were a part, George Ball and Robert McNamara—who saw the dangers of this commitment. With the Johnson Administration this opposition disappeared or was dispersed. The triumph of those who allied themselves with the bureaucracy was the disaster of that Administration.

The opposition, much enlarged, then reappeared in the political theater. Suspicion of the military power in 1968 was the most important factor uniting the followers of Senators Kennedy, McCarthy and McGovern. Along with the more specific and more important opposition to the Vietnam conflict, it helped to generate the opposition that persuaded Lyndon Johnson not to run. And the feeling that Vice President Humphrey was not sufficiently firm on this issue—that he belonged politically to the generation of liberals that was tolerant of the military-industrial power—unquestionably diluted and weakened his support. Conceivably it cost him the election.

6

To see the sources of the strength of the military-industrial complex in the fifties and sixties is to see its considerably greater vulnerability now. The Communist imperium, which once seemed so fearsome in its unity, has broken up into bitterly antagonistic blocs. Moscow and Peking barely keep the peace. Fear in Czechoslovakia, Yugoslavia and Roumania is not of the capitalist enemy but the great Communist friend. The more intimate calculations of the Soviet High Command on what might be expected of the Czech (or for that matter the Roumania or Polish or Hungarian) army in the event of war in Western Europe must not be without charm. Perhaps they explain the odd military passion of the Soviets for the Egyptians. The Soviets have had no more success than

has capitalism in penetrating and organizing the backward countries of the world. Communist and capitalist jungles are indistinguishable. Men of independent mind recognize that after twenty years of aggressive military competition with the Soviets our security is not greater and almost certainly less than when the competition began. And although in the fifties it was fashionable to assert otherwise ("a dictator does not hesitate to sacrifice his people by the millions") we now know that the Soviets are as aware of the totally catastrophic character of nuclear war as we are—and more so than our more articulate generals.

These changes plus the adverse reaction to Vietnam have cost the military power its monopoly of the scientific community. This, in turn, has damaged its claim to a monopoly of knowledge including that which depends on security classification. Informed critics are amply available outside the military-industrial complex. Not long ago Under Secretary of Defense Packard sought, in an earlier tradition, to discredit the opposition of Dr. Herbert A. York, former Director of Defense Research and Engineering, to the ABM on the grounds that the latter did not have access to secret information. The effort backfired, the only person whose credibility was damaged was Secretary Packard. In consequence, men are now available to distinguish between what weapons are relevant to an equilibrium with the Soviets, what destroys this balance by encouraging a new competitive round, and what serves primarily the prestige of the Services and the prestige and profits of the contractors. The attack on the Sentinel-Safeguard ABM system could never have been mounted in the fifties.

Additionally civilian priority has become one of the most evocative words in the language. Everywhere—for urban housing and services, sanitation, schools, police, urban transportation, clean air, potable water—the needs are huge and pressing. Because these needs are not being met the number of people who live in fear of an urban explosion may well be greater than those who are alarmed by the prospect of nuclear devastation. For many years I have lived in summers on an old farm in Southern Vermont. In the years following Hiroshima we had the advance refugees from the atomic bomb. Now we have those who are escaping the ultimate urban riot. The second migration is much bigger than the first and has had a far more inflationary effect on local real estate values.

Certainly the day when military spending was a slightly embarrassing alternative to unemployment is gone and, one imagines, forever.

With all of these changes has come a radical change in the political climate. Except in the darker reaches of Orange County and suburban Dallas (where defense expenditures also have their influence) fear of communism has receded. We have lived with the Communists on the same planet now for a half century. An increasing number are disposed to believe we *can* continue doing so. Communism seems somewhat less triumphant than twenty years ago. Perhaps the Soviet Union is yet another industrial state in which organization—bureaucracy—is in conflict with the people it must educate in such numbers for its tasks. Mr. Nixon in his many years as a political aspirant was not notably adverse to making capital out of the Communist menace. But neither, if a little belatedly, was he a man to resist a trend. Many must have noticed that his warnings overt or implied of the Communist menace in his Inaugural Address were rather less fiery than those of John F. Kennedy eight years earlier.

The anxiety which led to the great concentration of military and industrial power in the fifties having dissipated, the continued existence of that power has naturally become a political issue. There are many who think that Mr. Nixon sacrificed some, perhaps much, of his lead when, in the closing days of the Presidential campaign, he promised to revitalize the arms race with an effort to establish clear superiority over the Soviets. There can be little question that General Curtis LeMay, far from attracting voters to Governor George Wallace in 1968, was a disaster. At a somewhat lower level than Eisenhower, MacArthur, Patton, and Bradley, LeMay was one of the *bona fide* heroes in the American pantheon. But his close association with the military power, especially his long efforts to make nuclear war palatable, if not altogether appetizing, to the American public, was unnerving. As noted a stand-up-to-it heroism is combined with a deep sensitivity when the nuclear nerve is touched.

If the potential followers of Governor Wallace were capable of alarm over the military power, then the potential opposition is not confined to the bearded

and barefoot left. (This, as in the case of Vietnam, will be the first assumption of the bureaucracy.) Nor is it. Concern reaches deeply into the suburban middle class and business community. During the summer of 1968, if I may recur once more to personal experience, I was concerned with raising money for Eugene McCarthy. We raised a great deal; the efforts with which I was at least marginally associated produced some \$2.5 million. Overwhelmingly we got that money from businessmen. Opposition to the Vietnam War was, of course, the prime reason for this support. But concern over the military power was a close (and closely affiliated) second. When one is asking for money one very soon learns what evokes response.

Social concern, however inappropriate for a businessman, was most important but there were also very good business reasons for being aroused. In 1968, the hundred largest defense contractors had more than two-thirds (67.4 percent) of all the defense business and the smallest fifty of these had no more in the aggregate than General Dynamics and Lockheed. A dozen firms specializing in military business (e.g., McDonnell Douglas, General Dynamics, Lockheed, United Aircraft) together with General Electric and A.T. & T. had a third of all the business. For the vast majority of businessmen the only association with the defense business is through the taxes they pay. Not even a subcontract comes their way. And they have another cost. They must operate in communities that are starved for revenue, where in consequence, their business is exposed to disorder and violence and where materials and manpower are preempted by the defense contractors. They must also put up with inflation, high interest rates and regulation on overseas investment occasioned by defense spending. The willingness of American businessmen to suffer on behalf of the big defense contractors has been a remarkable manifestation of charity and self-denial.⁹

Two other changes have altered the position of the military power. In the fifties the military establishment of the United States was still identified in the public mind with the great captains of World War II—with Eisenhower, Marshall, MacArthur, Bradley, King, Nimitz, Arnold. And many members of a slightly junior generation—Maxwell Taylor, James Gavin, Matthew Ridgeway, Curtis LeMay—were in positions of power. Some of these soldiers might have done less well had they been forced to fight an elusive and highly motivated enemy in the jungle of Vietnam encumbered by the leisurely warriors of the ARVN. (At one time or another, Eisenhower, MacArthur, Gavin all made it explicitly clear that they would never have got involved in such a mistake.) The present military generation is intimately associated with the Vietnam misfortune. And its credibility has been deeply damaged by its fatal association with the bureaucratic truths of that war—with the long succession of defeats that became victories, the victories that became defeats, and brilliant actions that did not signify at all. In the fifties it required courage for a civilian to challenge Eisenhower on military matters. Anyone is allowed to doubt the omniscience of General Westmoreland.

Finally, all bureaucracy has a mortal weakness; it cannot respond effectively to attack. The same inertial guidance which propels it into trouble—which sends it mindlessly into the Bay of Pigs or Vietnam even when disaster is evident—renders it helpless in self-defense. It can, in fact, only mimic itself. Organization could not come up with any effective response to its critics on Vietnam. The old slogans—we must resist worldwide Communist aggression, we must not reward aggression, we must stand by our brave allies—were employed not only after repetition had robbed them of all meaning but after they had been made ludicrous by events. In the end Secretary of State Rusk was reduced to mnemonic speeches about our commitments. Organized thought was incapable of anything better.

⁹ Not completely. One of the most effective organizations opposing the Vietnam War was *Business Executives Move for Vietnam Peace* led jointly by Henry Niles, a highly conscientious Baltimore insurance man and Harold Willens, a remarkably energetic—and idealistic—Los Angeles real estate developer. Even the most self-confident defenders of this conflict were shaken by the appearance of a large number of notable, solid and exceptionally articulate businessmen in opposition. So were journalists and the public generally. The leaders in this effort are now converting themselves into an opposition to the military power and its budget. It is another sign of the time.

So with the military power—only more so. One of the perquisites of great power is that its use need not be defended. In consequence, kings, czars, dictators, capitalists, even union leaders—when their day of accounting comes have rarely been able to speak for themselves. As the military power comes under scrutiny, it will be reduced to asserting that its critics are indifferent to Soviet or Chinese intentions, unacquainted with the most recent intelligence, militarily inexperienced, naive, afraid to look nuclear destruction in the eye. Or it will be said that they are witting or unwitting tools of the Communist conspiracy. Following Secretary Laird's effort on behalf of the ABM (when he deployed from new intelligence an exceptionally alarming generation of Soviet missiles), a special appeal will be made to fear. A bureaucracy under attack is a fortress with thick walls but fixed guns.

7

It is a cliché, much beloved of those who supply the diplomatic gloss for the military power, that not much can be done to limit the latter—or its budget—so long as "American responsibilities" in the world remain unchanged. And for others it is a persuasive point that to reduce the military budget will require a change in foreign policy.

But these changes have already occurred. In the years following World War II there was a spacious view of the American task in the world. We guarded the borders of the non-communist world. We prevented subversion there and put down wars of liberation elsewhere. In pursuit of these aims we maintained alliances, deployed forces, provided military aid on every continent. This was the competition of the superpowers. We had no choice but to meet the challenge of that competition.

We have already found that the world so depicted does not exist. Superpowers there are but superpowers cannot much affect the course of life within the countries they presume to see as on their side. In part, that was the lesson of Vietnam; annual expenditures of \$30 billion, a deployment of more than half a million men, could not much affect the course of development in one small country. In lands as diverse as India, Indonesia, Peru and the Congo we have found that our ability to affect the development is even less. We have also found, as in the nearby case of Cuba, that a country can go Communist without any overpowering damage.

What we have not done is accommodate our military policy to this reality. Military aid, bases, conventional force levels, weapons requirements still assume superpower omnipotence. (And the military power still projects this vision of our task.) Our foreign policy has, in fact, changed. It is the Pentagon that hasn't.

8

To argue that the military-industrial complex is now vulnerable is not to suggest that it is on its last legs. It spends a vast amount of public money, which insures the support of many (though by no means all) of those who receive it. Many Senators and Congressmen are slow to criticize expenditures in their districts even though for most of their supporters the cost vastly exceeds the gain. (Defense contracts are even more concentrated geographically than by firm. In 1967 three favored states out of fifty—California and New York and Texas—received one-third. Ten states accounted for a full two-thirds. In all but a handful of cases the Congressman or Senator who votes for military spending is voting for the enrichment of people he does not represent at the expense of those who elect him.) And there is the matter of habit and momentum. The military power has been above challenge for so long that to attack still seems politically quixotic. One recalls, however, that it once seemed quixotic to be against the Vietnam War.

Nonetheless control is possible. I come to my final task. It is to offer a political catalogue of what is required. It is as follows.

(1) The goal, all must remember, is to get the military power under firm political control. This means electing a President on this issue next time. This, above all, must be the issue in the next election.

However, for the next three and a half years, not much can be done about the Presidency. Also if Mr. Nixon does not resist the military power he will follow

President Johnson into oblivion—conceivably taking quite a few others with him. This one must suppose he will see. So while all possible moral pressure must be kept on the President, the immediate target is the Congress.

(2) Congress will not be impressed by learned declamation on the danger of the military power. There must be organization. The last election showed the power of that part of the community—the colleges, universities, concerned middle class, businessmen—which was alert to the Vietnam War. Now in every possible congressional district there must be an organization alert to the military power. Anciently legislators up for election have pledged themselves to an “adequate national defense,” a euphemism for according the Pentagon a blank check. In the next election everyone must be pressed for a promise to resist military programs and press relentlessly for negotiations along lines indicated below. Any Senator or Congressman who does not believe that the Congress should exercise strict supervision over the Pentagon, that the latter should be strictly answerable to Congress both for its actions and its expenditures, confess his indifference to the proper role of the legislature. He will be better at home.

This effort must not be confined to the North, the Middle West or West. In the last five years there has been a rapid liberalization of the major college and university centers of the South. Nowhere did McCarthy or Kennedy draw larger and more enthusiastic crowds than in the big southern universities. Mendel Rivers, Richard Russell, Strom Thurmond, John Tower and the other sycophants of the military from the South must be made sharply aware of this new constituency—and if possible be retired by it.

(3) The Armed Services Committees of the two houses must obviously be the object of a special effort. They are now, with the exception of a few members, a rubber stamp for the military power. Some liberals have been reluctant to serve on these flefs. No effort, including an attack on the seniority system itself, should be spared to oust the present functionaries and to replace them with acute and independent-minded members. Here too it is important to get grass-roots expression from the South.

(4) The goal is not to make the military power more efficient or more righteously honest. It is to get it under control. These are very different objectives. The first seeks out excessive profits, high costs, poor technical performance, favoritism, delay or the other abuses of power. The second is concerned with the power itself. The first is diversionary for it persuades people that something is being done while leaving power and budgets intact.

(5) This is not an anti-military crusade. Generals and admirals and soldiers, sailors and airmen are not the object of attack. The purpose is to return the military establishment to its traditional position in the American political system. It was never intended to be an unlimited partner in the arms industry. Nor was it meant to be a controlling voice in foreign policy. Any general or admiral who rose to fame before World War II would be surprised and horrified to find that his successors in the profession of arms are now commercial accessories of General Dynamics.

(6) Whatever its moral case there is no political future in unilateral disarmament. And the case must not be compromised by wishful assumptions about the Soviets which the Soviets can then destroy. It can safely be assumed that nuclear annihilation is as unpopular with the average Russian as it is with the ordinary American, and that their leaders are not retarded in this respect. But it is wise to assume that within their industrial system, as within ours, there is a military-industrial bureaucracy committed to its own perpetuation and growth. This governs the more precise objectives of control.

(7) Four broad types of major weapons systems can be recognized. There are first those that are related directly to the existing balance of power or the balance of terror vis-a-vis the Soviets. The ICBM's and the Polaris submarines are obviously of this sort; in the absence of a decision to disarm unilaterally, restriction or reduction in these weapons requires agreement with the Soviets. There are, secondly, those that may be added within this balance without tipping it drastically one way or the other. They allow each country to destroy the other more completely or redundantly. Beyond a certain number, more ICBM's are of this sort. Thirdly there are those that, in one way or another, tip the balance or seem to do so. They promise, or can be thought to promise, destruction of the

second country while allowing the first to escape or largely escape. Inevitably, in the absence of a prospect for agreement, they must provoke response. An ABM, which seems to provide defense while allowing of continued offense, is of this sort. So are missiles of such number, weight and precision as to be able to destroy the second country's weapons without possibility of retaliation.

Finally there are weapons systems and other military construction and gadgetry which add primarily to the prestige of the Armed Services, or which advance the competitive position of an individual branch.

The last three classes of weapons do not add to such security as is provided under the balance of terror.¹⁰ Given the response they provoke, they leave it either unchanged or more dangerous. But all contribute to the growth, employment and profits of the contractors. All are sought by the Armed Forces. The Army's Sentinel (now Safeguard) Antiballistic Missile system is urged even though it is irrelevant and possibly dangerous as a defense. As Mr. Russell Baker has said, it is based at least partly on the assumption that the Chinese would "live down to our underestimates of their abilities and produce a missile so inferior that even a Sentinel can shoot it down." But it holds a position for the Army in this highly technological warfare. The Air Force wants a new generation of manned bombers, their vulnerability notwithstanding, because an Air Force without such bombers—with the key fighting men sitting silently in underground command posts—is much less interesting. And Boeing, General Dynamics, Lockheed, North American Rockwell, Grumman and McDonnell Douglas are naturally glad that this is so. The Navy wants nuclear carriers and their complement of aircraft, their vulnerability notwithstanding, for the same reason.

A prime objective of control is to eliminate from the military budget those things which contribute to the arms race or are irrelevant to the present balance of terror. This includes the second, third and fourth classes of weapons mentioned above. The ABM and the MIRV (the Multiple Independently-targeted Reentry Vehicle) both of which will spark a new competitive round of a peculiarly uncontrollable sort, as well as manned bombers and nuclear carriers are all of this sort. Perhaps as a simple working goal some \$5 billions of such items should be eliminated in each of the next three years for a total reduction of \$15 billion.¹¹

(8) The second and more important objective of control is to win agreement with the Soviets on arms control and reduction. This means, in contrast with present military doctrine, that we accept that the Soviets will bargain in good faith. And we accept also that an imperfect agreement—for none can be watertight—is safer than continuing competition. It means, as a practical matter, that the military role in negotiations must be sharply circumscribed. Military men—prompted by their industrial allies—will always object to any agreement that is not absolute, self-enforcing and watertight. Under such circumstances, arms control negotiations become, as they have been in recent times, a charade. Instead

¹⁰ Charles L. Schultze, the former Director of the Budget under President Johnson and his associate William M. Capron, neither of them radicals in this matter, have recently observed that "Once we have achieved a minimum deterrent, plus an ample margin of safety and a healthy R & D program to be prepared for the future, it is difficult to conceive of any value the United States could gain from additional 'superiority' in nuclear force. . . . we cannot attain a first strike capability. And if we can retaliate with devastating force against a Soviet attack, what do we gain by having twice or three times that force? It adds nothing to our diplomatic strength in situations short of nuclear war. It does not add to deterrence—devastation twice over is no greater deterrent than devastation once. We can, to some extent, limit damage to the United States by having the capability, in a retaliatory strike, to target Soviet missiles and bombers withheld in a first strike. But the 'ample margin of safety' described above gives us such a capability already. Excessive superiority, in other words, gains us little value, costs substantially in budget terms, and almost inevitably forces a Soviet response which eliminates the superiority temporarily gained." Unpublished memorandum. A valuable recent document on this whole subject is George W. Rathjens' *The Future of the Strategic Arms Race* published earlier this year by the Carnegie Endowment for International Peace.

¹¹ I would urge leaving the space race out of this effort. The gadgetry involved is not uniquely lethal; on the contrary, it channels competition with the Soviets, if such there must be, into comparatively benign channels. It has so far been comparatively safe for the participants—strikingly so as compared with early efforts at manned flight in the atmosphere and across the oceans. One observes, between ourselves and the Soviets, a gentlemanly obligation to admire each other's accomplishments which, on the whole, compares favorably with similar manifestations at the Olympic games or invoking music and the ballet.

of halting the arms race, they may even have the effect of justifying it. "After all, we are trying for agreement with the bastards." The Congress and people must make the necessity for this control relentlessly clear to the Executive.

(9) Independent scientific judgment must be mobilized in this effort—as guidance to the political effort, for advice to Congress, and, of course, within the Executive itself. The arms race, in its present form, is a scientific and mathematical rather than a military contest. Though the military can no longer barricade themselves behind claims of military expertise or needed secrecy, the opposing view must be reliably available.

But decisions on military needs are still made in a self-serving compact between those who buy weapons and those who sell. So the time has come to constitute a special body of highly qualified scientists and citizens to be called, perhaps, the Military Audit Commission. Its function would be to advise the Congress and inform the public on military programs and negotiations. It should be independently, i.e. privately, financed. It would be the authoritative voice on weapons systems that add to international tension or competition or serve principally the competitive position and prestige of the Services or the profits of their suppliers. It would have the special function of serving as a watchdog on negotiations to insure that the military power is excluded.

(10) Control of the military power must be an ecumenical effort. Obviously no one who regards himself as a liberal can any longer be a communicant of the military power. But the issue is one of equal concern to conservatives—to the conservative who traditionally suspects any major concentration of public power. It is also an issue for every businessman whose taxes are putting a very few of his colleagues on the gravy train. But most of all it is an issue for every citizen who finds the policy images of this bureaucracy—the Manned Orbiting Laboratory preserving the American position when all or most are dead below—more than a trifle depressing.

9

A few will find the foregoing an unduly optimistic effort. More, I suspect, will find it excessively moderate, even commonplace. It makes no overtures to the withdrawal of scientific and other scholarly talent from the military. It does not encourage a boycott on recruiting by the military contractors. It does not urge the curtailment of university participation in military research. These, there should be no mistake about it, will be necessary if the military power is not brought under control. Nor can there be any very righteous lectures about such action. The military power has reversed constitutional process in the United States—removed power from the public and Congress to the Pentagon. It is in a poor position to urge orderly political process. And the consequences of such a development could be very great—they could amount to an uncontrollable thrust to unilateral disarmament. But my instinct is for action within the political framework. This is not a formula for busy ineffectuality. None can deny the role of those who marched or picketed on Vietnam. But, in the end, it was political action that arrested the escalation and broke the commitment of the bureaucracy to this mistake. Control of the military power is a less easily defined and hence more difficult task. (To keep the military and its allies and spokesmen from queering international negotiations will be especially difficult.) But if sharply focused knowledge can be brought to bear on both weapons procurement and negotiation; if citizen attitudes can be kept politically effective by the conviction that this is the political issue of our time; if there is effective organization; if in consequence a couple of hundred or even a hundred members of Congress can be kept in a vigilant, critical and aroused mood; and if for the President this becomes visibly the difference between success and failure, survival and eventual defeat, then the military-industrial complex will be under control. It can be made to happen.

THE IDEAS BY WHICH WE ARE RULED

Within the decade the three dominant figures in the Air Force have given considered voice to their views on foreign policy and the proper American response. They deserve to be better read.

From General Thomas S. Power, USAF (Ret.)

"The Soviet leadership is irrevocably committed to the achievement of the ultimate Communist objective, which is annihilation of the capitalist system and establishment of Communist dictatorship over all nations of the world."¹

"Soviet rulers are not like the leaders of other nations with whom one can reason and conclude agreements to be approved and honored by the people whom they represent."²

"But the military aspects of the Communist threat represent just one phase of the most insidious and gigantic plot in history. There are the economic, technological, political, ideological and other phases, all designed for one objective only, and that is the accomplishment of the ultimate Communist goal of total world domination."³

"With 700 million people, one-quarter of the world's population, it [Communist China] is under the absolute control of fanatic and ruthless dictators who are determined to conquer all of southeast Asia . . . once they have succeeded in building up a sufficient stockpile of nuclear weapons and delivery vehicles they will doubtless embark on a major and sustained campaign of aggression against their neighbors."⁴

From General Nathan F. Twining, USAF (Ret.)

"I can summarize my views on national security planning into two sentences. The leaders of an organized conspiracy have sworn to destroy America and the Free World by one means or another, and there is no real evidence available at this time to indicate that their objective has been changed. Therefore we had better be prepared to fight to maintain our liberty."⁵

"Red China under its present leadership seems to me at this writing to be practically a hopeless case. Naked force seems to be the only logic which the leadership of that unfortunate nation can comprehend."⁶

"From America's conduct of the Korean War, the Sino-Soviet Bloc had learned three important things: one, the U.S. was not going to use the atomic bomb, even tactically; two, it had no stomach for tangling with the Chinese Communists; and three, this nation never even considered carrying the war back to the U.S.S.R.—the real instigator of the aggression. The homeland of the Sino-Soviet Bloc [sic] was therefore secure."⁷

". . . another course of action which could have been considered. I call this course 'containment plus,' because it includes all the elements of containment and adds *initiative*. This course of action would not necessarily have required a calculated and deliberate first nuclear blow against Communist powers. . . . The United States *could* have said: The United States does not intend to initiate military conflict, but it will have to begin it if the U.S.S.R. and Communist China persist in their attempts to enslave more of the free world. The United States will be ready to fight. The Communist apparatus is trying to destroy this nation with every trick at its command, therefore, the United States will also use every economic, technical, political, psychological, and subversive method which can be contrived. This nation must refuse to be bound to the dogmatic principles of statesmanship while its enemy lives by the law of the jungle. The stakes to humanity [sic] are too high."⁸

From General Curtis E. LeMay, USAF (Ret.)

"To begin with it is necessary to understand that Vietnam is part of a much larger and much longer war—a war between communism and the Free World. . . . Although the war has many facets, it has but one objective: communist control of the entire world."⁹

¹ *Design for Survival*. New York: Coward-McCann, Inc., 1965, p. 43.

² *Ibid.*, p. 60.

³ *Ibid.*, p. 52.

⁴ *Ibid.*, p. 99.

⁵ *Neither Liberty Nor Safety*. New York: Holt, Rinehart & Winston, 1966. P. 275-76.

⁶ *Ibid.*, p. 273.

⁷ *Ibid.*, p. 56.

⁸ *Ibid.*, p. 60.

⁹ *America is in Danger*. General Curtis E. LeMay with Maj. Gen. Dale O. Smith. New York: Funk & Wagnalls, 1968. P. 242.

"I should think that with the evidence of Korea and Vietnam we should begin to see the errors in the limited war doctrine we now practice."¹⁰

". . . We must see to it that Communist aggression results in Communist disaster. This we cannot obtain at the negotiating table."¹¹

". . . America languors with an illness of euphoria brought on by our leaders who have proclaimed an international detente in the struggle against communism. This detente is unwarranted."¹²

". . . I sincerely believe any arms race with the Soviet Union would act to our benefit. I believe that we can out-invent, out-research, out-develop, out-engineer and out-produce the U.S.S.R. in any area from sling shots to space weapons, and in so doing become more and more prosperous while the Soviets become progressively poorer. This is the faith I have in the free enterprise economy. . . ."¹³

Chairman PROXMIRE. Thank you, Professor Galbraith, for a delightful as well as perceptive and persuasive statement.

In your second recommendation, you say that part of the military budget that serves the balance of terror can be reduced only with negotiations with the Soviet Union. Then you say the rest—and you say that is a relatively small part of the military budget—the rest serves the goals of the military power and the interests of the suppliers.

Does that indicate that you feel that we should be primarily concerned with deterrents of nuclear war and concentrate our military efforts very largely in this area, reduce the rest of our military force rather sharply?

Mr. GALBRAITH. Yes; this would be a fair conclusion from this.

It is quite certain that a wide range of the need of the things for which the military keep pressing—a new generation of manned bombers, new generations of nuclear aircraft carriers—are not in any significant way related to the balance with the Soviet Union. As Dr. Schultze has stated, this is also true of missiles systems beyond a certain point and, of course, it has been very much a part of the argument against the ABM. So that the inference that you draw from that is perfectly right, that we have a very large part of military expenditure which is functional related only to the needs of the desires of the military and its suppliers, not to national interest.

I would hope, Mr. Chairman, we could also reduce that part that is related to military purposes. But I am quite persuaded that that requires agreement with the Soviets. As I say, I do not favor unilateral disarmament.

Chairman PROXMIRE. You served for years as our Ambassador to India; you are very familiar with that part of the world. Do you feel on the basis of that experience and your subsequent observation that the notion of being able to fight limited war, maybe one or two limited wars, in addition to being able to defend ourselves, or rather to prevent by retaliation, by capacity to retaliate a nuclear strike, that capacity to fight limited wars is something we should not put emphasis on, not spend money on?

Mr. GALBRAITH. Broadly speaking, yes. We are not, of course, going to dispense with ground forces. We will continue to have large and

¹⁰ *Ibid.*, p. 165.

¹¹ *Ibid.*, p. 253.

¹² *Ibid.*, p. 332.

¹³ *Ibid.*, p. 94.

relatively expensive ground forces. This is, to use an unfashionable word, only realism. But the existence of a force which enables us to fight a limited war in Vietnam was, in my judgment, no asset. And we have learned as the result of the expenditure of something close to \$100 billion there and the deployment of a half a million that our capacity greatly to influence the course of development was not great.

Chairman PROXMIRE. Would you distinguish your position from those who say we should rely entirely on massive retaliation?

Mr. GALBRAITH. No. In Vietnam or, indeed, for that matter, India, no matter how much we may disapprove of the course of political development there is very little we can do about it and very little that we should do. We will in Vietnam, over the long run, have a Government strongly oriented to the NLF and the Vietcong. There is no doubt about that. It is the vital political force in that country compared with the weak and incompetent and dishonest governments we have been propping up. And this being the case, we are, we have learned, nearly helpless. We cannot conquer that political trend. And the deployment of ground forces and the investment in ground forces does not allow us to do so.

Chairman PROXMIRE. Some people argue that we not only should be concerned about the challenge to our institutions from unrest here at home, but that we would be actually a stronger Nation militarily if we would put more emphasis on manpower training and retraining, on education, rather than on military.

In other words, if we tend to reverse our priorities, whereas now as a Nation we spend about \$80 billion on defense, and as I understand it, the figures are debatable because it depends on what you include, but at all levels, local, State, and national, we spend, spend something like \$44 billion on education, that we should increase the educational expenditures and decrease the military expenditures, we not only would be a better Nation in many respects but actually a stronger military Nation because of the importance of education and training and skill and ability to our military potential.

Mr. GALBRAITH. I would think that was a wholly plausible argument, Mr. Chairman. I think I would be more certain of it if put in negative terms. By starving our public services, failing to live up to the goals that we have proclaimed and that we put before the younger members of the community, failing to make the kind of attack on housing, poverty, educational deficiency, environment—the things that we have talked about but have not accomplished—we have contributed substantially to the alienation of the younger generation from our Government.

I suspect that Secretary Laird has not this year had a very large number of offers of honorary degrees through the country. He will be able to get along without them, I am sure. And, I notice that the President, as he goes out for the annual commencement tour, picked a rather reliable institution in South Dakota and the Air Force Academy. This seems to me to be a rather pitiful situation. I am sure that this alienation would be much reduced if we were coming very much closer than we are to our own pretensions.

Chairman PROXMIRE. Let me pursue this argument a little further. It is clear to me that the defense budget is contributing seriously to inflation. A part of the reason for this is that military spending produces nothing that satisfies the demand people express in markets. Another reason is that the military expenditures do not contribute to improvements in labor productivity.

How would you evaluate the effect on the Nation's inflation of reallocation of \$5 or \$10 billion of defense budget to programs of labor training or education or a tax cut?

Mr. GALBRAITH. Oh, there is no question that if we were not under the pressure of the heavy military expenditures we would be under less inflationary pressure, Mr. Chairman. I cannot possibly fault your economics on that.

But I do think that of all of the arguments for cutting back on the military budget, what I began by describing as the bloodless economics argument is probably the least important.

Chairman PROXMIRE. Why do you consider the current level of military expenditures to be harmful to the American economy, or do you? You say these arguments are least important.

Mr. GALBRAITH. I would say the argument is over the priorities, rather than over whether we can afford this size of Federal budget or not. I think we can afford this size of Federal budget, frankly. And if this size of Federal budget were used in relation to a more satisfactory set of priorities, more of it were allocated to pressing civilian requirements, more to the things you mentioned at the outset—the housing, the problems of the large cities—I would not be alarmed about the size of the public spending as such. We could stand that.

Chairman PROXMIRE. But, you see, it seems to me there is a different quality of spending. When you spend it on military areas, it is sterile in terms of meeting the demands. It does not meet economic demands. Whereas, when you spend it on housing, or education, you do meet the economic demand. You increase the supply of housing and of skilled labor and therefore it would seem to me you not only have a benefit in reducing military spending but a clear quality benefit in shifting your resources.

Mr. GALBRAITH. I would agree with that, yes.

Chairman PROXMIRE. I recall that prior to 1965 when the defense budget was at \$50 billion, there was considerable criticism of defense spending; then as now there was great fear of the arms race. What, in your judgment, are the criteria under which we can rely on deciding whether or not military spending is too high and what the proper level would be?

Mr. GALBRAITH. I do not think, Mr. Chairman, and I am sure you would agree with me, there is any simple formula. My instinct would be to say there is a certain sector of military spending which we must set aside as related to what the Soviets are doing, which we can only get rid of by the process of mutual agreement. In addition there is a scale conventional force which we are going to continue to sustain. The problems, it seems to me, must be approached negatively. We

must ask ourselves whether beyond that, these particular expenditures are serving national interest or what I have earlier described as the bureaucratic objectives of the services, or the suppliers.

It is quite evident, and I think the point would be widely agreed, that a very large part of these expenditures have no such functional purpose.

My own view is that in the last 10 years, Mr. Chairman, we have without quite realizing, greatly altered the scope of our foreign policy. Ten years ago there was great talk about the Communist truce line; the notion was accepted that if communism developed in any part of the world, we would have to react. In these last 10 years, we have discovered, and I think the Soviets have, too, that the difference between a Communist jungle and non-Communist jungle is not apparent to anyone walking through it. We have also learned the practical limits to what can be done by a superpower.

As I said before, we have spent \$100 billion in Vietnam and have found that our ability to affect the course of life in that unhappy country is very limited. This, it seems to me, gives us a very different view of the American obligation abroad, and the American possibility abroad. The result has been a substantially reduced obligation on our military services.

So that we have changed our foreign policy. I am not a natural defender of the Nixon administration. But I hazard the guess that if something that looked like another Vietnam were to break out in some other part of the world, it would be some time before the news of the need for American troops got to the White House.

Chairman PROXMIRE. My time is up. I might just say that you imply we changed our foreign policy but we have not changed our military spending to accommodate the change in policy.

Mr. GALBRAITH. That is so.

Chairman PROXMIRE. Mr. Conable?

Representative CONABLE. Mr. Galbraith, I am interested and a little puzzled by your frequent references to Secretary Laird, yet reference to his predecessors is entirely absent in your comments.

Mr. GALBRAITH. I hasten to say my remarks were entirely nonpartisan, sir.

Representative CONABLE. I trust so. Do you feel that he has performed a public service in making public the very substantial cost overruns on the Defense Department from contracts let 2 or 3 or 4 years ago? Do you feel he has further eroded public confidence in the efficiency of the Defense Department?

Mr. GALBRAITH. I would strongly applaud his most recent reaction on the *Lockheed* case. It was, perhaps, a little bit inspired by the chairman of this committee. That thought, anyway, might cross some people's minds. But his recent statements on this issue I would certainly applaud, sir.

Representative CONABLE. I am interested, also, in your feeling about the Defense Department in general. Do you think that we took a step backward when we tried to unify the services under one Department of Defense? The purpose of that, of course, was to impose a civilian

head between the services and the rest of the Government. Was this a step backward, or was it a step forward?

Mr. GALBRAITH. This is an interesting point, Mr. Conable. If I were to go back and reconsider that, I am not by no means certain where I would come out. A measure of competition in the bureaucracy is not a bad thing.

Representative CONABLE. There is still some competition within the bureaucracy of the Defense Department, is there not?

Mr. GALBRAITH. That is, of course, true.

I was always struck by this during World War II—when I was associated with intelligence activities. Then we had virtually free competition between the OSS and ONI, G-2, and perhaps we were a little wiser as a result of having five or six competing intelligence estimates rather than just one. And I am not absolutely certain that the maximum of streamlined unity in the Defense Department, beautiful as it looks on organizational charts, was something that served our goals. But the question is academic; we are obviously not going to undo it now.

Representative CONABLE. That step did create the colossus we are now dismayed about.

Mr. GALBRAITH. That is a good point.

Representative CONABLE. Let me ask you this, sir. I trust that your views about conventional arms and substantial conventional forces do not carry over to your attitude toward the appropriate defense posture for other countries than the United States? For instance, you are not advocating scrapping any effort toward nuclear nonproliferation, are you, in suggesting—

Mr. GALBRAITH. Absolutely not.

Representative CONABLE. And you feel that it is appropriate for other countries to maintain traditional defense establishments—

Mr. GALBRAITH. Surely—yes.

Representative CONABLE. As a part of the multipolarity of the world?

Mr. GALBRAITH. I am a strong supporter of the nonproliferation treaty.

Representative CONABLE. Are there any lessons we can learn, sir, from the relation of the Red Army with the Russian Government?

Mr. GALBRAITH. Well, I will have to plead innocence as a Soviet authority. I am not a Kremlinologist. My instinct has been always to believe that organization is much the same wherever one finds it. It would seem safe to suppose that there is something of the same military-industrial power in the Soviet Union with the same view of its own goals as we encounter in other countries, including our own.

This being the case, it seems to me that the people who approach this problem purely in antimilitary terms are not being realistic, are not serving the goals with which we are here concerned.

Representative CONABLE. Is the specter of militarism such that you have any related views toward the efforts to develop an all-voluntary force in this country? Do you see any cause for concern in this trend arising out of the unpopularity of the draft as an institution?

Mr. GALBRAITH. I have been a member for a long while of the Committee on Behavior of the Voluntary Army. One of my few points of agreement with Professor Friedman of the University of Chicago—he was Senator Goldwater's economic adviser—is on this. As far as the general effect of the military power on civilian authority or civil liberties—the draftee, of course, apart—I am not disturbed.

It seems to me that our genius is to be critical of our tradition, but we should be always discriminating in our criticism.

The American Armed Forces are not evangelistic as regards citizen power. They are respectful of it. And it is hard for me to believe that anybody's liberties—outside the Armed Services—in these last hundred years have been seriously circumscribed by any phenomenon that might be called American militarism.

I have never doubted the capacity of the President of the civil power if it is so motivated to control the military. I do not blame the Vietnam war on the generals; the Vietnam war was primarily a mistake of the President, the civilian bureaucracy, abetted by the Congress and many other people.

So this is not an issue that greatly disturbs me about the voluntary Army. Moreover, we now have a professional officer's corps. If there is a danger—which I do not believe—of the subversion of civilian process, it is not the private soldier who is the danger. It is the officer.

On the other hand, there are some features, I must confess, about the volunteer Army that disturb me. There are very few issues that are clearcut. I am uneasy about the extent of who would be drawn from those who are not under compulsion of the draft under the compulsion of economic circumstances—a point my Senator, Senator Kennedy, has made. Also, I must say that as a long-time resident of the university community, I have a feeling that if wars could be fought by volunteers drawn from among those with lower income, we would not have nearly the degree of moral concern that we now have over an issue such as Vietnam.

The draft has served to bring the issue of Vietnam into the university community in a way that would not have occurred had that war been fought by volunteers. My students at Harvard are idealistic. I do not doubt but that their idealism is reinforced by the threat to themselves.

Representative CONABLE. Thank you for a very complete and honest answer on that, sir.

One last question. Do you see any hope of our getting rid of what you call the sycophants and housecarls of the military in Congress short of congressional reorganization?

Mr. GALBRAITH. I am committed still to the electoral process. I was down in South Carolina the other day and suggested it down there and got quite a good response.

Representative CONABLE. Thank you.

Chairman PROXMIRE. Before I yield to Senator Symington, Dr. Schultze is the next witness and I would suggest that if we could, we confine our questioning to one round, if that satisfies.

Senator Symington?

Senator SYMINGTON. Thank you, Mr. Chairman.

I am always stimulated by Dr. Galbraith.

In the late 1920's and early 1930's I was running a couple of small businesses and thought I was a smart young man; then got hit by a tornado. I never really understood what hit me until many years later in New Delhi, Ambassador Galbraith gave me a book called the "The Great Crash." I hope 18 years from now he does not give me another he wrote after I am hit by another tornado, one far more serious.

In his testimony, Mr. Chairman, the witness made an interesting and provocative statement when he said, "This means that the Congress must equip itself with the very best of independent scientific judgment, and the members so mobilized must not be denied access to scientific and intelligent information.

"I believe that on military matters, there should be a panel of scientists, a Military Audit Commission, responsible only to the Congress, to be a sort of continuing and informed advice on military needs and equally on military non-needs."

I think that is one of the most logical and persuasive suggestions I have read. For example, before the Armed Services Committee, Senator Stennis agreed to have four opponents of the so-called ABM System, along with four proponents. He was good enough to suggest that I join Senator Cooper and Senator Hart in picking the four opponents. We picked four men we felt could best present why the ABM should not be deployed. And the four proponents of the system picked by those on the committee who felt it should be deployed, spent nearly all of their time explaining why the Soviets were a menace and communism was wrong.

I have an article from the paper this morning which illustrates my point. It was in this morning's paper and says "Pentagon chart stirs a dispute."

The Pentagon and Senator Symington were at odds yesterday on just what a classified Defense Department chart indicated. But they agreed on one thing; whatever was on the chart was too secret to talk about in public.

That is exactly what I did not agree to.

I felt that declassification of the chart, which was part of Defense Secretary Packard's presentation to the Armed Services Committee, would clarify perhaps once and for all that the deployment of the Safeguard system would not materially affect or prevent the effectiveness of a Soviet SS-9 attack, as an increase of a small percentage of offensive missiles could override the defense phases.

I take this opportunity to correct that matter.

The second point that the last part of this short article by Mr. Jerry W. Friedheim says, "Senator Symington said it is a secret chart."

It is a secret chart because they classify it, but I would hope that it would be "unsecreted." Professor Galbraith, if that is the wrong word, forgive me.

Then it says, and I quote "I can say that the chart was designed to show what the Soviet Union could do to erode the Minuteman force if the Kremlin adopted a first strike policy and persisted in building weapons to carry out such a policy."

That is exactly what I said it would do.

But the final paragraph said, "Asked how Symington could have reached the opposite conclusion from the same chart, the Pentagon had no comment."

I did not reach the opposite, I reached exactly the same conclusion; namely, that it would show what the Soviet could do to erode the Minuteman force if the Kremlin adopted a first strike policy and persisted in building weapons to carry out such a policy.

In other words, it showed to me how relatively easy it would be for Soviet to overcome the so-called resistance of Sentinel/Safeguard system.

I mention this because it seems to me what Professor Galbraith has suggested here on that point is very important. We are a long way from war, as it was known previously. And scientists could well lead us into substantial reductions in military spending—those who are separated from various pressures—without affecting our national security.

I would like to ask a question of Dr. Galbraith not only because he is an extremely penetrating writer, but also because he is an economist.

In the New York Times economic section on Sunday, was an article by Mr. Hyman called, "Money, Money, Money, Where?" in which he pointed out that prime interest rates now in the banks are seven and a half percent, short term commercial loans were running as high as 9.58 percent, and went on to express concern about this situation from the standpoint of the international monetary application.

The article also pointed up the problem which has developed in Europe with respect to disagreements about the new currency, the special drawing rights, between the countries that have gold or a strong financial position and countries that do not. It said there could be a double crunch, mainly, a credit crisis in this country at the same time there was a currency crisis aboard.

Inasmuch as I have been concerned about the balance-of-payments problems in recent years, whatever the solutions are, is it not true that the tremendous amount of money, \$80 billion a year, \$953 billion since World War II, that has been put into the military budget is a major contributing factor to any credit or currency problems, both domestic and international, we may have today?

Mr. GALBRAITH. I would certainly agree with that, Senator Symington. It goes back to an interchange I had earlier with the chairman.

In the early 1960's, perhaps less as a result of wisdom than favorable circumstances, we had a period of comparatively high employment and several years of stable prices. We lost that fortunate combination of circumstances when the uncontrollable expenditures of Vietnam were superimposed on the economy. This did two things. First of all, it added a big new slug of spending, not covered by taxes. It also in some degree weakened the moral authority of the Government, this is a very important factor, particularly for maintaining stability as between wages and prices, this I regard as a very important factor in any stabilization strategy.

We were then forced to the increasing use of the monetary measures which you mentioned, particularly tight credit, very high interest rates.

And apart from the still undecided question as to how effective these are, there are two more questions about that policy.

First of all, there is the very great likelihood that at the moment when this policy becomes effective it will become too effective. It is an unpredictable and uncontrollable sort of policy which could easily lead to a very sudden cutback of business spending and consumer spending and a very sharp increase in unemployment, a cure, of course, that would be worse than the disease.

There is another factor which has not been so much discussed Mr. Chairman, which is very important. This particular technique of control is terribly, terribly discriminatory. High interest rates naturally enough, work adversely against the particular businessman who has to borrow money. That means the housebuilder, the man who has to carry inventories, the smaller businessman, the man who does not have internal sources of finance. These high interest rates are not a source of or great concern to the kind of firms we are talking about this morning who get their payments from the Government. They are not of great concern to General Motors and Ford, firms which can generate their own flow of funds. I must say I have been astonished at the way in which these smaller business communities accepts this particular policy. I think if it had any understanding of how it is being punished, its reaction would be quite different.

Senator SYMINGTON. One more question, my time is up. Do you, based on your analysis of this problem—and I read your most interesting article in *Harper's*—believe that we could cut heavily the present military budget, and by heavily I mean in billions, without affecting the security of the United States?

Mr. GALBRAITH. Oh, sure. I have no doubts that this could be done. This would involve, as I say, an accommodation to a very changed view of foreign policy, which indeed you and I and all of us have come to accept. I must confess that I would be a little cheered if we could hold the military budget at or a few billions below the present level. Then its position in the present economy would diminish as revenues and the economy expands. That we are spending far more than we need to on defense, I have no doubt.

Senator SYMINGTON. Thank you, Mr. Chairman.

Chairman PROXMIRE. Senator Percy?

Senator PERCY. Mr. Chairman, I would first like to say that it is not an easy role for my distinguished colleague from Missouri to criticize industry and the military, having formerly been a member of the industrial establishment and the Secretary of the Air Force, but I think he does so with an authoritative voice. He does so in such a way as to demand respect of his former colleagues in business and in the military.

I think he has a great experienced voice in the dialog that is now being carried on as we assess our national priorities.

I think certainly few of us could match the eloquence with which you, Dr. Galbraith, address yourself to these questions. I think you have done a great deal this morning to dispel many of the myths that have surrounded this very problem that we are facing now.

I would like to ask you a question that you did not touch on in your testimony—the role of the United States in furnishing arms to countries abroad. You have had a unique experience in observing at first hand our arming of President Ayub, General Ayub of Pakistan, to fight communism; our arming of India when it had some border problems with China, all with the explicit understanding, gentlemen's agreement by both parties, I presume, that they would never use the arms we furnished against each other. And yet, because Pakistan was armed, it appeared to me that India was taking an undue amount of its badly needed resources, needed for human betterment, in continuing to arm itself against a neighbor. The escalation between the two countries went on and, of course, they have used those arms against each other.

Would you care to comment on this with your much more expert opinion and also as to what dangers this country faces in trying to arm as many countries as we do abroad?

Mr. GALBRAITH. I would be delighted to. It is a rather large question.

President Truman once said of some politician: "He is not going anywhere; he is already answering questions that have not been asked." I wonder if I would first answer a question that has not been asked. Implicit in what both Senator Symington and Senator Percy have said, is the suggestion that businessmen, that the business community, is opposed to the line of discussion on which we are engaged here this morning. I would like to suggest to these two distinguished former businessmen that this is not the case.

I have been intimately associated in the last 2 or 3 years with the whole problem of Vietnam and the problem of organizing in Vietnam. And the problem of getting money to support candidates, including a Member of the Senate of the United States, who was running on a platform opposing that war. And when you reach my age in the United States, you are never allowed to do anything interesting in politics. You are always told to go out and get money.

So I know where the money came from, who supported the opposition to Vietnam, and who supported the candidates who were running against Vietnam. And I must tell you, gentlemen, it was not the students, it was not my fellow professors, and it was not the so-called intellectuals. That money came from businessmen. We would not have had the kind of public reaction that we had in Vietnam and there would have been no campaign on behalf of Senator McCarthy last year, except for business support. That is where it came from in overwhelming amounts. I hasten to say honestly, because I helped raise it.

So I hope the day is passed when, on these issues anybody associated with business has a bad conscience. You are almost as pure as we professors.

On the questions of arming nations abroad, I thought our aid to Pakistan and the pressure it eventually induced to support the same sort of offsetting assistance to India was mischief making in the extreme. I was enormously impressed a few weeks after I got to India as Ambassador.

We voted nearly a half billion to economic aid to India and sent 12 F104's to Pakistan. They got at least 10 times the attention in the Indian newspapers that the half billion of economic aid did; at least 10 times.

The further disaster is that we have used this aid essentially for political purposes, to support regressive and indeed reactionary forces, particularly in Latin America.

Why it could be imagined that Latin American armies have some substantial power vis-a-vis the Red Army escapes me. They do not protect democratic and liberal institutions within those countries. Governor Rockefeller said his trip around Latin America these days was a great success. No doubt we must believe Governor Rockefeller—implicitly. It would be hard to conclude, however, from that success that we win a great depth of warm friendship in those countries from the military aid that we supply.

There is no part of our policy in these last years that is more in need of a reexamination, more deeply suspect, than this business of arming the indigent.

Senator PERCY. I would like to ask you a question about the statements you made in your prepared testimony, that part of the military budgets that serve the balance of terror can be reduced only by negotiations with the Soviets.

I recognize that there is a limited amount of the budget that would be subject to these negotiations, but on the other hand, it would appear to me that just the fact that we get talks underway might cause a deescalation in the demands of each country, on our national resources for military purposes, just as in Vietnam we may just start to deescalate the whole effort and see if formal agreements may follow later.

How important do you consider it is that we get underway with talks with the Soviet Union? How important is it that we get underway promptly with those talks so that we can at least see whether it is not in the mutual interest of both nations to deescalate the arms race going on now?

Mr. GALBRAITH. I would completely agree with the thrust of that question in all respects.

Senator PERCY. Senator Gore introduced in the Senate, and to keep it bipartisan I cosponsored with him, a resolution calling upon the President to appoint a commission to make an independent comprehensive study of the U.S. weapons technology and factors bearing on national foreign policy decisions which must be made concerning strategic forces and policies. Would you consider that in addition to the Congress having an independent advisory group that it would be well for the President to not have an internal in-house study but to

make certain that that study, as Dr. Killiam has proposed, be made by independent outside members who would not be subjected to any kind of internal administrative postures?

Mr. GALBRAITH. I think this is true. I saw that when it was announced and without having made any very close study of it, certainly seemed to me like a good proposal.

It always seems to me that Congress needs a continuing source of information, a continuing recourse on these issues the proposal that I made here this morning, is not too different from the proposal made by several members of the House and Senate within the last week or two.

Senator PERCY. Dr. Galbraith, you mentioned the use of fear in selling programs. I would like to explore the role of fear in relationship to the response other nations unfriendly to us have as they watch what is going on in this country.

You have described a fearsome sort of process going on now, and it possibly explains why just recently a Western European diplomat said to me that he and many of his colleagues are in fear of the United States today. They do not blame the Soviet Union for being somewhat fearful and retaliating constantly with a very high proportion of its resources in building up a defense establishment because of the fear it feels. To us it is inconceivable that any one could be afraid of us. But do you feel that because of the process you described there is a basis for certain nations to have fear of the intentions of the United States? And therefore, that this causes a part of the nuclear escalation which has now gone on that is costing us such a fearful price?

Mr. GALBRAITH. Well, this is a hard question to answer.

In some legitimate and justifiable sense my answer would be no. I do not think that President Kennedy or President Johnson or President Nixon were or are unaware of the consequences of nuclear conflict. And I would not suggest for a moment that any of these three men have been irresponsible. The danger of accidents apart, on which a nonscientist cannot react, I do not question the civilian control of the ultimate decisions on these matters.

On the other side, many things get said in the United States that we have learned to discount. There are few things more important to an American than to know what not to believe, what speeches not to listen to. And we are quite expert in these matters. But this system of discount does not operate nearly so well abroad. Therefore, when a foreigner, for example, encounters the comments of some of our old friends in the Air Force—and we know our Air Force generals are the most compulsive literate men since Caesar. They perhaps do not apply the same system of discounts to the comments of General LeMay or General Twining or General Power, some of which I have put in the record today, that we do.

I notice here, for example, a comment from General Twining in his book of 2 years or a lot more ago that reads:

China under its present leadership seems to me at this writing to be a practically hopeless case. Naked force seems to be the only logic which the leadership of that unfortunate nation can comprehend.

Well, now, when the head of the Air Force makes a statement of that sort and it is headlined in the Peking papers, I would assume they might have a certain uneasiness which neither you nor I would have. Because we would be more aware that Twining was talking through his hat.

Senator PERCY. Mr. Chairman, I would like to thank our witness this morning for providing such an excellent body of testimony. I would also like to commend you for the substance of these hearings. I think this is the most important set of hearings that probably will be undertaken by the Congress this year. As I have gone across the country from campus to campus, I find that the setting of national priorities, where we put our emphasis, what we think is important to the future of this country is now being asked by citizens across the country, particularly our young people.

I do not think by discussing the military and its role we are impugning the motives or intentions or patriotism or loyalty, or sense of dedication of the military at all. They should not be sensitive to this anymore than Congress should have its morale shattered if anyone criticized Congress. That is our daily bread, it is done every single day, and I have not noticed anyone running out of Congress because of it.

I think the military must be subjected to security and analysis and many people in the military felt deeply that this process must be undergone. The military is trying to create a situation which has difficulties, I think Mr. Schultz described it as having every conceivable contingency being provided against by every service in every conceivable way in every conceivable part of the world. It is about time we recognize we simply cannot afford it.

We have got to afford other expenditures when studies reveal we need almost \$3 billion to be spent on food. If we spent \$500 on food per child, Government and welfare programs would likely be saved \$1,500 per person. That is a 300-percent return on investment and we have got to find that money, and part of that money is buried in this military budget.

I certainly commend the distinguished chairman of this committee for undertaking these hearings which I think may prove in the end that the greater threat to this country exists from within than from without, and we have got a Nation to build at home just as we provide for adequate defense from threats abroad.

Chairman PROXMIRE. Mrs. Griffiths has yielded to Congressman Moorhead and we will come back to Mrs. Griffiths when Congressman Moorhead has finished.

Representative MOORHEAD. Thank you, Mr. Chairman, and most of all, thank you Professor Galbraith for a very informative and helpful testimony.

I certainly agree with your idea of the function of these hearings before this subcommittee and your statement that our concern of this subcommittee should not be primarily the efficiency in military procurement. I have been interested in that field in another subcommittee of the House, but the purpose was to develop a healthy skepticism

on the part of the people so that we could have these hearings and explore the much more basic issue which is not how efficiently and economically we can buy weapons but more basically whether we are buying weapons we really do not need. This is the thrust of your testimony and I think that will be the purpose of these hearings before this subcommittee.

I also commend you, sir, for purely dividing the strategic from the conventional military budget. I think this is important because you mentioned the use of fear. I think that people can be driven by fear where the nuclear part of the budget is concerned, but not so much where the conventional budget is concerned. Would you agree in that?

Mr. GALBRAITH. Yes, sir, although I would not want to put the stamp of endorsement on all of the nuclear part of the budget, as Dr. Schultze has made vividly clear, there has been in recent years a great proliferation of nuclear programs, which do not substantially alter the balance of terror or which indeed, may set in motion a new upward cycle.

Representative MOORHEAD. I think my thrust was that we can go to the people on the conventional side of the budget and say we have 15 attack aircraft carriers and I think you can go to sleep that night just as safely if we only had 14 attack aircraft carriers considering the fact that no Communist nation has any attack aircraft carriers.

Mr. GALBRAITH. I think this is right.

Representative MOORHEAD. The other thing, of course, is the size of the budget. According to a story in the New York Times, the National Security Council is circulating budget options which on the strategic side go from \$6 to \$60 billion, where the conventional forces go from a low of \$26 billion to a high of \$85 billion, or \$59 billion of potential reallocation of resources, not that I think we will ever get down to \$26 billion, but at least it describes options to our present rigid posture and potential for reallocation.

You suggested, in your statement, a military audit commission. Do you think this function can be performed by the General Accounting Office if we give them the funds and direction to do that job?

Mr. GALBRAITH. That would be one possible home for it. And in Elmer Staats we have a man who is both experienced and dedicated and with courage.

My own thought I must say, Congressman Moorhead, would be that perhaps a body of such importance should be set up under congressional auspices. He would be attached to the Congress as the Comptroller General is, but be independent of the Comptroller General.

Representative MOORHEAD. What would you think, Professor Galbraith, of having this military audit commission report to a special congressional joint military nonlegislative committee?

Mr. GALBRAITH. A special military study committee. This might well be the solution.

Of course, the Comptroller General does not report to any particular committee, does he? He is a servant of Congress as a whole. So it would not be absolutely necessary that this be reported to a committee.

But the proposal of which I think you were one of the coauthors,

that was released last week by a special military study group of the Congress for a special joint congressional committee to which the military audit commission would report, would certainly be one possibility. I would hope it would also be available, of course, to Members of the Armed Services Committee. There is no place where it is so much needed as there.

Representative MOORHEAD. I agree, I just would hope to see that it would not be totally captive of the Armed Services Committee. I think many Members of Congress feel we do not have sufficient information in this field.

Mr. GALBRAITH. No, I carefully avoided suggesting that it be appointed by the Armed Services Committee. God forbid.

Representative MOORHEAD. In your testimony you referred to the fact that until recent times the civilian pressures on the Federal budget were not extreme. I think this is an important thought to expand upon. In my first years in the Congress, our problem, as I saw it, was largely conceptual, trying to get new ideas, legislative ideas, Federal aid to education, war on poverty, through the Congress, and it was not until later years that we had to face the financial problem of funding these programs. By that time we were competing with the war in Vietnam for funds. So the pressures today are different from what they were a few years back.

Mr. GALBRAITH. This is a very important point. We got a lot of things on the agenda in 1964 and 1965. These now need steady increases in funds. The problem as far as the Federal level is concerned is much less one of new program than giving proper funding to the existing ones.

Representative MOORHEAD. And the only source that seems controllable in the budget overall, it seems to me, is in the military budget, and I think that careful scrutiny by this subcommittee will help in that respect, Mr. Chairman.

Mr. GALBRAITH. We should always have in mind, I am being didactic here—it is a tendency of a lifetime spent as a professor—that there is a basic and fundamental flaw in the fiscal system of the United States. Increasing population, increasing urbanization, the cost of affluence itself—such as more automobiles on the road, more fumes in the air, more pollution in the streams from industrial sources, more garbage to be removed as people become richer—all of these costs—education, population growth, urbanization, and wealth itself—accrue overwhelmingly to the local units of the Government. Whereas the revenues that are associated with economic growth, the expanding tax revenues that come from expanding personal incomes, expanding production, and hence, expanding corporate profits, and corporate taxes—these accrue to the Federal Government.

Whoever it was that arranged things that way, is open to criticism. But that is the way it is. So that we must bear in mind that it is part of our constant and continuing problem to protect and redirect the revenues of the Federal Government to the cities, particularly the cities.

Representative MOORHEAD. Thank you, Professor Galbraith. Thank you, Mr. Chairman.

Chairman PROXMIRE. Mrs. Griffiths?

Representative GRIFFITHS. Thank you, Mr. Chairman.

I would like to congratulate Professor Galbraith for suggesting there are defense firms that really are a part of the Federal Establishment. But I hope you do not expect anything to come of it. Twelve years ago, on May 28, I made the first major speech I ever made on the floor of Congress, and I pointed out that then there were six defense firms that supplied the Federal Government only and that for all practical purpose every employee, including the president of each firm, was as much a Federal employee as I was. And I never got any place with it. Nothing happened at all.

Mr. GALBRAITH. I am happy, Mrs. Griffiths, to salute you as a pioneer on the subject. I yield my pioneer rights on this.

Representative GRIFFITHS. I did my best. I am glad you spoke out, but I do not think much will come of it.

I would like to ask secondly, in a discussion as to national priorities, would you suggest that we just discuss whether we should have this weapons system versus cleaning up Lake Erie or just how are you going to make this discussion work? How would we do it?

Mr. GALBRAITH. Well, ultimately, of course, these choices are going to be made by the Executive and by the relevant committees of Congress. In this discussion we are affirming for the Congress and to the country as a whole for everybody who is watching these hearings, our sense of the problem of priorities. And in that problem of priorities, you have two great operative facts: First, there is a declining pressure of military need—unless we are going to use it for such nonsensical misguided enterprises as the salvation of nonexistent Vietnamese democracy—or whether we are going to use it for the things which are pressing so heavily on our own community and in some degree tearing it apart.

I might say this is really the question. Once this point is established, then it will become, one hopes, a compunction on the executive and compulsion on the other committees of the Congress to respond to these public attitudes.

May I say that I grew up even closer to Lake Erie than you did. I was just 4 or 5 miles from the middle of the North Bank and I am even more concerned with getting rid of that terrible dirt that you people in Detroit are pouring into it.

Representative GRIFFITHS. I am going to testify on it. Let me mention here that I think one of the most fascinating things which occurred since I have been in Congress was the passage of the Elementary Education Act, which was passed after it was named the National Defense Education Act. So I think if you are going to discuss this in terms of priorities, you are either going to have to rename all domestic problems as defense problems, or you are going to find yourself discussing defense versus any other trivial thing.

Or I want to say that I think you should do the exact opposite from what Mr. Schultze is going to say to us, you are going to have to show

what the defense is doing. You are going to have to take it item by item and contract by contract, and show that they are wrong.

It is this kind of contract versus the needs of the rest of the country. As long as you say that this is something that is going to defend the country, and we need it, it is very hard to argue. But when you show that the C-5A is a contract which extends three times the term of a Congressman, 2 years beyond the term of a President, twice the tour of duty of any body in the Defense Department, that nobody is responsible for this item, then you begin to make some sense, that this is in reality quite foolish and that it is an incredible amount of money being spent on it.

I went down to see the space shot last time, and I hate to be an ungrateful guest, but as long as you can call this thing a trip to the moon, who knows what the cost of the trip to the moon is? But it is now not just a trip to the moon, this thing is taking on the elements of a WPA project. You are having all kinds of little side trips. You are having specialized shots for specialized information at an incredible cost.

Now we are going to tie up with the military. How do you argue these things? I think you have to argue them item by item almost.

Senator PERCY. Would the distinguished Congresswoman yield?

Representative GRIFFITHS. Yes.

Senator PERCY. This is exactly where we are taking the ABM as a symbol of how you can penetrate deeply into one system and show it, in a relatively few months to be the total fraud that the Sentinel was and have the administration admit it was a fraud.

Representative GRIFFITHS. I agree, but if you just say this is the defense of the United States, you have already lost the argument.

Mr. GALBRAITH. I would heartily agree with the Congressman. But I would think the day is past when we should bootleg anything in under the cover of defense. It was a mark of the weakness of those who were concerned about priorities 10 years ago when we passed the Defense Education Act and had to put that word "Defense" in, in order to make it respectable. I think that day is past.

I think we have moved on from that and I would like to urge, against the greater political judgment of my good friend from Michigan, that the time has come when we should deal candidly and honestly with the question of defense as against the question of domestic need.

Representative GRIFFITHS. Then you are going to say we are going to put the Defense Department up against cleaning up the Great Lakes?

Mr. GALBRAITH. Yes.

Representative GRIFFITHS. How are you going to do it?

Mr. GALBRAITH. I might lose the first time, but I think—

Representative GRIFFITHS. I have already lost for 12 years.

Mr. GALBRAITH. I would plead that we had better face that issue headon, and in all candor. Maybe I am being impractical, but this would be my plea.

Representative GRIFFITHS. Do you know, Mr. Galbraith, at the end of 180 years the quartermaster, which had been handling clothing since Valley Forge, was still placing contracts with people who did not even own a sewing machine? How can you beat this kind of thing, with the simple need on the part of the civilian forces?

Mr. GALBRAITH. Well, I must confess that I am on a very weak ground here, because I speak with much less political experience than you do. I do, however, since that this is an issue on which the people of the United States, or a great many of them, are now very much concerned, very much aroused. I think we should take advantage of our opportunity for dealing honestly with an issue.

And this is a case where we can.

Representative GRIFFITHS. I think you have to have much greater information.

Senator SYMINGTON. Would you yield?

Representative GRIFFITHS. Yes, I yield.

Senator SYMINGTON. In support of the position both Dr. Galbraith takes and you do, Mrs. Griffiths, it interests me that some of the most ardent opponents of the poverty program are people who think the solution is an education. One set of figures that really is disturbing to me is that the original budget for ammunition to be used in Vietnam over the next 12 months was \$5.2 billion, and the total Federal appropriation request for primary and secondary education was \$2.3 billion, less than half. I think that if those type and character of figures are brought out by this committee and people like you, I agree, that this may be an opportunity to put first things first.

Thank you.

Representative GRIFFITHS. Thank you very much, but I personally believe that you cannot argue it only on the basis of generalities. I think you have to put some specifics against the idea that "we are protecting you and you will not wake up in the morning unless we get a hundred billion." I think you have to put some real specifics beside it or you will never win the argument, at least not in our time.

Mr. GALBRAITH. I think you misunderstand me. I am not much in favor of generalities. This committee, unhappily, is one which has to resolve these matters in terms of principles. The application of the principles is after all going to rest with the Bureau of the Budget, with the Executive, and with the Appropriations Committees. That was my only point. I do think the day is past when we should try to bootleg civilian programs in under any sort of military disguise. I think we have to face very clearly the question of choice as between military programs and unnecessary civilian needs which are terribly, terribly urgent—including Lake Erie.

Representative GRIFFITHS. Well, I would not call the civilian programs defense programs. But I would not let the Defense argue in general terms that this is for the defense of the country. What I would make them argue is that this is to pay off General Electric, General Dynamics, and so forth. This is the amount of money these people are getting from this, and this is the way the thing operates, or it does not operate at all.

Mr. GALBRAITH. I think the disagreement between us is not very great.

Chairman PROXMIRE. Thank you very, very much, Professor Galbraith, for a very fine start for our hearings and for a delightful, amusing, and informative presentation.

Our next witness is Prof. Charles Schultze, senior fellow of The Brookings Institution, and former Director of the Bureau of the Budget.

Mr. Schultze, we are delighted to have you. We received your statement last night and read it thoroughly; and any way you choose to present the statement is acceptable.

**STATEMENT OF CHARLES L. SCHULTZE, SENIOR FELLOW, THE
BROOKINGS INSTITUTION, AND PROFESSOR OF ECONOMICS
UNIVERSITY OF MARYLAND**

Mr. SCHULTZE. If you do not mind, Mr. Chairman, my prepared testimony is too long to read and I will try to summarize it and read parts of it.

I appreciate the opportunity to be here, particularly without any real responsibilities to defend, which always makes it more difficult.

I welcome the subcommittee's decision to hold these hearings on the military budget and national economic priorities. I think they are quite timely. They are timely because over the next several years the Executive and the Congress will be faced with a series of basic decisions on military programs and weapons systems, whose outcome will largely determine not only the Nation's security and its military posture, but also the resources available to meet urgent domestic need.

It would be most unfortunate if those decisions were made piecemeal without reference to their effect on nonmilitary goals and priorities. The benefits and costs of proposed military programs cannot be viewed in isolation. They must be related to and measured against those other national priorities which, in the context of limited resources, their adoption must necessarily sacrifice.

I might also add parenthetically that a review of the military budget in the context of a long-run evaluation of national priorities will directly serve the interests of national security itself.

In the past year there has sprung up a widespread skepticism about the need, effectiveness, and efficiency of many components of the defense budget. This is a healthy development. But it must be harnessed and focused. In particular it must not be allowed to become a "knee jerk" reaction, such that any proposed new military program is automatically attacked as unneeded or ineffective. We still live in a dangerous world. Effective and efficient provision for the national security should rightfully be given a high priority. I believe that a proper balancing of military and civilian programs can best be achieved by a careful and explicit public discussion and evaluation of relative priorities in a long-term budgetary context. Neither the extreme, which automatically stamps approval on anything carrying

the national security label, nor its opposite which views any and all military spending as an unwarranted waste of national resources, has much to recommend it as a responsible attitude.

In this context I should like to discuss with the subcommittee three major aspects of the problem of national priorities:

First, a brief summary projection of Federal budgetary resources and the major claims on those resources.

Second, a more detailed examination of the basic factors which are likely to determine the military component of those budget claims over the next 5 years.

Third, some very tentative suggestions on my part for improving the process by which defense budget decisions are made, designed particularly to bring into play an explicit consideration and balancing of national priorities, both military and civilian.

I think I can summarize the budget outlook I would like to present to the committee very quickly. I published it elsewhere so I can simply go through its major characteristics.

I start with the assumption that the best way to begin such a projection is to assume unchanged Federal tax rates. I do not believe that the country, particularly after Vietnam is over, is going to be willing to have higher Federal tax rates. So I start with the assumption of unchanged tax rates. Granted that assumption then, there are four major factors which will determine the budgetary resources available over the next 5 years, resources available for expanding existing programs, creating new ones, revenue sharing with the States and localities or tax cuts.

The amount available for those things will be determined by four factors:

First, by how much will revenues grow with the growing economy;
Second, how much will we save on budgetary costs when and if Vietnam is over.

These two are obviously plusses, they add to budgetary resources.

Third, as a subtraction, the built-in or automatic increase in civilian expenditures which accompanies economic growth and population growth and,

Fourth, as a subtraction from available resources, the growth in non-Vietnam military spending.

Put all four together and you have at least a rough estimate what we might have available 5 years out as a fiscal dividend.

Let me go through each of these factors briefly. With respect to revenue growth, if the economy continues to grow at a healthy but not excessive pace, in real terms something like maybe $4\frac{1}{2}$, $4\frac{3}{4}$ percent a year, with a moderation of the current rate of inflation, but still some inflation, under those conditions Federal revenues will grow about \$15 to \$18 billion a year. Five years from now under present tax rates Federal revenues ought to be about \$85 billion higher than they are now. So there is \$85 billion plus.

However, it is my own judgment, at least, that the surcharge is most likely to be removed as soon as Vietnam is over with or significantly slowed down. The revenue yield from the surcharge 5 years out

would be \$15 billion, so I subtract that from the \$85 billion to get \$70 billion as the growth in revenue—after the removal of the surcharge—over the next 5 years.

It is my estimate that the incremental or added costs in Vietnam—the costs that could be eliminated if we had a cease-fire troop withdrawal and return of the Armed Forces strength level to what it was pre-Vietnam—that the cost involved there are about \$20 billion.

Now, obviously, those budgetary savings would not be available immediately following the cease-fire but within something like 18 months to 2 years afterward, if my assumptions are borne out in terms of a complete withdrawal there would be about \$20 billion of budgetary savings to add to the \$70 billion of revenue growth giving \$90 billion to start with.

From that \$90 billion however, must be subtracted the two factors I mentioned earlier. First, the built-in growth in civilian expenditure. Such things as growing population and workloads, the impact of those on such agencies as Internal Revenue, the Park Service, Customs and Immigration, the Federal Aviation Agency and the like. Such things as the fact when the GI's come back from Vietnam, educational expenditures under the GI bill of rights will arise. Such things are undoubted rise in cost of medicaid; such things as propensity of the Congress in general to increase social security benefits pretty much in line with the growth of revenues of the system. Such things as the increase in interest payments on the national debt which will occur even if interest rates level off as you roll over old debt into new debt.

You put all of these things together, plus some I have not mentioned, and again it is my estimate that automatic increase in Federal civilian expenditures might, 5 years out, be about \$35 billion. An average of about \$7 billion a year built-in growth. A significant part of which is the assumed growth in social security benefits.

Take the \$35 billion from the \$90 billion and you are down to \$55 billion, as the net resources available for expanding programs or creating new ones, for revenue sharing, for tax cuts.

But I have one more deduct to make, the potential growth in non-Vietnam military expenditures. It seems to me there are five kinds of things which point to an increase in those expenditures.

First and most obviously, there will occur military and civilian pay increases chargeable to the Defense budget. Even after Vietnam, there would be on the assumptions I have made something like 2.8 million men in uniform and roughly half of the civilian establishment of the Federal Government is employed by the Defense Department. As pay increases in the private sector of the economy, it will increase in the Department of Defense as well.

This July 1, the pay raise will cost the Pentagon—the military and civil pay raise—something in the neighborhood of \$2.2 billion. Then if I assume a modest 4- to 4½-percent pay raise each year hereafter, I get \$1.4 billion, \$1.5 billion a year increased cost per year.

Next, there are a number of weapons systems already approved in the Defense plans, the bulk of the spending on which has not yet occurred. Therefore, we have to look forward to that spending oc-

curing in the future. Just as examples, I might list the Minuteman III, which is a \$4.5 billion program, the Poseidon missile program, \$5.5 billion; the Safeguard with its nuclear warheads currently estimated at \$8 billion.

The F-14 Navy fighter which, according to the 1970 posture statement would replace all of the F-4's. The F-15 air-to-air combat fighter for the Air Force; three nuclear carriers at \$540 million each; 62 new naval escorts at a package cost of almost \$5 billion; the VSX, a new Navy antisubmarine plane; a large number of new high speed attack submarines, and also some quiet submarines.

These are some examples of the weapons systems which have been approved but on which the bulk of the spending has not yet occurred.

The third item, cost escalation. With this subcommittee I do not need to spend any time on this, you are fully aware of the facts that historical experience teaches us that original estimates of the cost of these weapons systems are only very rarely an accurate estimate, and that final costs are usually substantially higher than originally estimated costs.

Fourth, new weapons systems advocated by the Joint Chiefs, but not yet approved. The biggest, of course is the AMSA—the advanced manned strategic aircraft—which, if a procurement decision is made, would have investment costs undoubtedly running at least \$10 billion.

A new so-called AX—an advance attack bomber for the Air Force—is now under development. The F-12 interceptor plane, the main battle tank, an advanced strategic missile in super-hard silos.

These are among the items being advocated by the Joint Chiefs. In the normal course of events, all of these systems would not be approved, but also in the normal course of events, some would be.

Finally, mutual escalation of the arms race. Again, this is an item that has been discussed at length before the Congress and I need not spend a good bit of time on it. Let me call your attention, however, to one factor which is perhaps the most significant of all in raising the possibility of a new round of escalation. We are equipping our missiles with multiple independently targeted reentry vehicles and more importantly are designing into those reentry vehicles the accuracy to hit Soviet missiles.

Secretary Laird, for example, in his testimony before the Armed Services Committee, asked for \$12 million to improve the accuracy of the Poseidon, to make it a hard target killer. What that means is the Soviet Union is now put on notice that the United States and the Poseidon system alone is building some 4,000-5,000 hard target killers capable of being targeted on Soviet land based missiles.

Chairman PROXMIRE. Senator Symington would like to ask a question.

Senator SYMINGTON. Thank you, Mr. Chairman.

Mr. Schultze, if Secretary Laird states that this Poseidon development could "improve significantly the accuracy of the Poseidon missile, thus enhancing its effectiveness against hard targets," based on your expertise in this field does that not imply, if it does not actually state, that the United States is going after a first strike capability?

Mr. SCHULTZE. Well, I do not want to read intentions in any thing. I think what you have to read is capability. That is what we read in the Soviet, not so much intentions but capabilities. If I were Marshal Grechko, my interest would not be so much in trying to "crystal ball gaze" at what U.S. intentions were but what their capabilities were and insofar as Soviet land-based missiles forces are concerned, clearly this does pose in Soviet eyes the possibility of taking them out preemptively.

Now, I find it impossible to believe that any sane man deliberately would build a first strike capability. The problem is that the technology to get high accuracy is available, so in the eyes of defense planners why not use it. So we design the accuracy into the missile, even though as I say, Senator, I find it incredible to believe that anybody would deliberately build the first strike capability. The real problem is that the other side has got to assume, once you have the capability, he has to prepare against it. I think that is the real problem.

So far as their land-based missiles are concerned, this is something that the Soviets must face.

Chairman PROXMIRE. All right.

Mr. SCHULTZE. I do not know whether another round in escalation will occur, but in looking at future defense budgets, one must at least take this into account as a possibility and a not insignificant possibility.

Now, when you put all of this together, what does it mean with respect to military budget? If I cost out the approved weapons systems, take into account the pay raises, allow for some modest escalation in cost, but do not allow for a new round in strategic arms escalation and do not allow for any other systems not yet approved to come into being—so if I take approved systems, pay raises, modest cost escalation, it would be my judgment over the next 5 years the non-Vietnam defense budget should rise by about \$20 billion, just about equal to the savings which could be made by a cessation of hostilities in Vietnam.

If I take that \$20 billion estimate and subtract it from the \$55 billion I came down to with the earlier algebra, I get the \$35 billion as the magnitude in fiscal 1974 of the fiscal dividend, starting from \$90 billion, it has eroded down to \$35 billion, and that \$35 billion itself is put in jeopardy by the things I did not take into account in any numerical estimates; namely, the new weapons systems like the AMSA and possibility of yet another round of strategic arms escalation.

In a sense what I have done is really make a projection, not quite a forecast, in the sense that there is nothing inevitable about this projection.

Some of the weapons systems I listed are in early stages of procurement and could be canceled. Other areas in the military budget can be analyzed, reviewed, and if warranted, reduced as a budgetary offset to the new systems. Hopefully, disarmament negotiations if held quickly, may prevent mutual strategic escalation. My projection assumes that no changes in basic military policies, postures, and force

levels occur. It is obviously the whole purpose of these hearings to examine the assumption, in the context of other national priorities.

While the projections I gave above discuss some of the specific weapons systems which are likely to cause the defense budget to expand sharply in the next 5 years, it does not address itself to the underlying forces which threaten to produce this outcome.

Why are we getting this escalation in defense budget? Now, while there are a number of forces producing the increase, I would suggest four are particularly important.

First is the impact of modern technology on the strategic nuclear forces. In effect, I have gone through that, particularly pointing out the impact of high accuracy, multiple independently targeted reentry vehicles, on Soviet response, and in turn forcing us to another response. I need not belabor that one further, at least in the summary.

The second major factor is the propensity of military planners to prepare against almost every conceivable contingency or risk.

And this applies both to force level planning and to the design of individual weapons systems. Forces are built to cover possible, but very remote, contingencies. Individual weapons systems are crowded with electronic equipment and built with capabilities for dealing with a very wide range of possible situations, including some highly unlikely ones.

If military technology were standing still, this propensity to cover remote contingencies might lead to a large military budget, but not to a rapidly expanding one. But, as technology continually advances, however, two developments occur: As we learn about new technology, we project it forward into the Soviet arsenal, thereby creating new potential contingencies to be covered by our own forces—MIRV is a good example; (2) the new technology raises the possibility of designing weapons systems to guard against contingencies which it had not been possible to protect against previously.

Continually advancing technology and the risk aversion of military planners, therefore, combine to produce ever more complex and expensive weapons systems and ever more contingencies to guard against.

Let me give some examples.

According to Dr. John S. Foster, Jr., Deputy Director of Defense Research and Engineering, in testimony before the Senate Armed Services Committee last year, the Poseidon missile system was originally designed to penetrate the Soviet TALLINN system—a system originally thought to be a widespread ABM defense. When this system turned out to be an anti-aircraft system, the deployment decision on the Poseidon was not revised. Rather, it was continued as a hedge against a number of other possible Soviet developments including, in Dr. Foster's words, the possibility that "the Minuteman force could be threatened by either rapid deployment of the current Soviet SS-9 or by MIRVing their existing missiles and improving accuracy."

Once the Soviets began to deploy the SS-9 in apparently larger numbers than earlier estimated, however, this gave rise to the decision to deploy a "Safeguard" ABM defense of Minutemen sites.

In short, the sequence went like this: (1) The Poseidon deployment decision was made against a threat which never materialized; (2) despite the disappearance of the threat against which it was designed, the Poseidon was continued, presumably as a hedge against other potential threats, including faster than expected Soviet deployment of the SS-9; (3) but now a decision has been made to hedge against the SS-9 by building a "hardpoint" ABM—so we are presumably building the Poseidon as a hedge against a number of possible Soviet threats, including the SS-9, and then building a hedge on top of that; (4) finally, new technology has made it possible to design a hard target killing accuracy into the Poseidon—an accuracy not needed to preserve our second strike capability against either the SS-9 or a Soviet ABM. The technology is available—why not use it! Yet the existence of that capability may well force a major Soviet response.

Another example of hedging against remote threats is the currently planned program of improvements in our continental air defense system. The existing SAGE system cost \$18 billion to install, but is apparently not very effective against low-altitude bomber attack. Although the Soviets have no sizable intercontinental bomber threat, the decision has been made to go ahead with major investments in a new air defense system. The major reasons given for this decision are these: to deter the Soviets from deciding to reverse their longstanding policy and develop a new bomber; to guard against one-way kamikaze-type attacks by Soviet medium-range bombers; and to protect those of our missiles which would be withheld in a retaliatory strike. There is admittedly no direct threat to be covered. But a number of more remote threats are covered. And since we cannot defend our cities against Soviet missiles, it gives small comfort to have them protected against as yet non-existing bombers or against kamikaze attacks.

The problem of what contingencies and risks are to be guarded against goes to the very heart of priority analysis. Primarily what we buy in the military budget is an attempt to protect the Nation and its vital interests abroad from the danger and risks posed by hostile forces. We seek either to deter the hostile force from ever undertaking the particular action or if worse comes to worst, to ward off the action when it does occur. Similarly, in designing particular weapons systems, the degree of complexity and the performance requirements built into the systems depends in part on an evaluation of the various kinds of contingencies which the weapon is expected to face. Now there are almost an unlimited number of "threats" which can be conceived. The likelihood of their occurrence, however, ranges from a significant possibility to a very remote contingency.

Clearly, we cannot prepare against every conceivable contingency. Even with a defense budget twice the present \$80 billion, we could not do that. The real question of priorities involves the balance to be struck between attempting to buy protection against the more remote contingencies and using those funds for domestic purposes. In any given case, this is not a judgment which can be assisted by drawing up dogmatic rules in advance. And, since it is a question of balancing priorities, it is not a question which can be answered solely on military grounds or

with military expertise alone—although such expertise must form an essential component of the decision process.

For what it is worth, it is my own judgment that we generally have tended in the postwar period to tip the balance too strongly in favor of spending large sums in attempting to cover a wide range of remote contingencies.

A third important factor which is responsible for driving up the size of defense budgets is "modernization inflation." This is the term used by Malcolm Hoag. The weapons system we now buy are vastly more costly than those we bought 10 or 20 years ago. The F-111A and the F-14A, for example, will cost 10 to 20 times what a tactical aircraft cost at the time of Korea. A small part of this increase is due to general inflation. But by far the largest part is due to the growing complexity and advanced performance of the weapons. In the case of tactical aircraft, speed, range, bombload, accuracy of fire, loiter time, ability to locate targets, and other characteristics are many times greater than models one or two decades older. The same kind of performance comparison can be drawn between modern missile destroyers and their older counterparts, and between modern carriers and their predecessors. We pay sharply increased costs to obtain sharply increased performance. Yet seldom if ever is this advance in "quality" used to justify a reduction in the number of planes or carriers or destroyers or tanks.

The fourth and perhaps the most important reason for increasing military budgets is the fact that some of the most fundamental decisions which determine the size of these budgets are seldom subjected to outside review and only occasionally discussed and debated in the public arena. This problem is most acute in the case of the budget for the Nation's general purpose forces.

Congress does examine and debate the wisdom and effectiveness of particular weapons systems—the TFX, the C-5A, et cetera. But choices of weapons systems form only a part of the complex of decisions which determine the budget for our general purpose forces.

Those decisions can conveniently be classified into four types:

1. What are the Nation's commitments around the world? While our strategic nuclear forces are primarily designed to deter a direct attack on the United States, our general purpose forces have their primary justification in terms of protecting U.S. interests in other parts of the world. At the present time, we have commitments of one kind or another, to help defend some 40-odd nations around the world.

2. Granted the existence of these commitments, against what sort of contingencies or threats do we build our peacetime forces? A number of examples will help illustrate this aspect of decisionmaking:

Pre-Vietnam (and, barring changes in policy, presumably post-Vietnam), our general purpose forces were built to fight simultaneously a NATO war, a Red Chinese attack in Southeast Asia, and to handle a minor problem in the Western Hemisphere, à la the Dominican Republic. It is the so-called "two and a half war" assumption. Obviously the forces-in-being would not be sufficient, without further mobilization, to complete each of these tasks. But they were

planned to handle simultaneously all of the three threats long enough to enable mobilization to take place if that should prove necessary.

Another kind of a contingency is exemplified in the case of the Navy, which was designed, among other tasks to be capable of handling an all-out nuclear, protracted war at sea with the Soviet Union.

3. Granted the commitments and contingencies, what force levels are needed to meet those contingencies, and how are they to be based and deployed?

The Navy, for example, has 15 attack carrier task forces. The carrier forces are designed not merely to provide quick response, surge capability for airpower, but to remain continually on station during a conflict.

The pre-Vietnam Army comprised $16\frac{1}{3}$ active divisions with eight Ready-Reserve divisions. Or the $16\frac{1}{3}$ division force is supported by a planned 23 tactical airwing or the Navy has eight antisubmarine carrier task forces.

These are the kind of force level decisions involved.

4. With what weapons systems should the forces be equipped? Such questions as nuclear versus conventional power for carrier and carrier escorts, the F-111B versus the F-14 and so forth.

Let me hasten to point out that there is no inexorable logic tying one set of decisions in this litany to another. Do not think that once a decision has been made on commitments that the appropriate contingencies we must prepare against are obvious and need no outside review; or that once we have stipulated the contingencies that the necessary force levels are automatically determined and can be left solely to the military for decision; or that once force levels are given, decisions about appropriate weapons systems can be dismissed as self-evident. There is a great deal of slippage and room for judgment and priority debate in the connection between any two steps in the process.

Some examples might help.

There is no magic relationship between the decision to build for a $2\frac{1}{2}$ war contingency and the fact that the Navy has 15 attack carrier task forces. In the Washington Naval Disarmament Treaty of 1921, the U.S. Navy was allotted 15 capital ships. All during the 1920's and 1930's the Navy had 15 battleships. Since 1951—with the temporary exception of a few years during the Korean war—it has had 15 attack carriers, the modern capital ship. Missions and contingencies have changed sharply over the last 45 years. But this particular force level has not.

Similar questions arise in other areas. Does the $16\frac{1}{3}$ division Army peacetime force need 23 tactical air wings for support, or could it operate with the Marines' 1-1 ratio between air wings and divisions? Granted the 15 carrier forces, must all of their F-4's be replaced by F-14's as the Navy is apparently planning.

In short there is a logical order of decisions—commitments to contingencies to force levels to weapons systems—but the links between them are by no means inflexible, and require continuing review and oversight.

Now, let me cover rather parenthetically, two separate points very quickly. The size and rapid increase in the defense budget is often blamed on the military-industrial complex. Sometimes it is also blamed on the fact that the Budget Bureau uses different procedures in reviewing the military budget than it does in the case of other agencies. Let me take each of those points quickly.

The uniformed Armed Services and large defense contractors clearly exist. Of necessity, and in fact quite rightly, they have views about and interests in military budget decisions. Yet I do not believe that the "problem" of military budgets is primary attributable to the so-called military-industrial "complex." If defense contractors were all as disinterested in enlarging sales as local transit magnates, if retired military officers all went into selling soap and TV sets instead of missiles, if the Washington offices of defense contractors all were moved to the west coast, if all this happened and nothing else, then I do not believe the military budget would be sharply lower than it now is. Primarily we have large military budgets because the American people, in the cold-war environment of the 1950's and 1960's, have pretty much been willing to buy anything carrying the label "Needed for National Security." The political climate has, until recently been such that, on fundamental matters, it was exceedingly difficult to challenge military judgments, and still avoid the stigma of playing fast and loose with the national security.

This is not a reflection on military officers as such. As a group they are well above average in competence and dedication. But in the interests of a balanced view of national priorities we need to get ourselves into a position where political leaders can view the expert recommendations of the military with the same independent judgment, decent respect, and healthy skepticism that they view the budgetary recommendations of such other experts as the Commissioner of Education, Surgeon General, and the Federal Manpower Administration.

I think the same approach can be taken with respect to the procedures used by the Budget Bureau to review the budget of the Defense Department. In all other cases, agency budget requests are submitted to the Bureau, which reviews the budgets and then makes its own recommendations to the President subject to appeal by the agency head to the President. In the case of the Defense budget, however, the staff of the Budget Bureau and the staff of the Secretary of Defense jointly review the budget requests of the individual armed services. The staff make recommendations to their respective superiors. The Secretary of Defense and the Budget Director then meet to iron out differences of view. The Secretary of Defense then submits his budget request to the President, and the Budget Director has the right of carrying to the President any remaining areas of disagreement he thinks warrant Presidential review.

I think there are some changes that might be made in this process, but essentially, this procedural matter is of relatively modest importance. The Budget Bureau can effectively dig into and review what the President wants it to review under this procedure or many others. It can raise questions of budgetary priorities—questioning, for exam-

ple, the worth of building forces against a particular set of contingencies on grounds of higher priority domestic needs—when and only when the President feels that he can effectively question military judgment on those grounds.

The fact is that we are dealing primarily with the problem of public attitudes, public understanding and with the need to generate informed discussion. With this in mind, let me suggest a few tentative proposals for improving public understanding and putting the military budget in a priority framework.

The proposals I have in mind are addressed primarily to the Congress.

As you know, each year for the last 8 years the Secretary of Defense has submitted to the Congress an annual posture statement. This statement contains a wealth of information and analysis, and lays out most of the basic assumptions and concepts on which the military budget request is based. But, as I pointed out earlier, one of the most fundamental determinants of the military budget, particularly the general purpose forces, is the set of overseas commitments in which we have undertaken to defend other nations. Yet the Secretary of State submits no annual posture statement covering his area of responsibility and concern. Because of this lack of a State Department posture statement, the Defense posture statement each year has devoted its lengthy opening sections to a review of the foreign policy situation.

RECOMMENDATION 1

The Secretary of State should submit to the Congress each year a posture statement. This statement should, at a minimum, outline the overseas commitments of the United States, review their contribution or lack of contribution to the Nation's vital interests, indicate how these commitments are being affected and are likely to be affected by developments in the international situation, and relate these commitments and interests to the military posture of the United States.

The Defense posture statement itself could be much more useful to the Congress and the Nation if two important sets of additional information were supplied:

RECOMMENDATION 2

The Defense posture statement should incorporate a 5-year projection of the future expenditure consequences of current and proposed military force levels, weapons procurement, and so forth. This need not, and should not, be an attempt to forecast future decisions. But it should contain, in effect, the 5-year budgetary consequences of past decisions and of those proposed in the current budget request. And not only should this sum be given in total, but it should be broken into meaningful components.

One of the major problems in priority analysis is the fact that the first year's expenditures on the procurement of new weapons systems is very small. Hence it is quite possible in any one year for the Congress

to authorize and appropriate, in sum, a relative small amount for several new systems which, 2 to 5 years in the future, use up a very large amount of budgetary resources.

All sorts of technical details need to be worked out if this proposal is to be useful. But with a little goodwill on both sides, these questions could be ironed out.

RECOMMENDATION 3

The Defense posture statement should include more cost data on relevant components of forces and weapons systems. What is the annual cost of the forces we maintain in peacetime against the contingency of a Chinese attack in Southeast Asia? What is the systems cost of constructing and operating a naval attack carrier task force? What is the cost of buying and maintaining one tactical airwing? What is the annual cost of operating each of the Navy's eight anti-submarine warfare carriers? These are precisely the kinds of information needed to make possible a rational and responsible debate about the military budget in the context of national priorities.

Given this information, it seems to me that the Congress could organize itself to use it effectively. To that end, very tentatively I would suggest the recommendation which follows.

RECOMMENDATION 4

An appropriate institution should be created within the Congress to review and analyze the two posture statements in the context of broad national priorities, and an annual report on the two statements should be issued by the Congress.

I use the peculiar terms "an appropriate institution" because I am not familiar enough with either congressional practices or congressional politics to specify its title more closely. Whether this institution should be a new joint committee, an existing joint committee, a select committee, an ad hoc merging of several committees, or some other form, I do not know. But I can specify what I believe should be the characteristics of such an institution:

It should review the basic factors on which the military budget is based, in the context of a long-term projection of budgetary resources and national priorities.

It should have, as one part of its membership, Senators and Congressmen chiefly concerned with domestic affairs, to assert the claims of domestic needs.

It should not concern itself primarily with the technical details of weapons systems, procurement practices, and the like; while these are very important, they are the province of other committees. It is the "national priorities" aspect of the military budget which should be the essence of the new institution's charter.

Above all, it should have a topflight, highly qualified staff. The matters involved do require final solution by the judgment of political leaders, but in the complex areas with which the new institution

would deal, its deliberations must be supported by outstanding, full-time professional staff work.

The institution I have described would have no legislative responsibilities. But I do not believe that makes it any less important. After all, the Joint Economic Committee has no legislative mandate. Yet in the past 22 years, its activities have immeasurably increased the quality and sophistication of public debate and of congressional actions on matters of economic affairs and fiscal policy. Should an institution such as I have described be created, I would only hope that 22 years from now it could look back on an equally productive life.

(Complete prepared statement of Mr. Schultze follows:)

PREPARED STATEMENT OF CHARLES L. SCHULTZE*

Mr. Chairman, members of the subcommittee: The subcommittee's decision to hold hearings on the military budget and national economic priorities is not only welcome but timely. Over the next several years, the Executive and the Congress will be faced with a series of basic decisions on military programs and weapons systems, whose outcome will largely determine not only the nation's security and its military posture, but also the resources available to meet urgent domestic needs. It would be most unfortunate if those decisions were made piecemeal, without reference to their effect on non-military goals and priorities. Moreover, any one year's decisions on military programs—and, in fact, on many elements of the civilian budget—cast long, and usually wedge-shaped shadows into the future. Their cost in the initial budget year is often only a small fraction of the costs incurred in succeeding years.

For these reasons there are two major prerequisites to inform discussion and decision about military budgets:

First, the benefits and costs of proposed military programs cannot be viewed in isolation. They must be related to and measured against those other national priorities, which, in the context of limited resources, their adoption must necessarily sacrifice.

Second, the analysis of priorities must be placed in a longer-term context than the annual budget, since annual decisions—particularly with respect to large military forces or weapons systems—usually involve the use of scarce national resources, and therefore affect other national priorities, well into the future.

I might also add, parenthetically, that a review of military budgets in the context of a long-run evaluation of national priorities can directly serve the interests of national security itself. In the past year there has sprung up a widespread skepticism about the need, effectiveness, and efficiency of many components of the defense budget. This is a healthy development. But it must be harnessed and focused. In particular it must not be allowed to become a "knee-jerk" reaction, such that any proposed new military program is automatically attacked as unneeded or ineffective. We still live in a dangerous world. Effective and efficient provisions for the national security should rightfully be given a high priority. I believe that a proper balancing of military and civilian programs can best be achieved by a careful and *explicit* public discussion and evaluation of relative priorities in a long-term budgetary context. Neither the extreme which automatically stamps approval on anything carrying the national security label, nor its opposite which views any and all military spending as an unwarranted waste of national resources, has much to recommend it as a responsible attitude.

In this context I should like to discuss with the Committee three major aspects of the problem of national priorities:

*NOTE.—The views expressed in this paper are those of the author and do not necessarily represent the views of the trustees, the officers, or other staff members of The Brookings Institution.

A five-year summary projection of federal budgetary resources and the major claims on those resources.

A more detailed examination of the basic factors which are likely to determine the military component of those budget claims.

Finally, some tentative suggestions for improving the process by which defense budget decisions are made, designed particularly to bring into play an explicit consideration and balancing of national priorities, both military and civilian.

I. THE BUDGETARY FRAMEWORK

By definition, the concept of "priorities" involves the problem of choice. If, as a nation, we could have everything we wanted, if there were no constraints on achieving our goals, the problems of priorities would not arise. But once we recognize that we face limits or constraints, that we cannot simultaneously satisfy all the legitimate objectives which we might set for ourselves, then the necessity for *choice* arises.

There are various kinds of constraints. There is probably some limit to the public "energy" of a nation. Psychologically, the nation and its leaders cannot enthusiastically pursue a very large number of energy-consuming goals at the same time. The psychic cost is too high. Sometimes we face limits imposed by the scarcity of very specific resources. What we can do quickly, for example, to improve the availability of high quality medical care is limited in the short run by the scarcity of trained medical personnel. But the most pervasive limit to the achievement of our goals, even in a wealthy country like the United States, is the general availability of productive resources. If the economy is producing at full employment, additions to public spending require subtractions from private spending—and vice-versa.

From the point of view of public spending, the practical constraints we face are even tighter than this. I think it is a safe political prediction that during the next five years or so, and particularly once a settlement in Vietnam is reached, federal tax rates are unlikely to be raised. Reforms may and should, occur. But the overall yield of the system is unlikely to be increased. If this judgment is correct, then the limits of budgetary resources available are given by the revenue yield of the existing tax system—a yield which will, of course, grow as the economy grows. And even those who believe that the needs of the public sector are so urgent as to warrant an increase in federal tax rates are likely to agree that an examination of long-term budgetary prospects should at least start with a projection of revenue yields under current tax laws.

Assuming for purposes of projection an initial constraint imposed by existing tax laws, it is then possible to determine roughly how large the budgetary resources available to the nation will be over the next five years, for expanding existing high-priority public programs, for creating new ones, for sharing revenues with the states or for reducing federal taxes. The magnitude of the budgetary resources available for these purposes—the "fiscal dividend"—will depend on *four basic factors*:

1. The growth in Federal revenues yielded by a *growing economy*;
2. The budgetary savings which could be realized from a *ceasefire and troop withdrawal in Vietnam*;

(These two factors, of course, *add* to fiscal dividend available for the purposes listed above. The next two *reduce* the fiscal dividend.)

3. The "built-in" or "automatic" increase in *civilian expenditures* which accompanies growing population and income. (This expenditure growth must be deducted before arriving at the net budgetary resources available for discretionary use.)

4. The probable increase in non-Vietnam military expenditures implicit in currently approved military programs and postures. (This increase must also be deducted in reaching the net fiscal dividend which can be devoted to domestic needs. Needless to say, of course, changes in military programs, policies, and force levels can affect this total.)

The net result of these four factors—the revenue yield from economic growth, the savings from a Vietnam ceasefire, the built-in growth of civilian expenditures, and the probable growth of the non-Vietnam military budget—measures the fiscal dividend available for meeting domestic needs.

Let me summarize the likely magnitude of each of these four budgetary elements five years from now. More precisely, I will attempt to project them from fiscal 1969 to fiscal 1974.

If we assume that economic growth continues at a healthy but not excessive pace, and that—optimistically perhaps—the annual rate of inflation is gradually scaled down from the current 4½ percent to a more tolerable 2 percent, *Federal revenues should grow each year by \$15 to \$18 billion*. This is, of course, a cumulative growth, so that by the end of five years federal revenues should be about \$85 billion higher than they are now. It is highly likely, however, that once the war in Vietnam is over, or substantially scaled down, the present 10 percent surcharge will be allowed to expire. The yield of the surcharge five years from now would be some \$15 billion. This must therefore be subtracted from the \$85 billion revenue increase, leaving a net \$70 billion growth in federal revenue between now and fiscal 1974.

A second potential addition to budgetary resources is the expenditure saving which could be realized upon a *Vietnam ceasefire and troop withdrawal* and a return to the pre-Vietnam level of armed forces. The current budget estimates the cost of U.S. military operations in Vietnam at about \$26 billion. As I have pointed out elsewhere, however, this figure overstates somewhat the *additional* costs we are incurring in Vietnam. Even if our naval task forces were not deployed in the Gulf of Tonkin, they would be steaming on practice missions somewhere else. Hence some of the costs of those forces would be incurred even in the absence of fighting in Vietnam. Similarly our B-52 squadrons, if not engaged in bombing missions, would be operating on training exercises. And the same is true for other activities. As best I can judge, the truly incremental, or additional, costs of Vietnam—which would disappear if a ceasefire and a return to pre-Vietnam force levels occurred—amount to about \$20 billion. These savings would not, of course, be available the day after a ceasefire occurred, but would gradually be realized as withdrawal and demobilization occurred.

With perhaps 18 months to two years after a ceasefire, this \$20 billion in budgetary savings would be available to add to the \$70 billion net growth in budget revenues—a total gross addition of \$90 billion to resources available for other public purposes.

From this \$90 billion, we must, however, make several deductions before arriving at a net fiscal dividend freely available for domestic use.

We can expect a fairly significant built-in growth in federal civilian expenditures over the next five years. As the GI's come home from Vietnam, educational expenditures under the GI bill of rights will naturally increase. Even if interest rates rise no further, the roll-over of older debt into new issues will increase interest payments. Expenditures under the Medicaid program will rise, although at a slower pace than in the last few years. A larger population and income almost automatically lead to higher public expenditures in many areas: more people visit national parks and the Park Service's outlays grow: more tax returns are filed and the Internal Revenue Service must expand to handle them: as airplane travel increases, federal expenditures on air traffic safety and control rise: and so on down the list. Social security benefits will almost certainly rise sharply if past practice is followed under which the Congress tends to raise benefit levels more or less in line with payroll revenues. For all of these reasons, I believe one must allow for a "built-in" growth of federal expenditures by some \$35 billion over the next five years. Subtracting this \$35 billion from the \$90 billion additional resources calculated above leaves \$55 billion for the fiscal dividend.

But yet another deduction must be made. Barring major change in defense policies, military spending for *non-Vietnam* purposes will surely rise significantly over the next five years. There are *five* major factors working towards an increase in military expenditures.

1. *Military and civilian pay increases*. There are now 3½ million men in the Armed Forces. In addition some 1.3 million civilian employees, about 45 percent of the federal total, work for the Department of Defense. As wages and salaries in the private sector of the economy rise, the pay scales of these military and civilian employees of the Defense Department must also be raised. The military

and civilian pay raise scheduled for this coming July 1 will add some \$2.3 billion to the Defense budget. If we assume, conservatively, that in succeeding years private wage and salary increases average 4 to 4½ percent per year, the payroll costs of the Pentagon will rise by about \$1½ billion each year.

2. *The future expenditure consequences of already approved weapons systems.* A large number of new and complex weapons systems have been approved as part of our defense posture; the bulk of the spending on which has not yet occurred.¹ Some major examples are:

The Minuteman III missile, with MIRV's; cost, \$4½ billion.

The Poseidon missile, with MIRV's; cost, including conversion of 31 Polaris subs, \$5½-\$6½ billion.

The Safeguard ABM system, with a currently estimated cost, including nuclear warheads, of some \$8 billion, plus hundreds of millions per year in operating costs.

The F-14 Navy fighter plane in three versions; the 1970 posture statement indicates that the entire F-4 force of the Navy and Marine Corps may be replaced by the F-14. If so, the total investment and operational cost of this system over a 10-year period should be well in excess of \$20 billion.

A new F-15 air-to-air combat fighter for the Air Force.

Three nuclear attack carriers at a currently estimated cost of \$525-\$540 million each.

62 new naval escort vessels, at an investment cost of nearly \$5 billion.

A number of new amphibious assault ships.

A new Navy anti-submarine plane, the V SX, at a cost of \$2-\$2½ billion.

A new continental air-defense system, including a complex "lookdown" radar and an extensive modification program for the current F-106 interceptor.

These do not exhaust the list of new weapon systems already a part of the approved defense posture. But they do give some idea of the magnitude of the expenditures involved.

3. *Cost escalation.* The weapons systems costs given for each of the systems listed above represent current estimates. But, as this Committee is well aware, past experience indicates that final costs of complex military hardware systems almost always exceed original estimates.

A study of missile systems in the 1950's and early 1960's revealed that the average unit cost of missiles was 3.2 times the original estimates.

The nuclear carrier Nimitz, now under construction, was estimated in 1967 to cost \$440 million. One year later the estimate was raised to \$536 million. No new estimates have been released but given the rapidly rising cost of shipbuilding, it is almost certain that this latter figure will be exceeded.

In January 1968 the Defense Department proposed a plan for building 68 naval escort vessels at a total cost of \$3 billion. In January 1969 the estimated costs of that program had risen to \$5 billion.

The cost of modernizing the carrier Midway was originally given as \$88 million, and the work was scheduled to be completed in 24 months. In January 1969 the cost estimate was double, to \$178 million, and the time estimate also doubled, to 48 months.

The Air Force's manned orbiting laboratory (the MOL) was originally announced by President Johnson at a cost of \$1.5 billion. The latest estimate was \$3 billion.

In many cases the rising unit costs of these systems forces reevaluation of the program and a reduction in the number purchased. The F-111 program is a classic case in point. Consequently the *aggregate* costs of the procurement budget do not rise by the same percentage as the inflation in *unit* costs. Nevertheless, cost escalation does tend to drive the total military budget upward.

4. *Weapons systems under development, advocated by the Joint Chiefs of Staff, but not yet approved for deployment.* In addition to weapons systems already ap-

¹ For most of the systems listed below, the decision to procure the item has already been made. In a few cases, such as the Navy's V SX antisubmarine plane, procurement has not yet been approved, but development is well along, and official statements of Defense Department officials have already indicated that the system is most likely to be approved.

proved, there are a large number of systems, currently under development, which are being advocated for deployment by the Joint Chiefs. Among these items are:

The AMSA—advanced manned strategic aircraft—a supersonic intercontinental bomber designed as a follow-on to the B-52. President Johnson's proposed 1970 budget requested \$77 million for advanced development. Secretary Laird proposed an additional \$23 million to shorten design time and start full-scale engineering development. This \$10 million will be supplemented by \$35 million of carryover funds. The investment costs of the AMSA, if procurement decision is made, are difficult to estimate, but it is hard to see how they could be less than \$10 billion.

The new main battle tank is now in production engineering. Depending on the number purchased, a procurement decision will involve investment costs of \$1 to \$1½ billion.

A new advanced strategic missile in super-hard silos is being advocated by the Air Force.

A new attack aircraft, the AX, is under development for the Air Force.

The Navy is proposing a major shipbuilding and reconversion program to replace or modernize large numbers of its older vessels.

A new continental air defense interceptor, the F-12, is being advocated by the Air Force.

A new underwater strategic missile systems (the ULMS) is under development for the Navy.

In the normal course of events, not all of these new systems will be adopted in the next five years. But, in the normal course of events, some will be.

5. *Mutual escalation of the strategic arms race.* The United States is currently planning to equip its Minuteman III and Poseidon missiles with multiple independently targeted reentry vehicles (MIRV's). MIRV testing has been underway for some time. The original purpose of MIRV's was as a hedge against the development of a large-scale Soviet ABM system, in order to preserve our second-strike retaliatory capability in the face of such Soviet development. Recently, however, Pentagon officials have indicated that we are designing into our MIRV's the accuracy needed to destroy enemy missile sites—an accuracy much greater than needed to preserve the city-destroying capability of a retaliatory force. Secretary of Defense Laird, in recent testimony before the Armed Services Committee, for example, asked for additional funds to "improve significantly the accuracy of the Poseidon missile, thus enhancing its effectiveness against hard targets."

Putting MIRV's with hard-target killing capabilities on Poseidon alone will equip the U.S. strategic forces with 4,000-5,000 missile-destroying warheads. Viewed from Soviet eyes the United States appears to be acquiring the capability of knocking out Soviet land-based missile force in a first strike. It might be argued that the difficulties of attaining a hard-target killing capability on our MIRV's are so great that the objective will not be realized for many years, if ever. But without attempting to evaluate this observation, let me point out that what counts in the arms race is the Soviet reactions to our announcements. And, like our own conservative planners, the Soviets must assume that we will attain our objectives.

The United States has announced that in answer to the 200-Soviet 22-9's—which may be expanded and MIRV'd into 800 to 1,000 hard-target warheads—it will build an ABM system. What must the Soviet reaction be when faced with the potential of 4,000-5,000 hard-target killers on Poseidon alone? As they respond—perhaps with an even larger submarine missile force than now planned, or by developing mobile land-based missiles—we may be forced into still another round of strategic arms building. This may not occur. But its likelihood should not be completely discounted.

I have seen several arguments as to why a new round in the strategic arms race will not be touched off by current U.S. policy. I think they are dubious at best. One argument notes that the U.S. development of MIRV's and ABM is being made against a "greater-than-expected" threat—i.e., a Soviet threat larger than current intelligence estimates project. Hence, runs the argument, should the Soviets respond to our new developments, this response has already been taken into account in the "greater-than-expected" threat against which we are cur-

rently building. Consequently, we would not have to respond ourselves with a still further strategic arms buildup. But this misses the very nature of "greater-than-expected" threat planning. Once the Soviets proceed to deploy a force which approaches the *current* "greater-than-expected" threat, then by definition a *new* "greater-than-expected" threat is generated, and additional strategic arms expenditures are undertaken to meet it. This is the heart of the dynamics of a strategic arms race.

Another argument is often used to discount the mutual escalation threat posed by MIRV's. Multiple warheads, it is argued, make an effective large area ABM practically impossible to attain. Hence, deployment of MIRV's destroys the rationale for a large-scale, city defense, ABM. So long as MIRV's do not have the accuracy to destroy enemy missiles on the ground, this argument might indeed have some validity. But once they acquire hard-target killing capability—or the Soviets think they have such capability—they are no longer simply a means of penetrating ABM's and preserving the second-strike retaliatory force; they provide, in the eyes of the enemy, a first-strike capability, against which he must respond.

Given these various factors tending to drive up the cost of the non-Vietnam components of the military budget, by how much are annual defense expenditures, outside of Vietnam, likely to rise over the next five years? Obviously, there is no pat answer to this question. Any projection must be highly tentative. But assuming the increase in civilian and military pay mentioned earlier, calculating the annual costs of the approved weapons systems listed above, and allowing for only modest cost escalation in individual systems, it seems likely that on these three grounds alone non-Vietnam military expenditures by 1974 will be almost \$20 billion higher than they are in fiscal 1969. They will, in other words, almost fully absorb the savings realizable from a cessation of hostilities in Vietnam. And this calculation leaves *out* of account the possibility of more than modest cost escalation, the adoption of large new systems like the AMSA, and a further round of strategic arms escalation.

I might note that the 1970 defense budget—even after the reductions announced by Secretary Laird—already incorporates the first round of this increase. From fiscal 1969 to fiscal 1970, the *non-Vietnam* part of the defense budget will rise by \$5½ to \$6 billion, after allocating to it the Pentagon's share of the forthcoming military and civilian pay raise. In one year, almost 30 percent of this \$20 billion rise will apparently take place.

Starting out with an additional \$70 billion in federal revenues over the next five years, plus a \$20 billion saving from a ceasefire in Vietnam, we earlier calculated a \$90 billion gross increase in federal budgetary resources. From this we subtracted the \$35 billion growth of "built-in" civilian expenditures and now we must further subtract a \$20 billion rise in non-Vietnam military outlays, leaving a net fiscal dividend in fiscal 1974 of something in the order of \$35 billion, available for discretionary use in meeting high priority public needs or additional tax cuts. That \$35 billion, in turn, is itself subject to further reduction should major new weapons systems be approved, or should another round in the strategic arms race take place.

Let me make it clear, of course, that there is nothing inevitable about this projection of military expenditures. Some of the weapons systems I listed are in early stages of procurement. Other areas in the military budget can be analyzed, reviewed, and if warranted, reduced as a budgetary offset to the new systems. Hopefully, disarmament negotiations if held quickly, may prevent mutual strategic escalation. My projection assumes that no changes in basic policies, postures, and force levels occur. It is obviously the whole purpose of these hearings to examine that assumption, in the context of other national priorities.

II. THE BASIC FACTORS BEHIND RISING MILITARY BUDGETS

While the budget projection summarized above discusses some of the specific weapons systems which are likely to cause the defense budget to expand sharply in the next five years, it does not address itself to the underlying forces which threaten to produce this outcome. In the first half of the 1960's the military

budget ran at about \$50 billion per year. With those funds not only were U.S. strategic and conventional forces maintained, they were sharply improved in both quantity and quality. Both land- and sea-based missile forces were rapidly increased. Similarly dramatic increases in the general purpose forces were undertaken. Fourteen Army divisions, undermanned, trained primarily for tactical nuclear war, and short of combat consumables were expanded to over 16½ divisions, most of them fully manned. Equipment and logistic supply lines were sharply increased. The 16 tactical air wings were expanded to 21. Sea-lift and air-lift capability were radically improved.

In short, on \$50 billion per year in the early 1960's, it appeared to be possible to buy not only the maintenance of a given military capability, but a sharp increase in that capability. By the early 1970's, taking into account general price inflation in the economy plus military and civilian pay increases, it would take \$63-\$65 billion to maintain the same purchasing power as \$50 billion in 1965. Yet, as I have indicated earlier, even on conservative assumptions the non-Vietnam military budget is likely to approach \$80 billion by fiscal 1974—\$15 to \$17 billion more than the amount needed to duplicate the general purchasing power the pre-Vietnam budget had—a budget which already was providing significant increases in military strength. Why this escalation? What forces are at work?

While there are a number of reasons for this increase, I would suggest that four are particularly important.

First, the impact of modern technology on the strategic nuclear forces. During most of the 1960's the primary goal of our strategic nuclear forces was the preservation of an "assured destruction capacity"—the ability to absorb an enemy's first strike and retaliate devastatingly on his homeland. In turn this capability provided nuclear deterrence against a potential aggressor. In general this could be described as a stable situation, in part because of the technology involved. To mount a first strike, an aggressor would have to be assured that he could knock out all—or substantially all—of his opponent's missiles. Since missiles did not have 100 percent reliability and accuracy for this task, more than one attacking missile would have to be targeted on the enemy missile force. For every missile added by the "defender," the attacker would have to add more than one. Hence, it was easy to show that first-strike capability could not be attained, since the opposing side could counter and maintain his second-strike capability at a less-than-equal cost. And, of course, the existence of mobile submarine launched missiles made the stability of the system even greater.

But the development of MIRV's, and more critically the development of guidance systems which are designed to make them accurate enough to "kill" enemy missiles on the ground, changes this balance. Now a single attacking missile, with multiple warheads, can theoretically take out several enemy missiles. The advantage to the first attacker rises sharply. Strategic planners on both sides, projecting these developments into the future, react sharply in terms of the danger they perceive their own forces to be facing. Add to this the development of ABM, which—however initially deployed—raises fears in the minds of enemy planners that it can be extended to protect cities against his submarine launched missiles, and escalation of the strategic arms race becomes increasingly likely.

The impact of changing technology on strategic arms budgets, therefore, is one of the driving forces which changes the prospects of post-Vietnam military expenditures from what they might have seemed several years ago.

The second major factor in driving arms budgets up is the propensity of military planners to prepare against almost every conceivable contingency or risk. And this applies both to force level planning and to the design of individual weapons systems. Forces are built to cover possible, but very remote, contingencies. Individual weapons systems are crowded with electronic equipment and built with capabilities for dealing with a very wide range of possible situations, including some highly unlikely ones.

If military technology were standing still, this propensity to cover remote contingencies might lead to a large military budget, but not to a rapidly expanding one. As technology continually advances, however, two developments occur: (1) As we learn about new technology, we project it forward into the Soviet arsenal, thereby creating new potential contingencies to be covered by our own

forces; (2) The new technology raises the possibility of designing weapons systems to guard against contingencies which it had not been possible to protect against previously.

Continually advancing technology and the risk aversion of military planners, therefore, combine to produce ever more complex and expensive weapons systems and ever more contingencies to guard against.

Let me give some examples.

According to Dr. John S. Foster Jr., Deputy Director of Defense Research and Engineering in testimony before the Senate Armed Services Committee last year, the Poseidon missile system was originally designed to penetrate the Soviet TALLINN system—a system originally thought to be a widespread ABM defense. When this system turned out to be an anti-aircraft system, the deployment decision on the Poseidon was not revised. Rather it was continued as a hedge against a number of other possible Soviet developments, including in Dr. Foster's words the possibility that "the Minuteman force could be threatened by either rapid deployment of the current Soviet SS-9 or by MIRV'ing their existing missiles and improving accuracy."

Once the Soviets began to deploy the SS-9 in apparently larger numbers than earlier estimated, however, this gave rise to the decision to deploy a "Safeguard" ABM defense of Minutemen sites.

In short the sequence went like this: (1) The Poseidon deployment decision was made against a threat which never materialized; (2) despite the disappearance of the threat against which it was designed, the Poseidon was continued, presumably as a hedge against other potential threats, including faster-than expected Soviet deployment of the SS-9; (3) but now a decision has been made to hedge against the SS-9 by building a "hard-point" ABM—so we are presumably building the Poseidon as hedge against a number of possible Soviet threats, including the SS-9, and then building a hedge on top of that; (4) finally, new technology has made it possible to design a hard target killing accuracy into the Poseidon—an accuracy not needed to preserve our second strike capability against either the SS-9 or a Soviet ABM. The technology is available—why not use it! Yet the existence of that capability may well force a major Soviet response.

Another example of hedging against remote threats is the currently planned program of improvements in our continental air defense system. The existing SAGE system cost \$18 billion to install but is apparently not very effective against low-altitude bomber attack. Although the Soviets have no sizable inter-continental bomber threat, the decision has been made to go ahead with major investments in a new air defense system. The major reasons given for this decision are these: to deter the Soviets from deciding to reverse their long-standing policy and develop a new bomber; to guard against one-way Kamikaze-type attacks by Soviet medium-range bombers; and to protect those of our missiles which would be withheld in a retaliatory strike. There is admittedly no direct threat to be covered. But a number of more remote threats are covered. And since we cannot defend our cities against Soviet missiles, it gives small comfort to have them protected against as yet non-existing bombers or Kamikaze attacks.

Another case in point is the new F-14 Navy aircraft. Both the F-111B and its successor, the initial version of the F-14, were designed to stand off from the carrier fleet and, with the complex Phoenix air-to-air missile, defend the fleet from a Soviet supersonic bomber plus missile threat, in the context of a major Soviet attack against our carrier forces. But as the Senate Defense Preparedness Subcommittee noted last year, this threat is "either limited or does not exist." Or as Chairman Mahon of the House Appropriations Committee noted, "The bomber threat against the fleet, as you know, has been predicted by Navy officials for some time. It has not, of course, developed to date."

The problem of what contingencies and risks are to be guarded against goes to the very heart of priority analysis. Primarily what we buy in the military budget is an attempt to protect the nation and its vital interests abroad from the danger and risks posed by hostile forces. We seek either to deter the hostile force from ever undertaking the particular action or if worst comes to worst, to ward off the action when it does occur. Similarly, in designing particular weapons systems, the degree of complexity and the performance requirements built into the systems depend in part on an evaluation of the various kinds of contin-

gencies which the weapon is expected to face. Now there are almost an unlimited number of "threats" which can be conceived. The likelihood of their occurrence, however, ranges from a significant possibility to a very remote contingency. Moreover, the size of the forces and complexity of the weapons systems needed to guard against a particular set of threats depends upon whether the threats materialize simultaneously or not. If they do not occur simultaneously, then very often forces developed to meet one contingency can be deployed against another. But the probability of two or more remote contingencies occurring simultaneously is obviously even lower than either taken separately.

Clearly we cannot prepare against every conceivable contingency. Even with a defense budget twice the present \$80 billion, we could not do that. The real question of priorities involves the balance to be struck between attempting to buy protection against the more remote contingencies and using those funds for domestic purposes. In any given case, this is not a judgment which can be assisted by drawing up dogmatic rules in advance. And, since it is a question of balancing priorities, it is not a question which can be answered solely on military grounds or with military expertise alone—although such expertise must form an essential component of the decision process.

For what it is worth, it is my own judgment that we generally have tended in the postwar period to tip the balance too strongly in favor of spending large sums in attempting to cover a wide range of remote contingencies. And, as I have pointed out, this tendency—combined with the relentless ability of modern technology to create new contingencies and new systems to combat them—threatens to produce sizable increases in the defense budget.

A third important factor which is responsible for driving up the size of defense budgets is "modernization inflation."² The weapons systems we now buy are vastly more costly than those we bought 10 or 20 years ago. The F-111A and the F-14A, for example, will cost 10 to 20 times what a tactical aircraft cost at the time of Korea. A small part of this increase is due to general inflation. But by far the largest part is due to the growing complexity and advanced performance of the weapons. In the case of tactical aircraft, speed, range, bomb load, accuracy of fire, loiter time, ability to locate targets, and other characteristics are many times greater than models one or two decades older. The same kinds of performance comparison can be drawn between modern missile destroyers and their older counterparts, and between modern carriers and their predecessors. We pay sharply increased costs to obtain sharply increased performance. Yet seldom if ever is this advance in "quality" used to justify a reduction in the number of planes or carriers or destroyers or tanks. If bomb carrying capacity and lethal effectiveness is doubled or tripled, then presumably a smaller number of new planes can do the same job as a larger number of old planes. But the numbers generally stay the same or increase. As a consequence, modernization inflation primarily causes a net increase in military budgets rather than providing—at least partially—a reasoned basis for maintaining military effectiveness while reducing the level of forces.

In some cases, of course—for example, Soviet fighter aircraft—rising enemy capabilities may reduce the possibility of substituting quality for quantity. But the same kind of argument is hard to adduce for such weapons as carriers or attack bombers.

The fourth, and perhaps most important, reason for increasing military budgets is the fact that some of the most fundamental decisions which determine the size of these budgets are seldom subjected to outside review and only occasionally discussed and debated in the public arena. This problem is most acute in the case of the budget for the nation's general purpose forces. The fundamental assumptions and objectives of the strategic nuclear forces are more generally known and debated. But the assumptions, objectives and concepts underlying the general purpose forces—which even in peacetime take up 60 percent of the defense budget—are scarcely known and discussed by the Congress and the public. Congress does examine and debate the wisdom and effectiveness of particular weapons systems—the TFX, the C-5A, etc. But choices of weapons systems form only a part of the complex of decisions which determine the budget for our general purpose forces.

² This is the term used by Malcolm Hoag.

Those decisions can conveniently be classified into four types:

1. What are the nation's *commitments* around the world? While our strategic nuclear forces are primarily designed to deter a direct attack on the United States, our general purpose forces have their primary justification in terms of protecting U.S. interests in other parts of the world. At the present time, we have commitments of one kind or another, to help defend some 40-odd nations around the world—19 of them on the periphery of the Soviet-Eastern European bloc and Communist China. Almost all of these commitments were made quite some time ago, but they are still in force. Unless we wish to rely solely on "massive retaliation" as a means of fulfilling our commitments, they do pose a fundamental "raison d'etre" for general purpose forces of some size.

2. Granted the existence of these commitments, against what sort of *contingencies or threats* do we build our peacetime forces? A number of examples will help illustrate this aspect of decision making:

Pre-Vietnam (and, barring changes in policy, presumably *post*-Vietnam), our general purpose forces were built to fight *simultaneously* a NATO war, a Red Chinese attack in S.E. Asia, and to handle a minor problem in the Western Hemisphere, a' la' the Dominican Republic. Obviously the forces-in-being would not be sufficient, without further mobilization, to complete each of these tasks. But they were planned to handle simultaneously all of the three threats long enough to enable mobilization to take place if that should prove necessary.

The Navy is designed, among other tasks, to be capable of handling an all-out, non-nuclear, protracted war at sea with the Soviet Union.

The incremental costs of maintaining in-being a force to meet the Chinese attack contingency, probably amounts to about \$5 billion per year. When in 1965 the nation decided to begin Federal aid to elementary and secondary education—which has subsequently been budgeted at less than \$2 billion a year—a major national debate took place. To the best of my knowledge, there was no public comment or debate about the "Chinese contingency" decision. Yet the decision was not classified—it was publicly stated in the unclassified version of the Secretary of Defense's annual posture statement several years running. This is not to say that the decision was necessarily wrong. Rather, I want to stress that it has a very major impact on the defense budget, yet was not, so far as I know, debated or discussed by the Congress. This lack of debate cannot be laid at the door of the Pentagon, since the information was made available in the defense posture statement.

3. Granted the commitments and contingencies, what *force levels* are needed to meet those contingencies, and how are they to be based and deployed?

The Navy, for example, has 15 attack carrier task forces. The carrier forces are designed not merely to provide quick response, surge capability for air power, but to remain continually on station during a conflict. As a consequence, because of rotation, overhaul, crew-leave, and other considerations, one carrier on station generally requires two off-station as back-up. Thus for *five* carriers on station, we have *ten* back-up carriers. (The "on-station" to "back-up" ratio depends on the distance of the station from the carriers' base. The 2/1 is an average ratio.)

The pre-Vietnam Army comprised 16½ active divisions with eight ready reserve divisions. The 16½ division force is supported by a planned 23 tactical air wing (only 21 were in-being pre-Vietnam).

The Navy has eight anti-submarine carrier task forces.

Defense plans call for a fast amphibious assault capability, sufficient to land one division/air wing in the Pacific and ¾ division/air wing in the Atlantic.

The force levels needed to meet our contingencies are, of course, significantly affected by the military decisions and capabilities of our allies. The U.S. situation in NATO, for example, is strongly affected by whether or not the divisions of our NATO allies are equipped with the combat consumables and rapid fire-power weapons enabling them to conduct a prolonged conventional war.

4. With what *weapons systems* should the forces be equipped? Such questions as nuclear versus conventional power for carrier and carrier escorts, the F-111B versus the F-14, the extent to which the F-14 replaces all the Navy's F-4's, must, of course, be decided.

Let me hasten to point out that there is no *inexorable logic* tying one set of decisions in this litany to another. Do not think that once a decision has been made on commitments that the appropriate contingencies we must prepare against are obvious and need no outside review; or that once we have stipulated the contingencies that the necessary force levels are automatically determined and can be left solely to the military for decision; or that once force levels are given, decisions about appropriate weapons systems can be dismissed as self-evident. There is a great deal of slippage and room for judgment and priority debate in the connection between any two steps in the process.

Some examples might help:

There is no magic relationship between the decision to build for a "2½ war" contingency (NATO war, Red Chinese attack, and Western Hemisphere trouble) and the fact that the Navy has 15 attack carrier task forces. In the Washington Naval Disarmament Treaty of 1921, the U.S. Navy was allotted 15 capital ships. All during the nineteen twenties and thirties, the Navy had 15 battleships. Since 1951 (with temporary exception of a few years during the Korean war) it has had 15 attack carriers, the "modern" capital ship.³ Missions and "contingencies" have changed sharply over the last 45 years. But this particular force level has not.

If one assumed, for example, that the Navy's carrier force should provide "surge" support to achieve quick air cover and tactical bombardment during an engagement, and then turned the job over to the tactical Air Force, the two-to-one ratio of back-up carriers to on-station carriers would not have to be maintained and the total force level could be reduced, even with the same contingencies. The wisdom or lack of wisdom in such a change would depend both upon a host of technical factors and upon a priority decision—does the additional "continuation" capability as opposed to "surge" capability buy advantages worth the resources devoted to it, on the order of \$300–\$400 million per year in operating and replacement costs per carrier task force.

Similar questions arise in other areas. Does the 16½ division Army peacetime force need 23 tactical air wings for support, or could it operate with the Marines' one-to-one ratio between air wings and divisions? Granted the 15 carrier task forces, must all of their F-4's be replaced by F-14's as the Navy is apparently planning.

In short there is a logical order of decisions—commitments to contingencies to force levels to weapons systems—but the links between them are by no means inflexible, and require continuing review and oversight.

As I mentioned earlier, I am impressed by the fact that the Congress tends to concentrate primarily upon debate about weapons systems to the exclusion of the other important elements of the general purpose component of the defense budget. Many of the elements involved in military budget decision making cannot, of course, be made subject to specific legislation—I find it hard to see how the Congress could, or should, legislate the particular contingencies against which the peacetime forces should be built. But the Congress is the nation's principal forum in which public debate can be focused on the basic priorities and choices facing the country. It can, if the proper information is available and the proper institutional framework created, critically but responsibly examine and debate *all* of the basic assumptions and concepts which underlie the military budget. And it can do so in the content of comparing priorities. The Congress can explicitly discuss whether the particular risks which a billion dollar force level or weapons systems proposal is designed to cover are serious enough in comparison with a billion dollars worth of resources devoted to domestic needs to warrant going ahead. By so doing, the Congress as a whole can create the kind of understanding and political climate in which its own Armed Services and Appropriations Committee, the President, his Budget Bureau, and his Secretary of Defense can effectively review and control the military budget.

This brings me to my next point. The size and rapid increase in the defense budget is often blamed on the military-industrial complex. Sometimes it is also blamed on the fact that the Budget Bureau uses different procedures in reviewing the military budget than it does in the case of other agencies.

³This observation is reported by Desmond P. Willson, *Evolution of the Attack Aircraft Carrier: A Case Study in Technology and Strategy*, Ph.D. Dissertation, M.I.T., February 1966.

The uniformed Armed Services and large defense contractors clearly exist. Of necessity, and in fact quite rightly, they have views about and interests in military budget decisions. Yet I do not believe that the "problem" of military budgets is primarily attributable to the so-called military-industrial "complex." If defense contractors were all as disinterested in enlarging sales as local transit magnates, if retired military officers all went into selling soap and TV sets instead of missiles, if the Washington offices of defense contractors all were moved to the West Coast, if all this happened and nothing else, then I do not believe the military budget would be sharply lower than it now is. Primarily we have large military budgets because the American people, in the cold war environment of the nineteen fifties and sixties, have pretty much been willing to buy anything carrying the label "Needed for National Security." The political climate has, until recently, been such that, on fundamental matters, it was exceedingly difficult to challenge military judgments, and still avoid the stigma of playing fast and loose with the national security.

This is not a reflection on military officers as such. As a group they are well above average in competence and dedication. But in the interests of a balanced view of national priorities we need to get ourselves into a position where political leaders can view the expert recommendations of the military with the same independent judgment, decent respect, and healthy skepticism that they view the budgetary recommendations of such other experts as the Commissioner of Education, Surgeon General, and the Federal Manpower Administration.

I think the same approach can be taken with respect to the procedures used by the Budget Bureau to review the Budget of the Defense Department. In all other cases, agency budget requests are submitted to the Bureau, which reviews the budgets and then makes its own recommendations to the President subject to appeal by the agency head to the President. In the case of the Defense budget, the staff of the Budget Bureau and the staff of the Secretary of Defense jointly review the budget requests of the individual armed services. The staff make recommendations to their respective superiors. The Secretary of Defense and the Budget Director then meet to iron out differences of view. The Secretary of Defense then submits his budget request to the President, and the Budget Director has the right of carrying to the President any remaining areas of disagreement he thinks warrant Presidential review.

Given the complexity of the Defense budget and a Secretary of Defense with a genuine interest in economy, efficiency, and effectiveness, this procedure has many advantages. It probably tends to provide the Budget Director with better information on the program issues than he gets from other Departments. I think the procedure might perhaps be strengthened if the practice were instituted of having the Budget Director and the Secretary of Defense *jointly* submit the budget recommendation to the President, noting any differences of view.

But essentially, this procedural matter is of relatively modest importance. The Budget Bureau can effectively dig into and review what the President wants it to review under this procedure or many others. It can raise questions of budgetary priorities—questioning, for example, the work of building forces against a particular set of contingencies on grounds of higher priority domestic needs—when and only when the President feels that *he* can effectively question military judgments on those grounds.

In my view therefore, the issues of the military-industrial complex, and of budget review procedures are important. But they are far less important than the basic issue of public attitudes, public understanding, and the need to generate an informed discussion about the fundamentals of the military budget in the context of national priorities.

With this in mind, let me suggest a few tentative proposals for improving public understanding and putting the military budget in a priorities framework.

III. TENTATIVE PROPOSALS FOR IMPROVING MILITARY BUDGET DECISIONS

The proposals I have in mind are addressed primarily to the Congress. As I noted earlier, many of the basic assumptions and concepts which determine the size of the military budget do not lend themselves, in the first instance, to direct legislative actions. But the Congress has another historic function—focusing public understanding and debate on important national concerns as a means of

creating the framework within which both the Congress and the President can take the necessary specific actions. It is to this second function that my proposals are addressed.

As you know, each year for the last eight years the Secretary of Defense has submitted to the Congress an annual *posture statement*. This statement contains a wealth of information and analysis, and lays out most of the basic assumptions and concepts on which the military budget request is based. But, as I pointed out earlier, one of the most fundamental determinants of the military budget, particularly the general purpose forces, is the set of overseas commitments in which we have undertaken to defend other nations. Yet the Secretary of State submits no annual posture statement covering his area of responsibility and concern. Because of this lack of a State Department posture statement, the Defense posture statement each year has devoted its lengthy opening sections to a review of the foreign policy situation.

RECOMMENDATION 1

The Secretary of State should submit to the Congress each year a posture statement. This statement should, at a minimum, outline the overseas commitments of the United States, review their contribution or lack of contribution to the nation's vital interests, indicate how these commitments are being affected and are likely to be affected by developments in the international situation, and relate these commitments and interests to the military posture of the United States.

The Defense posture statement itself could be much more useful to the Congress and the nation if two important sets of additional information were supplied:

RECOMMENDATION 2

The Defense posture statement should incorporate a five-year projection of the future expenditure consequences of current and proposed military force levels, weapons procurement, etc. This need not, and should not, be an attempt to forecast *future* decisions. But it should contain, in effect, the five-year budgetary consequences of past decisions and of those proposed in the current budget request. And not only should this sum be given in total, but it should be broken into meaningful components.

One of the major problems in priority analysis is the fact that the first year's expenditures on the procurement of new weapons systems is very small. Hence it is quite possible in any one year for the Congress to authorize and appropriate, in sum, a relatively small amount for several new systems which, two to five years in the future, use up a very large amount of budgetary resources.

All sorts of technical details need to be worked out if this proposal is to be useful. What is a "decision" about a weapons system? The Defense Department plans, for example, call for three nuclear carriers to be built. Procurement funds have been requested for only two so far. Should the cost of the third be included in the projection? But with a little goodwill on both sides, these questions could be ironed out. Let me also note, that I am aware that the Congress—relying on past experience with cost escalation—may want to increase the official projections of many weapons systems costs in order to get a more accurate idea of the overall total.

RECOMMENDATION 3

The Defense posture statement should include more cost data on relevant components of forces and weapons systems. What is the annual cost of the forces we maintain in peacetime against the contingency of a Chinese attack in South East Asia? What is the systems cost of constructing and operating a naval attack carrier task force? What is the cost of buying and maintaining one tactical airwing? What is the annual cost of operating each of the navy's eight anti-submarine warfare carriers? These are precisely the kinds of information needed to make possible a rational and responsible debate about the military budget in the context of national priorities.

Given this information, it seems to me that the Congress could organize itself to use it effectively. To that end, very tentatively I would suggest the following recommendations:

RECOMMENDATION 4

An appropriate institution should be created within the Congress to review and analyze the two posture statements in the context of broad national priorities, and an annual report on the two statements should be issued by the Congress.

I use the peculiar terms "an appropriate institution" because I am not familiar enough with either Congressional practices or Congressional politics to specify its title more closely. Whether this institution should be a new Joint Committee, an existing Joint Committee, a Select Committee, an *ad hoc* merging of several Committees, or some other form, I do not know. But I can specify what I believe should be the characteristics of such an institution :

it should review the basic factors on which the military budget is based, in the context of a long-term projection of budgetary resources and national priorities.

it should have, as one part of its membership, Senators and Congressmen chiefly concerned with domestic affairs, to assert the claims of domestic needs.

it should not concern itself primarily with the technical details of weapons systems, procurement practices and the like ; while these are very important, they are the province of other Committees. It is the "national priorities" of the military budget which should be the essence of the new institution's charter.

above all, it should have a top flight, highly qualified staff. The matters involved do require final solution by the judgment of political leaders, but in the complex areas with which the new institution would deal, its deliberations must be supported by outstanding, full-time, professional staff work.

The institution I have described would have no legislative responsibilities. But I do not believe that makes it any less important. After all, the Joint Economic Committee has no legislative mandate. Yet in the past twenty-two years, its activities have immeasurably increased the quality and sophistication of public debate and of Congressional actions on matters of economic affairs and fiscal policy. Should an institution such as I have described be created, I would only hope that twenty-two years from now it could look back on an equally productive life.

Chairman PROXMIRE. Dr. Schultze, thank you for a superb job. This statement is one of the best statements I have heard in 12 years I have been in Congress. It is precisely on the point.

Your analysis is very sound, your recommendations would certainly give us the kind of thing I think we need most of all, which is pertinent, appropriate, relevant information, and if I could give you a standing ovation, I would.

I would just like to begin very briefly on a subject going back to your assumptions on how much we will have available.

You make some assumptions which I think you will agree are very, very rosy about having any fiscal dividend. Years ago, Walter Heller, then head of the Council of Economic Advisers, talked of the big fiscal dividend coming up and we have not seen any fiscal dividend since.

Now, you make the assumption of continued, unparalleled prosperity, at least you call it a healthy growth, which I understand assumes 4 to 5 percent. You make the assumption, No. 2, we will not engage in any other hostility like Korea or Vietnam meanwhile. You make the assumption that inflation will go down to around 2 percent. You make the assumption we will not have the cost increases that we have had in the past. And when you make the assumption more——, it seems to me we are unlikely to have much of a fiscal dividend ; in fact, we are going to have our domestic needs seriously pinched by the military unless we somehow find a way of reducing military expenditures.

I just call your attention quickly to the fact that except in periods of wartime, in the last 40 years we have had very limited economic growth. For example, take the period, 1929 to 1940, there was no economic growth at all. 1944 to 1950, right after World War II, we actually had a decline in the economic growth, that is, the GNP corrected for inflation.

In 1953 to 1963, the other peace period, the growth was only 3 percent. So, it seems to me the fiscal dividend is unlikely to be as high as you project. If it is not, then we will not have anything like the \$35 billion you propose; is that correct?

Mr. SCHULTZE. That is correct. There are two kinds of critiques you have made of the numbers. One was economic growth part, about which I worry less. My own view is that to be conservative, 4 percent average growth is not all that unlikely.

Chairman PROXMIRE. It is unprecedented in peacetime, particularly following a period of great economic growth, which we have enjoyed for 8 years.

I expect in the next 5 years, with the same kind of thing—but, go ahead.

Mr. SCHULTZE. My point is, if you look at the decade of 1960 to 1970, I am sure you will find overall the growth would have averaged somewhere near 5 percent. But as I said, being conservative and making it 4 percent, that would chop my numbers down some.

The other critique really is—I have not made room for another contingency in the sense things are likely to occur to chew up the fiscal dividend. I cannot quarrel with that. The usefulness of such a projection lies not in its accuracy but in laying out the numbers, so you can make policy around them and put your own forecast in them in a sense. So I have no particular reasons to defend the \$35 billion at all, it is simply a statement that if XYZ happens you will have \$35 billion; if you want more you have got to take certain actions.

If you do not take other actions, it is going to be a lot less than \$35 billion and it seems to me the value of that lies there, rather than the specific projection of 35, and I hold no brief for that particular one.

Chairman PROXMIRE. My only comment is I think we are likely to have a situation in which we have to make some hard, tough choices.

Mr. SCHULTZE. I fully agree.

Chairman PROXMIRE. In the military area, if we are going to be able to do the job we intend to do without inflation and reasonable tax burden on the American people.

Mr. SCHULTZE. I fully agree with you.

One of the problems with the 35, it sounds like a big number but looking 5 years out it is not a big number. If you look at it in the context of what the Nation has ahead of it, 35, even if you get it, is not a large number.

Chairman PROXMIRE. I would like to ask you, and here I think you can speak with more force than any other witness we would have.

You were the Budget Director during a very crucial period. Members of Congress I have talked to think you were a brilliant Director and you understand the relationship between the Budget Director and

the President better than anyone else available. You understand the very difficult fiscal problem the President has.

Now, you pointed out your example, some serious blunders and mistakes, which in my view at least have been made in the tendency of the military to try to plan against any conceivable contingency. For instance, they assume defense against Soviet manned bombers which is nonexistent and very remote. Let me ask you, why were the bad decisions not ferreted out as the defense budget went through the review process in White House deliberations?

Mr. SCHULTZE. I have been asking that question. Let me see if I can maybe use an example to illustrate this.

Let's take the case of the new proposed so-called AWACS system, which is a complex downward-looking radar new continental air defense system. I do not remember the specifics of it very well, but I do recall when it was proposed it was looked at carefully by the Budget Bureau and you will find that as a matter of fact when you compare various air defenses, it turns out this system is about the best you can get, as far as I can tell.

If you compare a number of alternatives, it is more effective at slightly lower cost than most. And this kind of thing the Budget Bureau did look very carefully at.

Quite frankly, however, what we did not look at so closely was, do you need an air defense system of this magnitude at all?

Chairman PROXMIRE. You did not look at it, you say?

Mr. SCHULTZE. Well, those are the—

Chairman PROXMIRE. That question was never brought out, was it?

Mr. SCHULTZE. They did not get looked at that way.

Chairman PROXMIRE. Was it not your responsibility to bring that question out?

Mr. SCHULTZE. Yes, sir; it was.

Chairman PROXMIRE. Why did you not bring it out?

Mr. SCHULTZE. I do not know. I put it to you this way, Senator: I would say up until 7 or 8 months ago, outside of Vietnam itself and outside of individual weapons systems, far too little attention was given by anybody, myself included, to fundamentals, for example, let us say, to the \$5 billion a year we spent on the Chinese contingencies. Nobody. So clearly, yes, it should have been looked at. It was not looked at carefully enough, probably.

But it seems to me the real problem has to do with general political attitudes, with respect to what it is politically possible to do and what it is not possible to do in terms of questioning basic military decisions.

Chairman PROXMIRE. Let me ask you this: you say, as I understand, regardless of the budget procedures, defense decisions will be challenged on grounds of higher priorities, domestic needs only when the President feels he can effectively question military judgment on these grounds.

Explain what you mean by, when the President feels that he can effectively question military judgment. Is there some reluctance in your opinion on the part of the President to question military judgments? I am saying "a President."

Mr. SCHULTZE. I understand that; I will answer in similar generalities.

Question military judgments, yes, but in the basic environment of the cold war and the post-war era, question military judgments to the point where the President will possibly face a major attack on grounds of undercutting the security of the United States, no.

So my phrasing in the testimony may not have been precisely accurate; technical military decisions—yes—can, were, have always been questioned.

Chairman PROXMIRE. To what extent, let me put it this way, is sound defense analysis frustrated by the influence of the Defense Department in the White House?

Mr. SCHULTZE. I do not think it is frustrated by the Defense Department in the White House any more than any other Department has a major impact on White House decisions in terms of the basic political environment in which you operate.

Chairman PROXMIRE. What you are talking about, then, is a feeling of the President he has to recognize that there are only certain things he can do like any of us humans in public office.

Mr. SCHULTZE. That is right.

Chairman PROXMIRE. One of the elements affecting it is the atmosphere in the country.

Mr. SCHULTZE. Exactly.

Chairman PROXMIRE. The deep concern with the challenge, the threat of our adversary.

Mr. SCHULTZE. For example, an analogy in another field: it seems to me that it would have been impossible to use—maybe an extreme example in the 1920's—to advocate in case of recession the kind of fiscal policy which turned out would be advocated now, a fiscal policy requiring, for example, a tax reduction or expenditure increase which would lead to a deficit. Because of the general framework and environment of public attitude I think the last 6 to 8 months have seen the major changes in this country in terms of public attitude toward defense spending.

Chairman PROXMIRE. Do you think we can make any progress by this kind of debate, this kind of hearing, and especially the kind of institutions you are suggesting in your paper?

Mr. SCHULTZE. Exactly. What I would like to do is make it politically profitable for the President.

Now, politically in the broad sense of the term, not partisan.

Chairman PROXMIRE. So we have the State Department giving us a defense posture statement each year with Congress debating it, analyzing it, considering it, and the President would be in a much better position to make these hard, tough decisions.

Mr. SCHULTZE. That is my hope and even more my judgment.

Chairman PROXMIRE. On the Soviet Union, the United States appears to be acquiring a first-strike capability. Explain the probable budgetary consequences of the United States if the Russians assume we are developing the first-strike capability.

Mr. SCHULTZE. Let us start by taking Secretary Laird's testimony with respect to the ABM, in which the Safeguard ABM is primarily, not solely, but primarily justified because in Secretary Laird's words, he fears that the Soviets with their SS-9's are developing the capability of wiping out or could develop the capability by 1975, I think was the time, of wiping out the Minuteman force.

This is not a first-strike capability because we still have our submarines. Nevertheless, it is—looked at just with respect to our land-based force—a first-strike capability. We want to protect that, so we are moving to build an ABM defense around it.

Now, at the same time, we are signifying to the Soviets clearly that we are building, in terms of numbers, a force which will be much more capable than their SS-9 in doing the same thing that we are reacting to. Therefore, even though that would not give us a first-strike capability with respect to their entire forces because they still have their submarine force, too; nevertheless, it does put their major land-based missile system in jeopardy. Therefore, although I obviously do not know any more about what goes on in the Kremlin than the next man, it seems to me inevitable that their conservative military planning must assume that with that capability on our part they have to react.

Their reaction could be a number of things. Their reaction could be mobile land-based missiles so we could not locate their forces. It could be a substantial beefup in their submarine forces. It could be an expansion of their own force in terms of numbers. All three of those reactions give them greater missile strength which, using the conservative methods of planning we do use, reacts back on our plans and we have got to crank up higher.

I am a little leery to use quite the term of "full first strike," because I do not think either side will ever have it, but in protecting themselves against the other side, in thinking to make sure the other guy does not have to make the first strike is where you grind ever upward.

I think perhaps the best way to do this is to read you just a short quote from General Wheeler, which is precisely how we anticipate and when:

General WHEELER (in response to a question). I do not think that they, the Soviets, believe that we are going to strike first, Senator Miller, but any prudent military planner does not operate solely on what he thinks the enemy is going to do; he will want to have sufficient forces so even if we did strike first, they would have enough left to give us a very sharp blow.

In other words, what General Wheeler is indicating, any conservative planner is not included to crystal gaze at intentions; he looks at the capabilities.

Chairman PROXMIRE. Senator Percy?

Senator PERCY. Dr. Schultze, in your prepared testimony, your first recommendation is that the Secretary of State submit to the Congress a posture statement and as a part of that posture statement that he outline the overseas commitments of the United States.

I presume this would be an open presentation.

Would it also be desirable for security purposes to have in closed session the Secretary of State at least annually submit to the Foreign

Relations Committee commitments that we are planning to make so that there can be some dialog and discussion with Congress?

Once the commitment has been made, it seems that it is very difficult then it reverse it and a Member of Congress is reluctant to, as this is really a statement after the fact. Whereas, we might really be able to do something about it if we knew what was in the minds of the executive branch ahead of time and whether or not this was consistent with the intentions of Congress on that issue.

Mr. SCHULTZE. Senator, I agree with, I think, about 98 percent of what you said. But I am just a little leery of setting this up with a separate secret session, because the inevitable tendency would be to put all of the hot stuff in the secret session regardless of how really secret it was. And yet I cannot say at the same time there will never be situations when there should not be a classified portion.

If I could find some way to hedge it around, to make sure that the secret part of it was used very sparingly, I would fully agree.

Senator PERCY. Let us say all commitments that have been made should be open, all of those commitments we are planning to make that do not involve our planning security should be open, but those that must be classified for the purposes of enabling State to disclose them should then be in closed session.

Mr. SCHULTZE. I think that is right, Senator. I think quite frankly there is a problem in discussing these things openly. It tends to shake your allies up when you start discussing problems of your troop strength in their countries and all that. However, a lot of this is done in the Defense posture statement now, instead of where it should be, in the State Department's statement.

No. 2, I guess you have to face it, that is one of the prices you pay in a democracy. I do not know how you can get around it.

Senator PERCY. You have given five basic reasons why there is going to be a significant rise in non-Vietnam defense spending in the next 5 years. The first is military and civilian pay increases. I would agree it certainly would not work toward anything near a voluntary army. Is there any way we can cut this expense overall by forced reduction, so that the forces remaining are well paid and compensated and we cut the turnover costs down but we reduce our forces. Take NATO, for instance. Canada has just cut back now its 10,000 force level in Europe to about one-third. They already have less than a third per capita our contribution and yet they are cutting that back by two-thirds within a year.

Is it conceivable that so long as Czechoslovakia is stabilized and does not appear to be a threat to Western Europe or to our direct interest, that we could then look forward to cutting our force level in Europe?

Mr. SCHULTZE. Senator, it seems to me first that there are possibilities for cutting the number of men in the Armed Forces. There have been several articles recently, for example, pointing certain possible ways of doing this. I would, myself, put first priority on certain cuts that can be made in worldwide support forces and in transient strength, rather than in the combat forces in NATO, without foreclosing the possibility of looking at that.

It seems to me the first priority could well come in areas where you could maintain completely your military effectiveness and still reduce significant numbers of troops in terms of support levels. I would put this as first priority. But it does not mean one should not examine the NATO war strength, but I would put that lower down on my list of priorities as to what to do.

I think you could get a first increment out without touching the combat strength in NATO.

Senator PERCY. Would it not make a difference in our strategic planning now that we have the capability of transporting forces much more rapidly than before when some of the forces originally overseas were originally established? Aren't we much more able to move quickly into an area where we determine we must go, rather than continue to base any forces overseas?

Mr. SCHULTZE. I think, No. 1, yes, the trade-off between mobility and troop strength, can well be looked at, and should be. I do not think it will save you much money. It will save you the balance-of-payments costs. And I think it is primarily in terms of the balance-of-payment cost. The cost of airlift-sealift is not cheap, as you know. I think it is more in terms of balance-of-payments savings than overall budget savings.

Senator PERCY. Another reason you have given for an increase in non-Vietnam defense spending is cost escalation and I presume a part of this is just inflation.

Can you tell us, with your economic background, why it is that we have continued to have, despite increased taxes, budget cuts, everything else, the high level of inflation that we have experienced the first 4 months of this year?

Mr. SCHULTZE. I am not sure, with or without my background, I can really answer that satisfactorily.

I have one undocumented view, something you cannot really prove with statistics. I think for the first time in the postwar period that the American economy in the last 2, 2½ years, has not gotten itself into the position that expectations of future inflation are determining what is going on or at least partly what is going on. Once you get into that kind of a situation you tighten up fiscal policy and at least for a while the expectation will continue.

In my own view, expectations will get knocked in the head. But they are the reason why inflation has gone on longer than, quite frankly, most of us predicted a year—a year and a half ago, when the surcharge went in and later when monetary policy started to tighten up.

I cannot document that, but I think it is the case.

Senator PERCY. How important is military spending in inflation—and we now spend \$81 billion or more a year? Is that an important factor in adding to inflation? Is this spending creating its own problems by the sheer level of expenditure?

Mr. SCHULTZE. Well, let me go back a little bit and say I think the current problem of inflation really had its genesis in the very rapid rate of increase in military spending which occurred when we went into Vietnam. Not so much the level we got to, but the fact we got there so fast. That is No. 1.

So, yes, it is important, but I would emphasize in that case, more the rapidity of the increase rather than the size.

Secondly, at the present time, clearly, if you could hold to current tax rates for a while and knock \$5 billion off military spending, it seems to me clearly this would have a significant anti-inflationary impact.

Finally, you ask in the long run does having a large military budget somehow contribute to an inflationary psychology or inflationary economy. I am not sure I can answer that. I see both sides of that argument. On the one hand, you are using up very valuable resources, namely skilled talent, engineering another talent, and you are particularly driving up the price of critical bottleneck skills and salaries.

So, on the one hand, yes. On the other hand, it is probably true that if we did not have these resources in the military, that where they would be used elsewhere would generate much less new technology, that have an impact on growth. So I do not know how this all balances out—I cannot net it out.

Senator PERCY. Two of the five major reasons you have given for the future gloomy outlook on military spending are (1) going into the production of systems that are now being developed, and (2) the mutual escalation of the arms race, I presume with the Soviet Union. Would it not then behoove us to place the highest conceivable priority on arms talks with the Soviet Union, to get those talks underway at the earliest possible time, and see whether it would not be wise to delay the deployment of a system such as ABM, which is escalating in cost estimates every day, until such time as we see whether a useful, effective, and forceful agreement can be reached with the Soviet Union, which may well have a mutuality of interest with us in bringing down its horrendous costs?

Mr. SCHULTZE. Senator, I could not agree more, in particular that the timing of arms talks is critical, for reasons that I think you are aware of. That has to do, again, with the MIRV and the testing of the MIRV, and the problems of surveillance and a lot of technical reasons that the sooner arms talks can be held, the better.

I fully agree with you on that.

Senator PERCY. Thank you very much, Dr. Schultze.

Chairman PROXMIRE. Mrs. Griffiths?

Representative GRIFFITHS. Thank you.

I would like to congratulate you, Dr. Schultze. Your statement is really excellent.

I was particularly impressed by your statement about \$5 billion on the Chinese, and nobody said a word about it. I agree, that is really remarkable that nobody did say anything. And then I got to thinking about it. If you assume there are 700 million Chinese and somebody had spoken up, that is a little more than \$5 a person to get rid of China. Maybe we would have lost on that one.

Maybe they would have gotten more money if we had said anything. What a question.

Mr. SCHULTZE. I find it hard to quarrel with your judgment. I do not really know.

Representative GRIFFITHS. I would like also to touch on something that Senator Percy brought out. If you really had a committee set up to discuss priorities, what real possibility is there that you could keep it open at all? I have just come from the Ways and Means Committee and I have in my purse a little confidential print of one of the things that has always amazed me, and that is, what is confidential about the Tax Code.

Now, if that is confidential, then how would you keep a committee open that was discussing the expenditures on Defense. And if you do not put it that way, it really is not much value.

Mr. SCHULTZE. Well, I have got a couple of points on that.

First, I am impressed by how much there is publicly available about military spending that you can get if you want to dig. Sometimes you have got to dig. Classification is a problem, but I would say this, if I have got to put my index to a problem at 100, I would say classification may account for 10 of it. You can dig out an awful lot of stuff.

Let me give you an example of how one can, if I can inject a little bit of humor into this—how one can dig out information.

This is a discussion in the Senate, before the Armed Services Committee Preparedness Investigating Subcommittee on the status of U.S. strategic power, and they are talking about the effectiveness of our air defense system, a highly classified matter:

Senator CANNON. In other words, the Air Defense Command agrees that if the Soviet sends over [deleted] heavy bombers now, we would only knock down [deleted] out of the [deleted]?

Dr. FOSTER. I cannot speak for the Air Defense Command, sir, but I am not the least bit surprised [deleted].

Senator CANNON. I am shocked.

Senator SYMINGTON. Incredible.

So I do not know what percentage they knocked down. I know it is awfully low.

In any event, there is a problem, I understand. My own view is that is not the big problem.

Representative GRIFFITHS. In the Moss subcommittee, I recall that they found a man who had gone over to the Library of Congress and had dug out a lot of things and then he put them all together. It was marked, "Confidential." They were published in the Library of Congress. He got them all there. And I think that there would be some tendency to do this, the minute you set up a committee which is really drawing attention to Defense expenditures versus domestic expenditures that they would say all of this is confidential.

Mr. SCHULTZE. That partly depends on the membership of the committee, over which, obviously, I would have no control. But it does depend on the membership of the committee.

Representative GRIFFITHS. I would like to ask you, how specific do you think this committee should be on discussing these priorities? That is, how far back into Defense expenditures should they go?

Let me say to you, while you commended the officers of the Defense Department, I would like to tell you that they are the poorest purchasers on earth, no matter what else they are. Therefore, how specific

do you think the thing would have to become to make it understandable to the general public?

Mr. SCHULTZE. I think quite specific. I see no reason why this projected committee could not discuss, say, the rationale for the Navy's 15 attack carriers, how they are deployed, where they are deployed, and presumably come out with a report which indicated the annual cost, let us say, of maintaining one of those carrier task forces.

I have never seen the task force costed out, but I believe each one costs up to \$300 or \$400 million a year, which is roughly the equivalent of twice, I think, we are now spending in Federal grants on water pollution. You can look at what the mission of the extra, the 15th carrier is; is it worth twice what we are spending on water pollution?

You can lay out both and it seems to me it would be very useful information for the Congress to have as background for voting money for water pollution and money for carriers. I think a lot of it could be done quite specifically. I do not think one has to have led a combat division to go through that kind of act.

Representative GRIFFITHS. I was told privately by a disgusted Congressman when I first came here that the reason we have carriers is because you cannot be an admiral on a submarine.

Thank you very much.

Chairman PROXMIRE. Senator Symington?

Senator SYMINGTON. Thank you, Mr. Chairman.

First of all, I am sorry Senator Percy is not here. I would like to reciprocate his kind remarks. There is nobody's opinion I respect more than I do his.

Mr. Schultze, I would like to join my colleagues in commending you. This is one of the best statements that I have read on this subject in the 24 years I have been involved with national security, in both the executive and legislative branches. Knowing you, it does not surprise me.

You have been in a position that few people have ever been in, to form opinions in this matter, and you have been articulate, but a little general.

I would like to get right down to specifics.

If you were analyzing the problem of this ever-increasing defense budget, becoming more acute because of also increasing fiscal and monetary problems, where do you think we can start? With what system? Of the various illustrations you have given this morning, what would be your first choice for reduction?

That does not have to be considered, it can be a guestimate, but knowing of your tremendous experience in the field, where would you start today?

Mr. SCHULTZE. Where I would start looking, at least, I think first, is the 15 carriers. The reason that is important is because we now are building or about to build three nuclear carriers—\$536 million apiece is the last estimate, and it will be higher than that. I would start at the 15 carriers.

I do not have any answers to that yet, but I think that is what I would look at, No. 1.

Chairman PROXMIRE. Would the Senator yield at that point?

Senator SYMINGTON. Yes.

Chairman PROXMIRE. I think it is important, \$536 million just for the shell, hull, not for the plane, not for the fleet that is necessary for a carrier.

Mr. SCHULTZE. That is correct.

Chairman PROXMIRE. I understand it is about \$1.5 billion, the whole show.

Senator SYMINGTON. More than that, it is about \$1.8 billion.

Mr. SCHULTZE. I do not have an exact number, but it is in that ball park, plus the cost of running the task force.

Senator SYMINGTON. I appreciate the Chair's remarks. The reason I mentioned that, thanks to the fine cooperation of the Chief of Naval Operations, Admiral Moorer, we obtained a figure of \$1.75 billion as the cost of a carrier task force.

At the same time, I asked the figure of the General Accounting Office and it was very close, as I remember, \$1.8 billion. Let the record show, incidentally, that you and I have never discussed this matter.

Now, that is the first choice. Let us go to your second. Where is the next point you would like to look at from the standpoint of your vast experience over the years in weapons systems, in the cost of weapons systems?

Mr. SCHULTZE. I was just going to say, maybe the record ought to show it that way.

In terms of priorities, you are pressing me, but I think, let me give two of them. I would want to find out a good bit more about the Navy's plan to replace the F-4 with the F-14, and whether it is necessary to replace, as I understand the plans are from the posture statement, the way I get it, to replace all of the F-4's, I think including the Marine's F-4's.

I would want to look at that. That does not mean the F-14 is not necessary. The real question is the magnitude of that buy, which if you replace all of the F-4's in the Navy and Marine Corps, it is quite a sizable buy.

I would want to look then—and this is difficult to do—but I would want to look closely at the support and transient strength of all of the Services. There is, you know, big money in personnel. You know the crude rule of thumb is about \$10,000 a year a man.

For example, as you know, each of our division slices, you can break it into three parts, combat slice, 16,000 men; the initial support increment, 16,000 men; and I forget what they call the long-term increment and support, 16,000 men. Our ratio of support to combat troops is tremendously high.

Now, I do not have the right answer, you know, as to exactly what one could do but it seems to me looking at that support level and the possibility of trimming those back, 100,000 troops is \$1 billion a year. Similarly, with the transient business, the strength of the forces as calculated to allow them to be full-up all the time plus transient or extras, so the force is higher by a significant amount because we allow transient.

I would want to look at that very carefully. As I say, every 100,000 men is a billion dollars a year. I do not have the specific answer, I mean that is an area to be carefully looked at.

Senator SYMINGTON. I have one other question because I did not quite understand a reply you made previously.

The person who originally, to the best of my knowledge, suggested a reduction in troops in Europe was a great military expert, the late President Eisenhower. For years, I have been the leading advocate of that position, primarily from the economic aspect.

Today we are supporting nearly a million people in Europe, counting dependents. On the basis of two logistics persons per combat soldier, if you reduce two logistics people don't you automatically reduce the combat people, and vice versa?

Mr. SCHULTZE. There are two parts to that question.

Senator SYMINGTON. Let me rephrase it. You have almost five combat divisions in Europe today, plus dependents, and you have had them there for over a quarter of a century. And they are badly "cannibalized" as far as equipment and people are concerned because of the Vietnam war.

If you reduce, say, two or three combat divisions out of those five, we automatically have reduced logistics, would we not?

Mr. SCHULTZE. That is correct, sir.

Senator SYMINGTON. Please clarify as to your original reply to the previous question.

Mr. SCHULTZE. Senator Percy asked about reducing troops in Europe. I said that in terms of looking at troop strength, not just in Europe, everywhere, I would put first priority on going after support troops.

Senator SYMINGTON. Where?

Mr. SCHULTZE. Everywhere. In other words, an examination of the whole problem of whether you need—

Senator SYMINGTON. Then that is a reorganization of the Army and the Marine Corps and Air Force and Navy from the standpoint of efficiency; is that correct?

Mr. SCHULTZE. That is correct.

Then, I would do that first. I would put higher priority on that than pulling troops out of Europe.

Senator SYMINGTON. But you are going to pull them out of Europe, if you do exactly what you just said you would like to do.

Mr. SCHULTZE. I am talking combat troops. Excuse me, you would pull troops out of Europe, but they would not be necessarily combat troops if you just did as I indicated.

Senator SYMINGTON. Mr. Chairman, I would like to join the group of people who have commended you for these hearings. With great respect and admiration, I say I think these hearings are very much in the interest and security and prosperity of this country, and I am proud to be a member of this committee.

Chairman PROXMIRE. There is no one from whom I would rather have that statement come, Senator Symington.

Congressman Moorhead.

Representative MOORHEAD. Mr. Chairman, at the outset, I would like to associate myself with the remarks of the distinguished Senator from Missouri. I think Mr. Schultze has pointed up the crucial issue—the need for a change in public attitude, and I think that these hearings of your subcommittee, Mr. Chairman, are going to be significant in effecting the change in public attitude. If the public demands that we reduce the military budget, the President is going to respond to that.

If the President responds, the Bureau of the Budget is going to respond too—the Congress and the General Accounting Office will respond, also.

So I think the best check, and proper check, on military spending is in the attitude of an informed and concerned public. I think that the actions of your subcommittee will contribute to that.

Would you agree, Mr. Schultze?

Mr. SCHULTZE. Yes, sir.

Representative MOORHEAD. Mr. Schultze, in your statement you referred to disarmament negotiations, if held quickly. Stressing the word “quickly.”

Why do you stress the word “quickly” and with particular respect to the so-called MIRV system?

Mr. SCHULTZE. The major reason for that is as follows: Right now by techniques that everybody is aware of, we can pretty well count what the Russians have in the way of missiles and they can count what we have. So that if you stick just for the moment to the number of missiles, a self-enforcing arms agreement might seem to be possible.

Similarly, and with all sorts of qualifications and technical problems, I think it is fair to say that we can tell when the Russians are testing multiple warheads and they can tell when we are testing multiple warheads. But once MIRV's get tested to the point whether either side believes the other can deploy them, then you are in some trouble, because it is very difficult to know how many warheads are in any one missile. You can still count the missiles, but how many warheads do they have.

Hence, the further down the road you do go with MIRV technology, the more difficult it is to stop it in terms of an enforceable arms agreement. And while, as I say, there are all sorts of apparently technical disagreements on the fringe of the statement, it seems to me it is generally true to say that the longer MIRV testing continues, the harder the agreement will be to get at, and therefore is why I stress the word “quickly.”

I think quickness is very essential, even though I myself do not know enough to know exactly what time is critical and when you pass the point of no return. That, I do not know.

Representative MOORHEAD. I agree that this is terribly important, that is why I wanted to stress this statement of yours.

At various places in your testimony, you spoke about the two-and-a-half war assumption, which of course includes, as you say, “simultaneous attack by the Chinese and the Soviets.”

I wonder if that two-and-a-half war, simultaneous concept developed at a time when the Soviets and the Chinese split had not occurred, at a time when they may have conceivably worked together to plot a simultaneous attack, however, would you not say that the present situation considering the ideological split and the border clashes that more conceivably the opposite could be predicted?

In other words, to hypothesize a crude situation, if the Soviets moved against the West they could hardly be confident of Chinese support—in fact, their main concern would be the vulnerability of their eastern border to the Chinese, and vice versa?

Mr. SCHULTZE. Yes, I think as Professor Galbraith said, I am neither a Kremlinologist or Pekingologist—somehow that sounds obscene—but in any event I think the basic thrust of your statement is eminently sensible.

You know, again, it is this problem in military planning against how remote a contingency do you want to protect yourself, clearly the contingency is remoter than it used to be, but I could not in all honesty say it is completely impossible.

Representative MOORHEAD. So often in Government we make assumptions on which we base decisions, and then when conditions change no one is examining the basic assumptions to determine whether they are still relevant as a basis of policy.

Mr. SCHULTZE. Mr. Congressman, maybe for the record it would be useful to point out I think what is really needed is an informed discussion and debate on this issue. I am not at all convinced myself the answer is open and shut. There is some value, it seems to me, in a U.S. umbrella over some of these nations in terms of preventing their own development of nuclear weapons. It is the one thing we do not want—is for them to feel so insecure that they have to develop a nuclear weapon.

Hence it seems to me there is a real issue to be discussed and debated here, and my attempt in the paper is not so much to attack that contingency planning, although it might be somewhat dubious, but rather to point it out as a major piece of national policy because the major sums of money, and nobody ever did debate it.

Representative MOORHEAD. It is my fond hope that these hearings will be the beginning of this debate.

Mr. Schultze, I was very much interested in your priorities in terms of budget cuts that you gave to Senator Symington, but in your statement you talk about 23 tactical airwings. Are you suggesting that we also might have more than necessary in our Tactical Air Force?

Mr. SCHULTZE. Well, on that one, it simply seems to me it is worth looking at. I must confess. I feel less comfortable about making any fiat statements on that. That is one I just happened not to have done much looking at recently. I think a look should be taken. I am somewhat reluctant, exactly, to say how it might come out because I do not really know in that case. But I think it is worth taking a look at.

Representative MOORHEAD. Your statement says we have eight anti-submarine carrier task forces. How many antisubmarine carrier task forces do the Communist nations have?

Mr. SCHULTZE. To the best of my knowledge, the Soviets have one helicopter carrier. I do not know what the basic purpose and function of that carrier is. There is no use of me guessing; I do not know. But they have one helicopter carrier, period.

The antisubmarine warhead carrier, I think I might do best as quoting, as best I can remember, Secretary McNamara in a January 1968 posture statement, where he pointed out with respect to these anti-submarine warfare carriers, if they were substantially equipped with new planes, they might be marginally effective.

That suggests to me it is a good place to look into.

Representative MOORHEAD. I remember that. You testified that we have 15 attack aircraft carriers. How many attack aircraft carriers do the Communist nations have?

Mr. SCHULTZE. None. Again, to the best of my knowledge. I do not read "Janes Fighting Ships" but to the best of my knowledge, they have none.

Representative MOORHEAD. Mr. Schultze, after the Israel destroyer was sunk by a missile—or was it a torpedo—by the relatively unsophisticated Egyptians, I wonder if attack aircraft carriers and anti-submarine aircraft carriers are not particularly vulnerable to missiles launched from land, air, surface ships, or submarines.

Are we not putting a lot of money into a very vulnerable weapons system?

Mr. SCHULTZE. To be honest with you, I just do not know specific vulnerability problems with the carriers in a conventional as opposed to a nuclear situation.

One of the reasons we are going to spend an awful lot of money on the F-14A is precisely to try to remove some of that vulnerability by having an aircraft which can stand out several hundred miles off the carrier, and loiter, with this carrying a missile. In other words, trying to protect its vulnerability. It is a very expensive process.

I am not sure I would be qualified to say how successful it is going to be. But invulnerability is clearly a question one has to raise.

Representative MOORHEAD. You are saying we may be able, by spending large sums of money for fleet protection, we may be able to offset, to a degree, that vulnerability; is that right?

Mr. SCHULTZE. I am saying this is the attempt, yes, with the F-14A. In this particular case, against Soviet bomber attack.

Representative MOORHEAD. Has the Soviet bomber threat ever materialized?

Mr. SCHULTZE. No, sir; as I pointed out in my paper, again relying on statements of the Armed Services and House Appropriations Committee, it has not.

Representative MOORHEAD. Would the F-14 offer any protection from a submarine-launched missile?

Mr. SCHULTZE. I cannot answer that with any certainty. I would seriously doubt it, but I simply cannot answer it with certainty.

Representative MOORHEAD. And, of course, carriers are within range of land-based missile systems, against which the F-14 would not provide protection.

Mr. SCHULTZE. No. Again, to the best of my knowledge, it would not be designed for that sort of protection. Presumably, you have to take the missiles out with an attack bomber.

Representative MOORHEAD. I would be inclined to agree with you. The first place we should look into, as you suggested to Senator Symington, is the entire carrier program.

Mr. SCHULTZE. Yes, sir.

Representative MOORHEAD. Thank you, Mr. Chairman. My time has expired.

Mr. SCHULTZE. I want to point out clearly it is not a question of 15 or none. I would not want you to take a look at it that way, but clearly the number 15 should not be a magic number.

Representative MOORHEAD. Particularly when you point out it may come from a historical accident rather than a conscious or national selection of the number 15.

Thank you, Mr. Chairman.

Chairman PROXMIRE. Mr. Schultze, may I just ask a couple of very brief questions. You imply in your statement that you would give many of our general purpose force components lower priorities, than weapons systems. In your response to Congressman Moorhead and Senator Symington, you place the priority on weapons systems.

In your statement, you emphasized over 60 percent of the Defense Department budget is spent on maintaining a level of these general purpose forces. If the Defense budget can be considerably restrained or reduced sharply, do you feel many of these general force components would be reduced with little sacrifice to national security?

Mr. SCHULTZE. I think one could take a significant chunk out of that budget without a sacrifice to the national security in general.

Chairman PROXMIRE. What are the components of the general purpose force that should be carefully scrutinized?

Mr. SCHULTZE. All of the ones I indicated were part of general purpose forces, carriers, antisubmarines, warfare carriers.

Chairman PROXMIRE. I am not talking about the weapons systems—

Mr. SCHULTZE. Numbers of divisions, for example. That, I am not so sure of. I did indicate that, it seems to me that the supporting level of troops would clearly be looked at and there is big money there. And as I said, in the case of carriers, in the case of the planes to go with them, which are part of the general purpose forces, I think this should be looked at very closely.

Mr. SYMINGTON. How about the Chinese contingency?

Mr. SCHULTZE. I would be honest with you. I am waffling on that one, because if you force me to say it, I would say post-Vietnam, that should be cut back, but I am not terribly certain exactly by how much.

Chairman PROXMIRE. The other question I have relates to whether you feel that whether or not a national priority committee is set up, the kind you describe, do you feel this Joint Economic Committee should have a similar set of hearings next year; that is, to examine specifically the impact of military budget on the economy?

Mr. SCHULTZE. Yes, sir.

Chairman PROXMIRE. You feel that way about it, it would be a contribution?

Mr. SCHULTZE. I think I do; yes, sir.

Chairman PROXMIRE. I like that answer. Thank you very much.

You have done a splendid job.

Tomorrow, the subcommittee will convene at 9:30 to start off with Senator Fulbright as our first witness, in this room.

The subcommittee stands in recess until that time.

(Whereupon, at 1:25 p.m., the committee recessed, to reconvene at 9:30 a.m., Wednesday, June 4, 1969.)

THE MILITARY BUDGET AND NATIONAL ECONOMIC PRIORITIES

WEDNESDAY, JUNE 4, 1969

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON ECONOMY IN GOVERNMENT
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The Subcommittee on Economy in Government met, pursuant to adjournment, at 9:35 a.m. in room G-308 (auditorium), New Senate Office Building, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senators Proxmire, Sparkman, Symington, and Percy; and Representatives Griffiths, Moorhead, and Conable.

Also present: John R. Stark, executive director; Richard F. Kaufman and Robert H. Haveman, economists; and Douglas C. Frechtling, minority economist.

Chairman PROXMIRE. The subcommittee will come to order.

Today is the second session in the hearings on "The Military Budget and National Economic Priorities," being held by the Subcommittee on Economy in Government of the Joint Economic Committee. These hearings are in response to the recommendation contained in the recent annual report of the Joint Economic Committee which urged the Congress to undertake a comprehensive study of national priorities which would focus on the allocation of Federal revenues between the military and civilian budgets.

Yesterday the subcommittee heard from two prominent economists, John Kenneth Galbraith and Charles Schultze. They presented us with stimulating and provocative statements on the role of the military budget, the process by which defense decisions are made, and the means by which the Congress can increase the effectiveness of its constitutional role as guardian of the public purse.

Today, we will hear the statements of Senator William Fulbright and three prominent scholars on the matter of national priorities and the impact of defense spending. Senator Fulbright, who is a member of the Joint Economic Committee, will present his statement first and be questioned on it. The subcommittee is honored by his appearance and is looking forward to hearing his views on the matter of national priorities.

Following Senator Fulbright, we shall hear a panel of witnesses composed of Kenneth Boulding, of the University of Colorado, a professor of economics and prominent scholar; Dr. Leonard Lecht, director of the Center for Priority Analysis of the National Planning Association; and James Clayton, professor of history at the University of Utah. I welcome all of these gentlemen to this session.

In addition to the meeting tomorrow, I would like to announce that the subcommittee will also meet on Friday this week. In the Friday session, which has not been previously announced, we shall hear from former Secretary of the Interior Stewart Udall and Mr. Joseph Califano, a former Defense Department official and special assistant to President Johnson.

Senator Fulbright, we are honored and pleased to have you.

You may go right ahead.

**STATEMENT OF HON. J. WILLIAM FULBRIGHT, U.S. SENATOR FROM
THE STATE OF ARKANSAS**

Senator FULBRIGHT. Mr. Chairman, I appreciate being given an opportunity to testify at these hearings.

I think the subject you are considering goes to the heart of what Government, and our responsibilities as Senators, are all about. I feel that our principal duty, as representatives of the people, is to use our best judgment in charting the Nation's course for the future. The principal instrument for charting that course is the Federal budget, which represents the collective wisdom of two of the three branches of Government. The budget reflects the sense of values of the political leaders under whose direction the budget is prepared, just as the final appropriation bills reflect the values of the dominant elements of the Congress.

The magnitude and the complexity of the military budget of our country, and the fragmented organizational structure of the Congress, make it difficult for any one committee to review military spending from the perspective of national priorities, as your committee is doing. I hope that these hearings will focus attention on the structural problem as well as the basic issue of national priorities. The military budget should be subjected to the same detailed scrutiny of Congress that other Federal programs receive. There should be no special privileges or exemptions from accounting in the expenditure of the peoples' taxes, even though it be for military goods.

Your hearings focus on the question all Senators and Congressmen should have uppermost in their minds in approaching their responsibilities—what do we want our Nation to be? Do we want it to be a Sparta, or an Athens? Do we want a world of diversity where security is founded on international cooperation, or do we want a Pax Americana? Do we as a people place a greater value on trying to mold foreign societies than we do on eliminating the inequities of our own society? I believe that, contrary to the traditions which have guided our Nation since the days of the Founding Fathers, we are in grave danger of becoming a Sparta bent upon policing the world. The budget tells the story.

In the next fiscal year, it is proposed that about \$81 billion be spent on a defense force of 3,500,000 men in uniform (plus reserves), 895 ships, 35,000 aircraft, and many thousands of long-range nuclear missiles. If past experience is a guide, supplemental requests will push the total far higher. And with \$8 billion budgeted for research and development on new and more sophisticated weapons next year, the budget demands for the military, if met, will easily more than consume any savings that may come from an end to the war in Vietnam.

With a military strategy based on fighting two and a half wars at once, and preparation geared to meet a "greater than expected threat" the sky is the limit to meet needs, as seen by military planners. In a recent statement of his defense philosophy, Secretary Laird said that his decisions would be based, not on enemy intentions, but on their capability. If the Soviets adopt the same philosophy, both countries will surely spend themselves into bankruptcy.

What does the budget for defense mean in terms of dividing up the pie?

It means that, outside of trust fund spending, about 55 cents out of every dollar the Federal Government spends goes to the military.

It means that 70 cents of every dollar from general revenue will go for paying for the cost of wars—past, present, and future.

It means that over \$400 per capita will be spent on the military—an increase of 60 percent in each citizen's bill for the military over the last 5 years.

It is not until we look at what is left to take care of domestic needs that the full impact of military spending becomes apparent. Members of this committee, with long experience in studying our Nation's economic and social problems, are acutely aware of the many unmet needs of our society.

Education is an example of such a need. Schools from kindergarten to graduate school are overcrowded and underfinanced. Nine billion dollars is authorized for the various programs of the Office of Education in the next fiscal year. Only about one-third the amount authorized, \$3.2 billion, is included in the budget.

Less is proposed for elementary and secondary education than it costs to assemble an attack carried task force; we have 15 such carriers.

More is budgeted for chemical and biological weapons than is to be spent for vocational education.

More will be spent on the ABM, taking the military estimate at face value, than will be invested in higher education.

Five times as much will be spent on a nuclear carrier as will be provided for libraries and other community services.

Six times as much as budgeted for the Air Force's Manned Orbiting Laboratory as is slated for education of the handicapped.

This all adds up to the fact that less than \$39 per capita is being invested by the Federal Government in the education and training of our citizens, about one-tenth the amount going to the military. I do not believe this is an accurate reflection of the real desires of the American people, but it does reflect the present distribution of power among the bureaucracies of Washington.

In the midst of our great affluence, poverty is still a way of life for 23 million Americans.

Our cities are going downhill rapidly. There has been much talk, but little action, about how to make cities fit places in which to live again. The Kerner Commission recommendations, so widely hailed a year ago, are still no more than that. The model cities program is budgeted for an amount comparable to that allotted for foreign military aid. Thirteen dollars per capita is the total for all community development and housing programs, about 3 percent of the per capita bill for military activities. If this Nation can afford to pour out \$23 billion on missile systems in the last 16 years, and then abandon them, as revealed by Senator Symington earlier this year, surely it can afford to do far more to make the cities liveable.

This list could go on. But it would be but a repetition of the same theme. Our system of priorities is cockeyed.

By the end of the coming fiscal year we will have spent about \$1,250 billion on the military since the end of World II. It has been said that the United States and the Soviets between them possess the equivalent of 15 tons of high explosives for every human being on earth. Yet security eludes us abroad—and at home. The greatest threat to peace and domestic tranquillity is not in Hanoi, Moscow, or Peking, but in our colleges and in ghettos of cities throughout our land. The state of our real security is evidenced by the fact that it is no longer an extraordinary event for the National Guard or the Army to be called out to control our own people. The Army now boasts that 680,000 men in the Armed Forces have been trained for riot duty. Largely due to the Congress failure to put first things first in the budget, this training will most likely be put to use in the long, hot summer ahead.

I believe that the turmoil on the campuses, the unrest in the cities, and the signs of a taxpayer revolt are not unrelated to the distortion in our national values that seeks world peace and tranquillity through the force of arms. Professor George Wald of Harvard, in speaking of the causes of student unrest put it this way :

Just after World War II, a series of new and abnormal procedures came into American life. We regarded them at the time as temporary aberrations. We thought we would get back to normal American life someday.

But those procedures have stayed with us now for more than 20 years, and those students of mine have never known anything else. They think those things are normal. They think that we've always had a Pentagon, that we have always had a big Army, and that we have always had a draft. But those are all new things in American life, and I think that they are incompatible with what America meant before.

He summed the problem up by saying :

I think I know what is bothering the students. I think that what we are up against is a generation that is by no means sure that it has a future.

Congress has it within its power to give assurance to our Nation's youth that they do have a future; a future in which their Government puts the happiness and well-being of its citizens above Pax Americana and foreign adventures. I believe there would be far less unrest and divisiveness in our society today if the Congress were as

willing to vote \$85 billion for rebuilding our cities, and creating a better life here, as it was to finance the disastrous war in Vietnam.

There are signs of a growing public awareness of the problem of runaway military spending and that this awareness is at last being reflected in the Congress. Perhaps this questioning of military programs is the natural result of 4 years of warfare that brought only a stalemate. If the war serves no purpose other than to make the Congress treat the military budget as any other call on the public Treasury, it will not have been a total loss. Congress has been following a double standard when it comes to the military. It would never tolerate, in any other agency, performances such as those by the Defense officials and private contractors that have been revealed in the C-5A and other weapons programs. There should be only one standard, applicable to all Government agencies and personnel, when it comes to spending the taxpayers' money. I hope that this year will mark the beginning of an independent review by Congress of the military budget and a reestablishing of national priorities which will give America's young people hope for the future.

Again, I congratulate your committee for bringing attention to the issue of national priorities. I know that your hearings will make a significant contribution to the public dialog on this most important subject.

Thank you for allowing me this opportunity to testify. I ask permission to have several tables and articles printed at an appropriate point in the record.

Chairman PROXMIRE. Thank you for your very fine statement. Senator Fulbright. Without objection, your additional materials will be included in the record following your testimony.

Senator FULBRIGHT. Mr. Chairman, the point of reference in considering a budget, it seems to me, is what kind of country we wish America to be. It has been well said that "the question is whether America seeks to be a great military empire or a humanistic example to the world."

That quote, it seems to me, is the very center of the discussion which is going on today and has been going on. It went along for 4 years of the last administration, and among the members of the Foreign Relations Committee in the previous administration. And I predict it will be the very center of discussion which will continue through this administration.

The previous administration's effort to achieve both; that is, a great military empire and a humanistic example to the world, or as it has been said, to build Sparta on top of Athens, resulted in a confused society and the ultimate predominance of the military, over domestic and civilian needs.

That our society is confused and distracted is daily attested by the violence and turmoil among our youth in the colleges and the poor and neglected in the cities. And now there are even signs of a taxpayers' revolt.

A taxpayer from a large and wealthy Northern State recently sent me a copy of the statement he filed along with his tax return. Following some very perceptive comments about the Government's policies, he ended with these words:

Now the Government comes to me, the taxpayer, and demands more money in the form of a surtax on my income. But it has so wantonly and shamefully used the money I have already paid it. Shall I provide it more money to continue this outrageous war?

In good conscience, I cannot willingly do this. I am, therefore, withholding at this time part of the surtax due to show my deep concern about the tragic Vietnam policy of this Government.

Next to the taxpayers, the students are perhaps the most important of our citizens. It is no secret that a great many students are disillusioned with our society. Many adults are puzzled by the attitude of the students, and all of us, deplore the violence of the extremists on the campuses who confuse and obstruct real and serious purposes of the majority of students.

Recently, I received a letter from a young man in one of our fine colleges, with some profound thoughts about why so many students are unhappy and dissatisfied. And I think an excerpt from the letter expresses it far better than I can. And I quote from the student's letter.

I may say by way of background that he was discussing some of the students who were so dissatisfied that they had emigrated to other countries. He had not emigrated himself and was simply giving me his views:

These students were educated to value truth and justice; and their educators succeeded. Nuremburg taught them that good men do not cooperate with injustice; and they understood and agreed. Now they see their own country is practicing injustice. Now their own country, try as it will, cannot force them to cooperate. They understand that the war is as much the result of folly as of evil, but that is no consolation. They love the Nation which taught them the value of truth and justice, and now they feel compelled to turn against their own parent. It is a bitter choice.

Johnson promised peace and we got war. Nixon promised peace and the generals say, "at least two more years of war." When will we have peace? When we are all dead?

Mr. Chairman, I cite these two examples simply to emphasize, if I possibly can, the seriousness of the questions you are raising in these hearings. Students and taxpayers are puzzled and distressed by the policies of their Government.

Discussions of budgetary matters, the enormous sums, so large as to be beyond the comprehension of mortal man, tend to become abstractions and seem to have no relevance to our personal lives. This is one of the reasons why the military budget in particular has never been subjected to the same scrutiny applicable to the civilian activities of our Government.

But the way we allocate our resources is the fundamental barometer of our values as a civilized society, over the long run. Our values and our budget have been grossly distorted in recent years by several different influences—some of them inadvertent and others by design.

Personally, I am convinced the great majority of the American people would like for their country to be a humane example to the world, and by the force of its example lead others, as well as our own people, to a better life.

Mr. Chairman, the plans of our military leaders, as revealed in their posture, statements and actual operations make it clear that the policy of our Government is not—and I repeat, not—to move this country in the direction of becoming an example of an effective society of superior excellence deserving the approval and emulation of others. On the contrary, the objective of the policy planners as revealed by their programs is precisely what so many of our leaders deny—the creation of the greatest military power and the maintenance of a Pax Americana. In short that means the imposition of peace by force of arms, supplied, manned and paid for primarily by the taxpayers of the United States.

It is a well known psychological phenomenon that men and governments often deny categorically the impulses or unconscious purposes to which they are subject. The striking differences between subjective perception and objective reality is one of the most interesting of psychological phenomena. Big and powerful nations are especially susceptible to this kind of aberration.

It is a subject which I hope my committee will look into further in the near future.

When one examines the enormous, fantastic outlay of funds to build and maintain the nuclear aircraft carrier task forces—and as you know, we now have 15 of them and the Russians have none—there can be only one justification—we are organizing the peace of the world based upon our own military force—we are, in effect, policing and preparing to police the world.

For further confirmation of this view, one may recall the request in last year's budget for fast logistic supply ships to be stationed around the world ready for intervention in nearly any area of the world on a moment's notice.

You will recall that the request was deferred, but it reappeared this year. But the notorious C5A airplane is likewise designed to quickly transport troops to any place on the globe. That is the main purpose, so that we can intervene anywhere in support of the fast logistic ships.

Now, Mr. Chairman, I return once more to my original thought, that the point of reference for a discussion of the budget is what kind of country do we want America to be. Until we settle this in our own minds, how can we make wise choices among the many different programs presented to us? In order not to be misunderstood, I wish to add that to be a humanistic example to the world does not require unilateral disarmament, it does not in the foreseeable future mean disarmament, but it does mean a halt to the absurd, wildly extravagant arms race presently being nursed by our Government.

Presently there is no indication we will even negotiate or talk with other superpowers.

To halt this race does not require that we alter the present balance of terror provided by the ICBM's, the bombers and the submarines. It merely means not to proceed with the enormously costly new programs now being considered and proposed by the planners. At the very least, we should not proceed with the MIRV and ABM until we have, in good faith, opened negotiations with the Russians on arms control in accordance with article 6 of the Nonproliferation Treaty.

In addition to these restraints, we should end the enormous arms sales programs and begin to dismantle many of the surplus and obsolete military installations scattered around the world which are extremely costly and serve no useful purpose. There are estimated to be more than 400 "bases," and some 2,000 "installations."

Mr. Chairman, the tables I have submitted give figures comparing how very little relatively we spend as a community upon such activities as education in all its phases, health, the relief of hunger and abject poverty, the prevention of pollution of our environment. I will not take the time of the committee to read the figures. I will sum up this aspect of the case by simply pointing out that since World War II we have spent roughly 10 times as much on warfare and its attendant requirements as we have on the welfare of our people.

The misguided urgencies and unwise priorities revealed in this budget, threaten the essential fabric of our self-governing society.

The essence of a democratic society, in my view, is the voluntary allegiance and devotion of its citizens to the basic values and purposes of the community. If the allegiance is not voluntary, it may be a Nation but it will not be a democratic society.

It is in this respect that I am apprehensive about the future of our country unless we change the present objectives and the policies upon which the budget apparently is based.

I am apprehensive about the future of our country because not only are the students and the neglected poor among us disillusioned by our performance, but many of the sensitive and intelligent adults also are questioning the values and purposes of our Government.

In conclusion I wish to read a few excerpts from a letter from a concerned and thoughtful and passionate father, which illustrates this point.

I received it only a few days ago. The letter is dated May 26, 1969. Part of it is as follows—it is a long letter, I won't read it all, but it is available if the Chairman would like to read it all:

Dear Senator Fulbright. My son David, age 19, died in Vietnam the 20th of May 1969, while serving in the Marine Corps. The funeral will be in Davenport, Iowa, when his body returns home, and burial will be in Rock Island National Cemetery in Illinois.

I send this to you not advertising my personal love for my son and grief at his loss. Although these things are personal and are not ordinarily expressed, we are not in ordinary times. I send you this, rather, as the only personal contribution I can make, my grief and my anger, in hope that soon no more Davids need occur.

I send it to a member of the one organization who can control whether this Nation goes to war.

I may say I do not know this gentleman. He sent it to me simply as chairman of the committee.

I send it as a physician who has spent his adult life, and 5 years of it in the service, in the world of salvaging lives, and to whom, therefore, killing is a special anathema.

As a man of integrity, I trust you will use this in the national, rather than a narrow political interest. You may extract whatever part, read whatever part you choose, and again, I trust you not to subvert its meaning. I am a lifelong Republican and I have no embarrassing connections.

David will never have sons of his own. He has died before he had a chance to form a family and before he could vote.

David, and all the Davids, leave a legacy, just the same. But, it is a silent legacy unless we take the trouble to listen to it.

Are we going to take cynical refuge in the time honored escape clause that war is inevitable, and therefore acceptable, and because it is acceptable, by definition, then, bound to be sane and normal? If this is so, then what lies in my son's coffin is an obscenity, a ghastly joke on dedicated men and their families.

I submit to you that aggressive warfare, not in direct defense of our Nation is not inevitable, not acceptable, and neither sane nor normal behavior. I submit that the good men who have given the ultimate a human being can give will not rest until we stop all such wars we are involved in. And more, that we take the technology we have now and the brains and heart of the good men that are left and devote these to the careful scrutiny of what war is, where it comes from, and how we can substitute other modes of action for it. We already know where war leads. History is largely a chronicle of systematic inhumanity by one man to another. The devastating effect of this on the fabric of nations is commonplace knowledge. All lose. None win.

If this Nation does not act responsibly in this area, it does not deserve the life of my son nor any other man. Nor will the Nation itself have long life. It is doomed if it does not devote total first effort to ceasing this horror.

I believe that the stored combined rage and grief of the parents of all the Davids, and the clear sense of betrayal and anger of the young led away from home like cattle are right now enough to tear this Nation asunder if they find concerted expression.

Signed DCD, M.D.

That paragraph describes more eloquently than anything I can say the anguish of the student, the parent, the taxpayers, yes of all Americans who genuinely love the traditional America of Jefferson and Lincoln, America which has sought truth and justice and the respect of mankind.

And it is to resurrect, to revive, to give renewed life to that America that the members of the Senate today are devoting their efforts. The examination of our priorities by this committee is in my opinion a significant contribution to those efforts.

Thank you, Mr. Chairman.

(Additional materials submitted by Senator Fulbright follow:)

WEAPONS SYSTEMS: A STORY OF FAILURE

(By Bernard D. Nossiter)

The complex electronic gadgetry at the heart of new warplanes and missiles generally works only a fraction of the time that its builders had promised.

The performance of the multi-billion-dollar weapons systems started in the 1950s was bad; those of the 1960s are worse.

The Pentagon appears to be giving the highest profits to the poorer performers in the aerospace industry.

These are the conclusions of an abstruse 41-page paper now circulating in Government and academic circles. The document, a copy of which has been made available to the Washington Post, is believed to be the first systematic effort to measure how well or ill the Pentagon's expensive weapons perform.

Its author is a key Government official with access to secret data and responsibility for examining the costs of the Pentagon's complex ventures. He and his agency cannot be identified here.

His paper, entitled "Improving the Acquisition Process for High Risk Military Electronics Systems" aims at bringing down the costs and bettering the dismal performance of weapons. It does not discuss a question, that might occur to others: if these weapons behave so badly, why is the money being spent at all?

For security reasons, many of the planes and missiles examined are not identified by name.

The paper first examined 13 major aircraft and missile programs, all with "sophisticated" electronic system, built for the Air Force and the Navy beginning in 1955, at a cost of \$40 billion.

Of the 13, only four, costing \$5 billion, could be relied upon to perform at more than 75 percent of their specifications. Five others, costing \$13 billion, were rated as "poor" performers, breaking down 25 percent more often than promised or worse. Two more systems, costing \$10 billion, were dropped within three years because of "low reliability." The last two, the B-70 bomber and the Skybolt missile, worked so badly they were canceled outright after an outlay of \$2 billion.

LOSES FURTHER LUSTER

The paper sums up: "Less than 40 percent of the effort produced systems with acceptable electronic performance—an uninspiring record that loses further luster when cost overruns and schedule delays are also evaluated."

The paper measures "reliability" in this context: The electronic core of a modern plane or missile consists essentially of three devices. One is a computer that is supposed to improve the navigation and automatically control the fire of the vehicle's weapons and explosives. Another is a radar that spots enemy planes and targets. The third is a gyroscope that keeps the plane or missile on a steady course.

When the Pentagon buys a new gadget, its contract with the aerospace company calls for a specified "mean time between failure of the electronic system." In lay language, this is the average number of continuous hours that the systems will work.

In a hypothetical contract for a new jet bomber, Universal Avionics will sell the Air Force on its new deby promising that the three crucial electronic elements will operate continuously for at least 50 hours without a breakdown. In the reliability measures used in the paper described here, the plane is said to meet 100 percent of the performance standards, if, in fact, its gadgetry did run 50 consecutive hours. However, if a key element breaks down every twelve and a half hours, it gets a rating of 25 percent, every 25 hours, 50 percent and so on. Should a system operate with a breakdown interval of 62.5 hours—a phenomenon that happens rarely—its reliability is rated at 125 percent.

TEST FOR THE PILOT

Quite obviously, the more frequent the breakdown, the more the pilot of a plane has to rely on his wit and imagination to navigate, find targets and fly a steady course. Over-frequent breakdowns in a missile can render it worthless as an instrument of destruction.

Curiously enough, as the paper demonstrates, the Pentagon and the aerospace industry apparently learned little from the systems of the 1960s are even worse.

The document first looks at the performance record of the electronics systems in 12 important programs begun in the 1950s. As the accompanying chart shows, all but four missiles can be identified by name without breaching security.

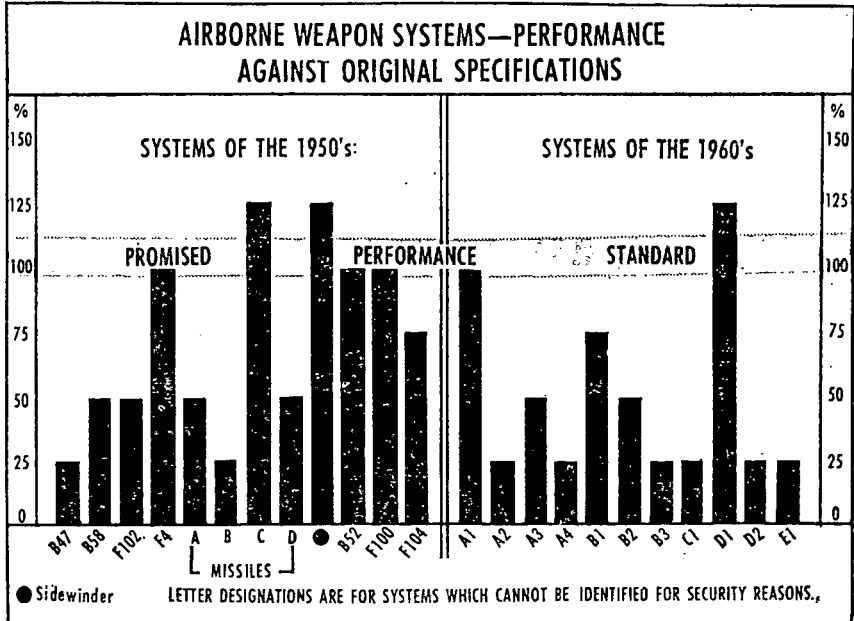
Of the 12, only five perform up to standard or better, one breaks down 25 percent more frequently than promised: four fail twice as often and two break down four times as frequently as the specifications allow.

The document discusses some of the good and bad performers in this group. It observes that the F-102, the Delta wing interceptor for the Air Defense Command, was bedeviled by an unsatisfactory fire control system. Its first had to be replaced; the next was also unsatisfactory, and an extensive, two-year program to modify the device was then undertaken.

SIDEWINDER DID WELL

In contrast, the Sidewinder, a heat sensing missile, performed very well. The study attributes this to the fact that the missile was developed in a lieisurely fashion, without a "crash" schedule, and that several contractors were brought in to compete for key components.

The paper next examines eleven principal systems of the 1960's. These cannot be identified beyond a letter designation.



By Joseph P. Mastrangelo—The Washington Post

Thus, in the chart, A1 is the first version of a plane or missile; A2 is the second version, possibly one for a sister service; A3 is the third version and so on. B1 is the first version of an entirely different system; so are C1, D1 and E1.

To make the best possible case for the Pentagon and its contractors, this survey does not include two systems costing \$2 billion that performed so badly they were killed off. The eleven systems of the 1960's evaluated here account for more than half of those begun in the most recent decade and their electronic hearts cost well in excess of \$100 million each.

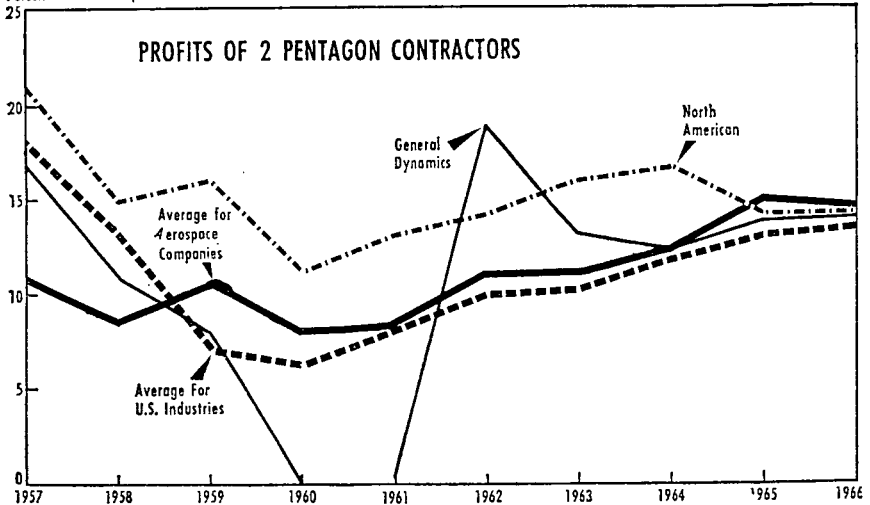
Of the eleven systems, only two perform to standard. One breaks down 25 per cent more rapidly than promised; two break down twice as fast and six, four times as fast.

As a group, the eleven average a breakdown more than twice as fast as the specifications demand. Oddly enough, the first version of the system designated as "A" met the standard. But the same unidentified contractor produced three succeeding versions that fail on the average more than three times as often as they should. All these successors, the paper observes, were ordered on a "pressure cooker" basis, on crash schedules.

HIGHEST REWARDS

The paper also examines the relationship between contractors' profits and performance, and suggests that, contrary to what might be expected, some of the most inefficient firms doing business with the Pentagon earn the highest rewards.

Percent Return on Capital Invested (After Taxes)



By Ken Burgess—The Washington Post

During this ten-year period, General Dynamics built seven weapons systems and none measured up to expectations. North American was responsible for six and one met specifications, one was canceled and four broke down four times as rapidly as provided in their contract specifications.

The second chart looks at profits, after-tax returns as a percentage of investment, the only valid basis for determining profitability, for the ten years from 1957 through 1966. During the decade, the aerospace firms managed to earn consistently more than American industry as a whole, piling up nine dollars (or billions of dollars) in profits for every eight garnered by companies not doing business with the Pentagon.

Even more peculiar is the brilliant earnings record of two of the biggest contractors, North American and General Dynamics. Both, except for a brief period when General Dynamics tried its hand at some civilian business, made profits far above the industrial average and generally in excess of their colleagues in aerospace.

During the ten years, North American did all but two percent of its business with the Government. The study reports that it produced one highly successful plane in the mid-50's, another system that met performance specifications, one that was canceled and four that broke down four times as frequently as promised. Nevertheless, the company's profits were 40 per cent above those of the aerospace industry and 50 per cent above the average for all industries.

NONE MEASURES UP

General Dynamics had, as the chart shows, a much more uneven profits record. But its years of disaster and even losses were those when it ventured into the economically colder climate of the civilian world to produce a commercial

jet airliner. Having learned its lesson, it retreated to the warmer regions of defense procurement and, in recent years, has netted more than the industry average. It has compiled this happy earnings score, the study observes, despite the fact that none of the seven weapons systems it built for the Pentagon "measured up to expectations." Its most notorious failure is the F-111 swing-wing fighter-bomber.

As a final touch, the study notes that complex electronic systems typically cost 200 to 300 per cent more than the Pentagon expects and generally are turned out two years later than promised. But both of these phenomena have been examined so frequently by specialists in the field that the paper does not dwell on them.

HOW MUCH PROTECTION?

These findings raise some serious questions. Perhaps the most important is how much protection the United States is getting for the tens of billions of dollars invested in expensive weaponry. Another is whether the whole process should be turned off and improvements made in the existing devices. Secretaries of Defense have repeatedly assured the Nation that present weaponry guarantees the destruction of any Nation that attacks the United States.

The document under study here, however, takes a different line, one aimed at getting less costly weapons that measure up to the promised performance.

It blames the dismal record on several factors. One is the relentless search for newer and more complicated electronic "systems." The aerospace contractor has an obvious vested interest in promoting "breakthrough" gadgetry. This is the way he gets new, and clearly profitable business.

CLOSE CORRELATION SHOWN

But the study asks, do the services need it? Since the Air Force and the Navy almost always accept a plane or a missile that performs a fraction of its promised standard, it would appear from an exclusively military standpoint that a device of a much lower order of performance fits the Nation's defense needs.

The document also shows a close correlation between "crash" programs and poor performance. Thus, it proposes more realistic schedules. If a weapon is wanted in short order, five years or less, the study recommends that its electronic gadgetry be limited to familiar items.

If the Pentagon wants something that makes a "technical breakthrough," it should allow a minimum development period of five to seven years, it is pointed out.

Another factor in poor performance, the study says, is the absence of competition for new systems after the initial designs are accepted. Typically, the Pentagon requires five or so aerospace firms to bid on its original proposal. But typically, it selects one winner on the basis of blueprint papers. The study says that the military could save more money and get a better product if it financed two competitors to build prototypes after the design stage. Such a technique was followed, it recalls, with the F-4, a supersonic Navy interceptor. Even though the F-4 employed both a new radar and a new computer, it performed up to the promised standard.

At first glance, such a technique might seem like throwing good money after dubious dollars. But the study contends that if two aerospace competitors are forced to build and fly prototypes before they win the big prize—the contract to produce a series of planes or missiles—they will be under a genuine incentive to be efficient, hold costs down and make things that work.

TOTAL FEDERAL GOVERNMENT BUDGET OUTLAYS BY FUNCTIONS AND SUBFUNCTIONS EXPRESSED ON A PER CAPITA BASIS AND AS A PERCENT OF TOTAL OUTLAYS,
FISCAL YEARS 1965-70

[Amounts and percentages shown in parentheses are negative figures]

	1965		1966		1967		1968		1969 (estimate)		1970 (estimate)	
	Per capita	As percent of total	Per capita	As percent of total	Per capita	As percent of total	Per capita	As percent of total	Per capita	As percent of total	Per capita	As percent of total
Total Federal budget outlays (expenditures and net lending).....	\$612.10	100	\$687.49	100	799.31	100	\$893.20	100	\$908.26	100	\$956.00	100
BUDGET OUTLAYS BY MAJOR FUNCTIONS AND SUBFUNCTIONS												
National defense.....	256.24	41.86	289.92	42.17	353.75	44.26	402.08	45.02	400.48	44.09	399.21	41.76
Special Southeast Asia operations.....	53.08	8.66	29.67	4.32	101.63	12.71	132.57	14.84	142.45	15.68	124.43	13.01
International affairs and finance.....	22.43	3.66	22.92	3.33	22.95	2.87	23.07	2.58	19.47	2.14	18.38	1.92
Conduct of foreign affairs.....	1.79	.29	1.61	.23	1.70	.21	1.77	.20	1.84	.20	1.88	.20
Economic and financial assistance.....	10.55	1.72	11.89	1.73	15.43	1.93	15.25	1.71	12.49	1.38	12.07	1.26
Special Southeast Asia assistance.....	(1)	(1)	1.44	.21	2.14	.27	1.46	.16	1.88	.21	1.64	.17
Foreign information and exchange activities.....	1.15	.18	1.16	.17	1.24	.15	1.25	.14	1.21	.13	1.16	.12
Food for freedom.....	9.57	1.56	9.11	1.32	7.33	.92	6.01	.67	5.13	.56	4.53	.47
Deductions for offsetting receipts.....	(.64)	(.10)	(.84)	(.12)	(2.74)	(.34)	(1.22)	(.14)	(1.20)	(.13)	(1.25)	(.13)
Space research and technology.....	26.31	4.30	30.29	4.41	27.37	3.42	23.58	2.64	21.00	2.31	19.32	2.02
Agriculture and agricultural resources.....	24.84	4.06	18.78	2.73	22.09	2.76	29.68	3.32	26.94	2.97	25.36	2.65
Farm income stabilization.....	16.71	2.73	9.86	1.43	12.80	1.60	19.65	2.20	22.29	2.45	19.20	2.00
Financing farming and rural housing.....	2.96	.48	3.56	.52	3.62	.45	3.89	.44	(1.66)	(.18)	(.60)	(.06)
Financial rural electrification and rural telephones.....	1.11	.18	1.09	.16	1.23	.15	1.51	.17	1.74	.19	1.86	.19
Agricultural land and water resources.....	1.77	.29	1.77	.26	1.78	.22	1.75	.20	1.75	.19	1.72	.18
Research and other agricultural services.....	2.51	.41	2.71	.39	2.88	.36	3.09	.35	32.4	.36	3.38	.35
Deductions for offsetting receipts.....	(.22)	(.04)	(.22)	(.03)	(.22)	(.03)	(.21)	(.03)	(.43)	(.05)	(.18)	(.02)
Natural resources.....	10.66	1.74	10.39	1.51	9.39	1.17	8.50	.95	9.38	1.03	9.26	.97
Water resources and power.....	9.65	1.58	10.52	1.53	10.81	1.36	11.24	1.26	11.27	1.24	11.46	1.20
Land management.....	2.63	.43	2.84	.41	3.12	.39	3.19	.36	3.28	.36	3.16	.33
Mineral resources.....	.30	.05	.32	.05	.37	.05	.42	.05	.43	.05	.40	.04
Fish and wildlife resources.....	.70	.10	.67	.10	.69	.09	.78	.09	.81	.09	.80	.09
Recreational resources.....	.63	.11	.78	.11	.98	.12	1.14	.13	1.59	.17	1.82	.08
General resource surveys and administration.....	.40	.06	.44	.06	.46	.06	.50	.06	.52	.06	.54	.06
Deductions for offsetting receipts.....	(3.65)	(.60)	(5.19)	(.75)	(7.13)	(.89)	(8.78)	(.98)	(8.50)	(.94)	(8.92)	(.93)
Commerce and transportation.....	38.06	6.22	36.43	5.30	38.63	4.83	40.33	4.52	39.79	4.38	43.91	4.59
Air transportation.....	4.52	.74	4.49	.65	4.77	.60	4.75	.55	5.66	.62	6.52	.68
Water transportation.....	3.76	.61	3.61	.53	3.86	.48	4.21	.47	4.38	.48	4.58	.48
Ground transportation.....	21.15	3.46	20.64	3.00	20.66	2.58	21.81	2.44	21.39	2.36	24.88	2.60
Postal service (postal deficit).....	4.16	.68	4.53	.66	5.76	.72	5.39	.60	4.59	.51	2.70	.28
Advancement of business.....	1.89	.31	1.58	.23	1.46	.18	1.97	.22	3.37	.04	12.27	.13
Area and regional development.....	2.88	.47	1.61	.23	2.10	.26	2.50	.28	3.49	.38	3.82	.40
Regulation of business.....	.51	.08	.51	.07	.60	.07	.49	.05	.54	.06	.59	.06
Deductions for offsetting receipts.....	(.81)	(.13)	(.55)	(.08)	(.58)	(.07)	(.79)	(.09)	(.62)	(.07)	(.47)	(.05)

Community development and housing.....	1.49	.24	13.50	1.96	13.20	1.65	20.35	2.28	11.44	1.26	13.57	1.42
Concentrated community development.....	.26	.04	1.54	.22	2.28	.29	3.24	.36	3.62	.40	5.95	.62
Community environment.....	1.71	.28	1.86	.27	2.35	.29	2.43	.27	3.96	.44	4.82	.50
Community facilities.....	.24	.04	.19	.03	.37	.05	.53	.06	.95	.10	1.01	1.11
Community planning and administration.....	.16	.03	.08	.01	.17	.02	.18	.02	.30	.03	.38	.04
Low and moderate income housing aids.....	.42	.07	2.00	.29	2.41	.30	4.73	.53	4.62	.51	5.54	.58
Maintenance of the housing mortgage market.....	(1.22)	(.20)	7.89	1.15	5.72	.72	9.30	1.04	(1.73)	(.19)	(4.14)	(.43)
Deductions for offsetting receipts.....	(.05)	(.01)	(.06)	(.01)	(.10)	(.01)	(.06)	(.01)	(.29)	(.03)	(.01)	(.01)
Education and manpower.....	12.97	2.12	22.95	3.34	30.97	3.87	35.02	3.92	35.43	3.90	38.61	4.04
Elementary and secondary education.....	2.47	.40	8.40	1.22	11.54	1.44	12.13	1.36	10.79	1.19	11.62	1.22
Higher education.....	2.13	.35	3.58	.52	5.85	.73	6.95	.78	6.76	.74	6.69	.70
Vocational education.....	.68	.11	.69	.10	1.26	.16	1.32	.15	1.25	.14	1.30	.14
Manpower training.....	1.74	.28	3.73	.54	4.74	.59	6.31	.71	7.47	.82	8.25	.86
Science education and basic research.....	1.60	.26	1.88	.27	2.09	.26	2.24	.25	2.37	.26	2.45	.26
Other education and manpower aids.....	4.39	.72	4.72	.69	5.54	.69	6.13	.69	6.85	.75	8.40	.88
Deductions for offsetting receipts.....	(.05)	(.01)	(.06)	(.01)	(.06)	(.01)	(.08)	(.01)	(.07)	(.01)	(.09)	(.01)
Health and welfare.....	140.63	22.97	159.91	23.26	189.82	23.75	217.27	24.32	241.47	26.59	269.10	28.15
Health.....	9.03	1.48	13.01	1.89	35.69	4.46	48.44	5.42	56.10	6.18	63.49	6.64
Medical research.....	()	()	()	()	5.12	.64	5.57	.62	4.98	.55	5.57	.58
Health facilities.....	()	()	()	()	()	()	1.39	.16	1.31	.14	1.62	.17
Health manpower.....	()	()	()	()	()	()	2.04	.23	2.55	.28	3.02	.32
Organization and delivery of health services.....	()	()	()	()	.22	.03	.28	.03	.50	.05	.79	.08
Direct health care.....	()	()	()	()	.80	.10	.85	.09	.99	.11	1.03	.11
Medicare.....	()	()	()	()	17.14	2.14	26.63	2.98	30.76	3.39	33.54	3.51
Medicaid and other financing.....	()	()	1.03	.15	6.90	.86	9.91	1.11	12.82	1.41	15.67	1.64
Disease prevention and control.....	()	()	()	()	()	()	1.18	.13	1.17	.17	1.52	.16
Environmental control and consumer protection.....	()	()	()	()	()	()	.41	.05	.49	.05	.60	.06
Other health services.....	()	()	()	()	()	()	.17	.02	.12	.01	.12	.01
Income security programs.....	129.78	21.20	143.50	20.87	149.65	18.72	163.97	18.36	179.34	19.75	198.30	20.74
Old-age, survivors, and disability insurance.....	90.24	14.74	105.72	15.38	109.66	13.72	115.93	12.98	132.31	14.57	144.53	15.12
Unemployment insurance.....	16.18	2.64	13.72	2.00	11.05	1.38	10.70	1.20	11.96	1.32	12.23	1.28
Civil service retirement and disability.....	7.43	1.21	8.61	1.25	9.92	1.24	13.08	1.46	8.67	.95	12.00	1.32
Railroad retirement.....	6.12	1.00	6.36	.93	6.64	.83	668	.75	7.38	.81	7.77	.81
Other retirement and social insurance programs.....	()	()	()	()	()	()	(.23)	(.03)	(.64)	(.07)	(.63)	(.07)
Public assistance welfare.....	()	()	()	()	15.35	1.92	17.54	1.96	19.33	2.13	21.38	2.24
Other welfare programs.....	()	()	()	()	()	()	.27	.03	.34	.04	.41	.04
Social and individual services.....	2.83	.46	3.95	.58	4.79	.60	4.96	.56	6.05	.67	7.31	.77
Vocational rehabilitation.....	.71	.12	1.03	.15	1.32	.16	1.68	.19	2.12	.23	2.79	.29
Food and nutrition.....	()	()	()	()	()	()	2.52	.28	3.08	.34	3.52	.37
Mental retardation.....	()	()	()	()	()	()	()	()	.03	(.01)	.11	.01
Aging.....	()	()	()	()	()	()	.06	.01	.09	.01	.14	.01
Child welfare and juvenile delinquency.....	()	()	()	()	()	()	.29	.03	.29	.03	.26	.03
Other social and individual services.....	()	()	()	()	()	()	.40	.05	.44	.05	.50	.05
Deductions for offsetting receipts.....	(1.02)	(.17)	(.57)	(.08)	(.31)	(.04)	(.09)	(.01)	(.01)	(.01)	(.01)	(.01)
Veterans benefits and services.....	29.57	4.83	30.23	4.40	34.81	4.36	34.37	3.85	38.03	4.19	37.81	3.96
Interest.....	53.53	8.75	57.62	8.38	63.54	7.95	68.63	7.68	75.01	8.26	78.12	88.17
General government.....	11.76	1.92	12.05	1.75	13.04	1.63	13.14	1.47	14.58	1.60	16.03	1.68
Legislative functions.....	.73	.12	.81	.12	.84	.11	.90	.10	.98	.11	.98	.10
Judicial functions.....	.39	.06	.40	.06	.44	.05	.47	.05	.52	.06	.57	.06

Footnotes at end of table, p. 102.

**TOTAL FEDERAL GOVERNMENT BUDGET OUTLAYS BY FUNCTIONS AND SUBFUNCTIONS EXPRESSED ON A PER CAPITA BASIS AND AS A PERCENT OF TOTAL OUTLAYS,
FISCAL YEARS 1965-70—Continued**

[Amounts and percentages shown in parentheses are negative figures]

	1965		1966		1967		1968		1969 (estimate)		1970 (estimate)	
	Per capita	As percent of total	Per capita	As percent of total	Per capita	As percent of total	Per capita	As percent of total	Per capita	As percent of total	Per capita	As percent of total
Executive direction and management.....	.12	.02	.12	.02	.13	.02	.13	.02	.16	.02	.17	.02
Central fiscal operations.....	4.36	.71	4.52	.66	4.89	.61	5.11	.57	5.48	.60	5.76	.60
General property and records management.....	2.92	.48	2.81	.41	3.11	.39	2.84	.32	3.08	.34	3.12	.33
Central personnel management.....	.89	.15	.89	.13	.95	.12	1.05	.12	1.03	.11	1.03	.11
Law enforcement and justice.....	1.89	.31	1.97	.29	2.15	.27	2.26	.25	2.66	.29	3.63	.38
National Capital region.....	.32	.05	.37	.05	.42	.05	.52	.06	.74	.08	1.15	.12
Other general government.....	.98	.16	.98	.14	1.10	.14	1.21	.14	1.36	.15	1.11	.12
Deductions for offsetting receipts.....	(.85)	(.14)	(.82)	(.12)	(1.00)	(.13)	(1.36)	(.15)	(1.46)	(.16)	(1.49)	(.16)
Allowances for:												
Civilian and military pay increase.....											13.71	1.43
Contingencies.....									.49	.05	1.71	.18
Undistributed intragovernmental transactions:												
Government contributions for employee retirement.....	(7.20)	(1.18)	(7.73)	(1.12)	(8.75)	(1.10)	(9.47)	(1.06)	(10.41)	(1.15)	(10.71)	(1.12)
Interest received by trust funds.....	(9.20)	(1.50)	(9.79)	(1.42)	(11.48)	(1.44)	(13.35)	(1.50)	(14.83)	(1.63)	(17.42)	(1.82)

¹ Not available (a breakdown of comparable data for these subfunctions is not published).

² Less than \$500,000.

³ Less than $\frac{1}{2}$ of $\frac{1}{100}$ of 1 percent. Thus, this amounts to less than $\frac{1}{2}$ of 1 cent in each \$100 of Federal outlays.

Source: U.S. Bureau of the Budget. Budget document for fiscal year ending June 30, 1970.

**TABLE 1.—FEDERAL GOVERNMENT OUTLAYS BY MAJOR FUNCTIONS AND SOME SELECTED SUBFUNCTIONS EXPRESSED AS A PERCENT OF GROSS NATIONAL PRODUCT (GNP),
FISCAL YEARS 1961-70**

	1961	1962	1963	1964	1965	1966	1967	1968	1969 (estimate)	1970 (estimate)
Gross national product (GNP) (billions of dollars).....	506.5	542.1	573.4	612.2	654.2	720.7	766.5	822.6	893.0	1940.0
Total Federal budget outlay (millions of dollars).....	97,802	106,830	111,314	118,585	118,431	134,654	158,352	178,862	183,701	195,272
As percent of GNP.....	19.31	19.71	19.41	19.37	18.10	18.68	20.66	21.74	20.57	20.77
Federal budget outlays by functions, as percent of GNP:										
National defense.....	9.35	9.43	91.1	8.75	7.58	7.88	9.14	9.79	9.07	8.67
Special Southeast Asia costs.....					.02	.85	2.63	3.23	3.23	2.70

International affairs and finance .....	.66	.83	.72	.67	.66	.62	.59	.56	.44	.40
Economic and financial assistance .....	.37	.43	.34	.39	.31	.32	.40	.37	.28	.26
Food for Freedom .....	.36	.36	.36	.33	.28	.25	.19	.15	.11	.10
Space research and technology .....	.15	.23	.45	.68	.78	.82	.71	.57	.48	.42
Agriculture and agricultural resources .....	.66	.76	.90	.85	.73	.51	.57	.72	.61	.55
Farm income stabilization .....	.43	.53	.65	.62	.49	.27	.33	.48	.50	.42
Research and other agricultural services .....	.07	.07	.07	.07	.07	.07	.07	.08	.07	.07
Natural resources .....	.31	.31	.26	.32	.32	.28	.24	.21	.21	.20
Commerce and transportation	1.00	1.00	1.00	1.06	1.13	.99	1.00	.98	.90	.95
Air transportation .....	.14	.14	.14	.14	.13	.12	.12	.12	.13	.14
Water transportation .....	.11	.12	.12	.11	.11	.10	.10	.10	.10	.10
Ground transportation .....	.52	.52	.53	.60	.63	.56	.53	.53	.48	.54
Postal service (postal deficit) .....	.18	.15	.13	.09	.12	.12	.15	.13	.10	.06
Area and regional development .....	.04	.02	.04	.09	.09	.04	.05	.06	.08	.08
Community development and housing .....	.04	.11	.15	.03	.04	.37	.34	.50	.26	.30
Education and manpower .....	.29	.31	.30	.33	.38	.62	.80	.85	.80	.84
Elementary and secondary education .....	.07	.06	.07	.07	.07	.23	.30	.30	.24	.25
Higher education .....	.06	.06	.07	.06	.06	.10	.15	.17	.15	.15
Vocational education .....	.01	.01	.01	.01	.02	.02	.03	.03	.03	.03
Manpower training .....			.01	.02	.05	.10	.12	.15	.17	.18
Science education and basic research .....	.03	.03	.04	.05	.05	.05	.05	.05	.05	.05
Other education and manpower aids .....	.13	.15	.10	.12	.13	.13	.14	.15	.16	.18
Health and welfare	4.31	4.31	4.41	4.34	4.16	4.35	4.91	5.29	5.47	5.85
Health .....	.18	.21	.25	.29	.27	.35	.92	1.18	1.27	1.38
Income security payments	4.07	4.03	4.17	4.04	3.84	3.90	3.87	3.99	4.06	4.31
Social and individual services .....	.07	.07	.08	.08	.08	.11	.12	.12	.13	.16
Veterans benefits and services	1.12	1.04	.96	.93	.87	.82	.90	.84	.86	.82
Interest	1.60	1.53	1.61	1.60	1.58	1.57	1.64	1.67	1.70	1.70
General government .....	.30	.31	.32	.34	.35	.33	.34	.32	.33	.35
Legislative functions .....	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
Judicial functions .....	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
Central fiscal operations .....	.12	.12	.13	.13	.13	.12	.13	.12	.12	.13
General property and records management .....	.07	.07	.07	.09	.09	.08	.08	.07	.07	.07
Central personnel management .....	.03	.03	.02	.03	.03	.02	.02	.03	.02	.02
Law enforcement and justice .....	.06	.06	.06	.05	.06	.05	.06	.05	.06	.08
Contingencies and civilian and military pay increases .....									.01	.34
Undistributed intragovernmental transactions:										
Government contributions for employee retirement	-.21	-.21	-.21	-.22	-.21	-.21	-.23	-.23	-.24	-.23
Interest received by trust funds	-.28	-.27	-.26	-.26	-.27	-.27	-.30	-.33	-.34	-.38

¹ All data for fiscal years 1969 and 1970 are based on estimates contained in the budget document, except for the gross national product for fiscal year 1970. The GNP for fiscal year 1970 is an unofficial estimate.

² Total budget outlays of the Federal Government represent total expenditures plus loans granted minus loans repaid. Many of the outlays related to the community development and housing function

are made in the form of loans; therefore, whenever loans repaid exceed loans granted plus expenditures made in any given year, the outlay amount is expressed as a negative figure.

Note: The data on which these percentages are based may be found in tables 17 and 19, pages 527-530 and 532 of the budget document.

Source: U.S. Bureau of the Budget. Budget document for fiscal year ending June 30, 1970.

CQ FACT SHEET ON DEFENSE SPENDING CUTS—DEFENSE BUDGET CUTS OF \$10.8 BILLION SEEN FEASIBLE

Defense experts both in and outside the Government have told Congressional Quarterly that huge cuts can be made in the defense budget while retaining or even improving the current level of the nation's defense.

Highly placed sources in the Pentagon and industry told CQ that cuts totaling at least \$10.8 billion could be made in areas they classified as "fat." None of the cuts would affect U.S. combat capabilities, they said. Instead, only logistical elements they view as excessive and weapon systems they consider overlapping, unnecessary or of doubtful combat effectiveness would be cut back.

Although numerous officials in the Pentagon favor the massive cuts, the actual decisionmakers remain unconvinced. Defense Secretary Clark M. Clifford told a June 20 press conference that the Administration probably would impose defense spending cuts of \$2 to \$3 billion as part of the \$6-billion reduction ordered by Congress as the price of enactment of President Johnson's coveted tax increase. One Pentagon source who favors the higher cuts told CQ it was surprising that Clifford would accept any reductions at all, in view of "pressures from the military and defense industries to keep the budget intact."

In addition to the logistical support, the major areas cited by sources as "fat" include the new antiballistic missile system (ABM), "unnecessarily sophisticated" equipment in both Air Force and Navy aircraft, an expensive air defense system deployed against what sources see as "weak and outmoded" Soviet bomber forces, the Army's helicopter program and antisubmarine carrier task forces of high cost and, sources said, "dubious" combat effectiveness.

One Pentagon civilian said these areas tied down "fantastic amounts of manpower despite the generally low level of combat effectiveness they afford. Cutting them back in many cases actually would improve the nation's defense. Not only would additional manpower be freed for direct combat needs, but the mobility of U.S. forces would be enhanced by the lack of extraneous equipment and a sluggish logistical tail." By "de-escalating sophistication," he concluded, "we could escalate combat effectiveness."

In view of the Government's financial crisis, another official said, it would "border on the irresponsible if these programs are not cut back. These areas should be cut anyway, but in view of the nation's other pressing needs, the case is overwhelming."

Another Pentagon civilian said other funds might be saved by deferring desirable projects until later fiscal years. The source said there were "a lot of nice things the military would like to have and probably should have under normal circumstances. But with the dollar under attack, we can't just go on with business as usual. For the next year, at the very least, we've got to drive a Volkswagen instead of a Cadillac."

Sources emphasized that the cuts not only would mean dollar savings but also balance-of-payments gains. Cuts affecting overseas forces would be worth direct payments savings of almost \$1 billion. As the spending cuts cool the economy, they said, there would be further payments savings due to returns of capital which had flowed abroad to escape the U.S. inflation.

Clifford has not yet spelled out which areas will be cut to make up the planned reductions of \$2 to \$3 billion. Sources told CQ, however, that the most likely action will be deferral of weapon systems rather than stripping programs they consider "fat." Some of the items Clifford reportedly is considering include the Navy's \$1.7 billion shipbuilding program, the Air Force's military space project, formation of a new 6th Army division, and new air defense missiles.

What follows is a compilation of major areas in which substantial cuts are thought feasible without reduction in the country's military strength; it is the result of detailed interviews in each area with numerous defense industry experts, civilian and military officials. The Administration's justification for funding each program also is presented.

BREAKDOWN OF PROPOSED CUTS

Following is a compilation of cuts that a consensus of CQ's sources feel could be made in the fiscal 1969 defense budget without diminishing U.S. combat capabilities (*for details and Administration justifications, see text*). Figures in parentheses are subtotals.

<i>Item</i>	<i>Suggested cut (millions)</i>
Antiballistic missile system (ABM)-----	\$1, 100
Bomber defense system (SAGE)-----	1, 000
Surface-to-air missiles-----	850
Manpower-----	4, 200
Army-----	2, 200
Navy-----	900
Air Force-----	675
Marine Corps-----	400
Tactical aircraft programs-----	1, 800
Army-----	510
Navy-----	635
Air Force-----	700
Antisubmarine carrier forces-----	400
Attack carrier forces-----	360
Amphibious forces and fast deployment logistic ships (FDL's)-----	500
Manned Orbiting Laboratory-----	600
Total-----	10, 800

STRATEGIC FORCES

ABM System. Probably one of the most clear-cut items of "fat," in the view of most of CQ's sources, was the ABM system, designed to protect the nation against an intercontinental ballistic missile attack. Currently programmed for a "thin" deployment (termed "Sentinel") to defend against a small attack, the ABM employs nuclear-tipped missiles to seek out and destroy enemy missiles in the upper atmosphere. CQ's sources doubt the system will have any chance of working against a realistic attack; consequently, they would cut the fiscal 1969 request figure of \$1.2 billion for ABM deployment and development down to \$100 million for further development work. In addition, they would cut back some \$200 million more that was appropriated for ABM deployment in previous fiscal years but not yet spent. (About \$200 million more in previously appropriated deployment money already is obligated.) The funds were the first installment on a total installation cost of \$5 to \$7 billion for the "thin" ABM deployment; subsequent expansion of the system to a "heavy" shield would cost an estimated \$40 to \$50 billion.

The sources listed several reasons for opposing the system: (1) because of the nuclear test ban treaty, the ABM has not yet been tested in the atmosphere; thus, they said, there is no assurance that the system's radars or its tracking and guidance systems will survive the first blast the ABM sets off; (2) counter-measures on the part of an enemy would be relatively simple; there are many devices to confuse a radar system, particularly the use of a number of dummy targets; and (3) thus far, the United States has been unable to attain acceptable reliability with far simpler missile systems designed for anti-aircraft use. In simulated combat tests, these missiles have shown both a low level of readiness and a poor "kill" ratio. "With missile technology in its current state," one Pentagon civilian said, "an effective ABM would be worth almost any price we would have to pay for it. But for the present we can make greater strides in that direction by spending small sums of money to advance technology until we have a really useful capability, rather than spending a lot to produce hardware that we know won't work."

Administration Position—After opposing ABM deployment for years, then Defense Secretary Robert S. McNamara late in 1967 gave in to pressures by Congress, the military and industry, and ordered the system deployed. In his speech announcing the deployment, McNamara said there were “marginal grounds for concluding that a light deployment of U.S. ABMs against (Red China) is prudent.” McNamara warned, however, that “if we . . . opt for heavy ABM deployment—at whatever price—we can be certain that the Soviets will react to offset the advantage we would hope to gain.” McNamara concluded that the nation must “resist that temptation firmly,” because the “greatest deterrent against such a strike is not a massive, costly, but highly penetrable ABM shield, but rather a fully credible offensive assured destruction capability.” (*For McNamara statement, see 1967 Almanac p. 966.*)

In recent weeks McNamara's successor, Clark Clifford, has argued far more vigorously than McNamara for installing the ABM. Clifford June 19 sent a letter to Senate Armed Services Committee Chairman Richard B. Russell (D Ga.) warning that it would be a “serious mistake” for the Senate to turn down the Sentinel deployment. Clifford's letter placed new emphasis on the potential of the system to protect U.S. offensive missile sites from Soviet attack or to limit damage from an accidental Soviet firing.

In a press conference, the following day, Clifford said the system now had “real significance” vis-a-vis the Soviet Union. Citing U.S. intelligence reports that the Soviets were installing such a system, Clifford said the United States would be “in a better position to reach agreement with them on an ultimate step toward disarming if we also go about the deployment of a system.” Clifford did not spell out, however, whether that would involve escalation to the level of a “heavy” ABM.

Senate ABM Hassle—The year's first skirmish over the ABM came in the Senate in April during consideration of the fiscal 1969 defense procurement bill (S 3293). By a 17-41 roll-call vote, the Senate April 18 rejected an amendment by Gaylord Nelson (D Wis.) to drop the bill's \$342.7 million in Sentinel procurement funds. Later in the day, by a 28-31 roll-call vote, the Senate rejected an amendment by John Sherman Cooper (R Ky.) to prohibit deployment of an ABM system until the Defense Secretary certified that it was “practicable” and that its cost was known “with reasonable accuracy.” (*See votes 81-82, Weekly Report p. 963; for story see p. 904.*)

Opponents of the system were encouraged several weeks later by press reports that the Administration intended to drop the ABM system as part of the \$6-billion economy cut. The reports proved wrong, however, as Clifford launched his vigorous defense of the system. On June 24, the Senate by a 34-52 roll-call vote rejected an amendment by Cooper and Philip A. Hart (D Mich.) to add language to the defense construction authorization bill (HR 16703) prohibiting expenditure of any ABM funds authorized by the bill before July 1, 1969. The Senate then went on to reject, by a 12-72 roll-call vote, an amendment by Stephen M. Young (D Ohio) to delete the bill's authorization of \$227.3 million in ABM construction money. It was expected that the anti-ABM group would renew its attacks on the system when the program later was considered in the appropriations stage.

At one point in debate, Sen. Henry M. Jackson (D Wash.), the bill's floor manager, went beyond Clifford's statement in praising the anti-Soviet capability of the system. Jackson June 19 said some Senators apparently had “taken too literally the public rationale for the system previously given by officials of the Defense Department. As a result, these Senators have missed the most significant feature of the system: it will have definite capabilities for defense against the Soviet missile threat.” Not only would the system defend U.S. missile sites against that threat, Jackson said, but it would also “provide a limited degree of protection of American cities and other strategic forces from Soviet attack, as well as improve our capacity to detect and assess any missile attack.”

Bomber Defense System. Another big item CQ's sources view as unnecessary is the complex warning and intercept system designed for defense against long-range bomber attack. Called SAGE for Semiautomatic Ground Environment, the system employs elaborate radars both to detect incoming bombers and to guide interceptors to shoot them down.

Sources said it was widely accepted in the Pentagon that the Soviet Union no longer could muster an appreciable bomber threat. "Despite intelligence reports that the Soviets have dropped their long-range bomber development effort," one military source told CQ, "we retain the SAGE system as a hedge that they might again shift course. It would make more sense to phase out the SAGE system now and then build up our air defense fighter forces later if the threat should reappear."

As in the case of the ABM system, CQ's technical sources in this area fear SAGE would be subject to a wide range of countermeasures which would render it ineffective against an enemy attack. A higher degree of effectiveness can be attained, these sources said, by phasing out the SAGE system and relying solely on Federal Aviation Administration (FAA) surveillance capabilities and normal U.S.-based fighter squadrons, combat training squadrons and the Air National Guard. One source said this would be a system "based on weapons and detection equipment that maximize kills, not automation." Savings from such a move would be an estimated \$1 billion a year.

Despite the \$18 billion cost of installing the SAGE system, one Pentagon civilian said, the Air Force had been aware of "crippling flaws" in the system ever since the outset of installation in the mid-1950s. "The Air Force apparently felt it should get the system first and then make it work," he said. "A number of costly modifications have failed, and so we're right back where we started." The source noted that the Air Force was about to embark on another costly modification program but predicted it would be no better than previous efforts. Designated AWACS for Airborne Warning and Control System, the project envisions an improved radar system that is claimed to track incoming aircraft at levels far below the present capability. CQ's sources said the AWACS radars would be just as unreliable and vulnerable to countermeasures as are those in the current SAGE system.

Administration Position—McNamara in his 1968 defense posture statement said the Defense Department had conducted extensive studies of the antibomber defense problem and that in all the alternative force structures examined, the "indispensable element" was AWACS. If perfected, McNamara said, AWACS would be important for several reasons: (1) its ability to track aircraft at low altitudes; (2) its ability to provide detection at greater distances from the United States; and (3) its low vulnerability to missile attack compared with the SAGE system.

McNamara conceded, however, that the feasibility of AWACS depended upon the successful deployment of a "downward-looking" airborne radar. Although McNamara said the required technology was "within our reach," he did not comment on the over-all need for a bomber defense system or on the present level of effectiveness.

Surface-to-Air Missiles—CQ's sources said \$850 million per year could be saved by phasing out "ineffective" air defense missiles and deferring heavy hardware development on new missiles. Sources said there was little reason to believe these missiles would work any better in combat than Soviet missiles used by the North Vietnamese, stated in the May 6 issue of *Aviation Week* to have attained a kill ratio of less than 1 percent. According to one military source, "the North Vietnamese have apparently learned much more quickly than we have that their real defense against bombing rests on antiaircraft guns." The source said the current and planned antiaircraft gun units would be "more than enough" for good air defense.

The U.S. missiles, called Hawk, Nike-Hercules and Bomarc, are deployed heavily around U.S. forces in Vietnam, Korea, Europe, Alaska and the continental United States. Like the SAGE system, their performance tests have been so unsatisfactory that they have required constant programs of modification and improvement. Commenting on both the SAGE and the missile programs, one source said "large get-well programs are always a symptom of a basic blunder."

Administration Position—Administration analyses indicate that the "get well" programs should yield substantial reliability improvements. Furthermore, it is felt that the guidance technology of at least the newer U.S. missiles is considerably more sophisticated and advanced than that of the Soviet missiles, even though the U.S. missiles have not yet been demonstrated in combat.

GENERAL PURPOSE FORCES

Manpower. Sources indicated that sums totaling a minimum of \$4.2 billion could be saved by paring "fat" from logistical elements of all the services. (The cost savings of the manpower cuts were figured on the basis of an average annual cost of \$10,000 per serviceman. The figure included the serviceman's salary and allowances, medical care, pension, food, billeting, training, supervision and other supporting expenses.) For each of the services, CQ's sources recommended cuts ranging from 10 to 20 percent, but among most sources, recommendations tended to cluster around the lower figure. For purposes of this study, CQ assumed the lower cut.

One Pentagon civilian told CQ that "anyone who's ever been in the service is aware of the tremendous wastage of manpower—the vast number of support troops who sit around with little or nothing to do. Beyond that, there are tremendous overlapping areas even in functions that keep people busy. By sensible reorganization, massive cuts could be made in the support area and we'd have a better, more streamlined force."

Army. Of the total Army strength of 1,550,000, about 360,000 are in combat units (divisions, brigades, artillery and missile units), 110,000 are transients (men en route between assignments) and 1,080,000 are in additional support roles beyond those already provided in the combat units. Sources agreed that the Army should not be allowed to carry the large transient category but, as a well-placed civilian put it, should have to "take it out of their hide just like a corporation would." Elimination of the transient figure plus a 10-percent cut in support would yield a reduction of 218,000 troops, worth estimated savings of almost \$2.2 billion.

Navy. The Navy lists a total strength of 775,000, including 330,000 assigned to combat units, vessels or air wings, 50,000 transients and 395,000 in support. A reduction of 90,000 including, as a minimum, the elimination of the transient category and a 10-percent cut in support, would mean cost savings of \$900 million.

Air Force. Of total Air Force strength of 900,000, the breakdown includes 270,000 in combat air or missile units, 5,000 transients and 625,000 in the support function. The minimum cut recommended by CQ's sources would mean reductions of 67,500 and savings of \$675 million.

Marines. Current Marine strength is 300,000, with 120,000 in combat ground or air units, 25,000 transients and 155,000 in support. The minimum cut would amount to about 40,000 and savings of \$400 million.

NATO Forces. CQ's sources said it would be desirable to cut back the U.S. commitment to the North Atlantic Treaty Organization (NATO), but most of the sources agreed that as long as the commitment remained, U.S. forces located in Europe added far more strength to the West's posture than they would if brought home and kept in reserve for possible redeployment. One former high-ranking Pentagon civilian told CQ, however, that the United States should press West Germany to provide full logistical support for the U.S. combat forces deployed on German soil. The source said this should be more desirable to the Germans than the present arrangement of German offset purchases of U.S. weapons and probably would mean an even greater balance-of-payments savings for the United States. The source estimated that such an arrangement would enable the United States to pull out an additional 95,000 troops (above the standard 10-percent cut discussed above) and would amount to cost savings of almost \$1 billion a year and \$600 million in balance-of-payments gains. (CQ did not include this item in the value of over-all cuts, however, because it would necessitate an agreement with a foreign government while the other cuts could be undertaken by unilateral Pentagon or Congressional action.)

Administration Position—The Administration has contended that manpower allotments are the results of intensive studies on the requirements of all the forces. Present strength levels, it contends, provide optimum combat support.

Tactical Aircraft. Aviation experts interviewed by CQ said cuts totaling \$1.8 billion could be made in the next fiscal year's aircraft procurement programs, primarily by dropping "elaborate and impractical" electronics systems and buying more austere versions of the craft.

Air Force. Cuts of at least \$700 million could be made in the Air Force program, sources said, by purchasing simpler versions of the \$2.5 million F-4E, the \$8 million F-111D, and dropping production of the \$2.6 million A-7D in favor of the A-37, which costs only \$350,000. Despite their high costs, sources said, the F-4 had failed to provide clear superiority over Soviet fighters and the F-111 was too vulnerable to enemy fighters and anti-aircraft defenses to be useful; consequently, these aircraft should be prime candidates for further cuts. One civilian expert said the A-7 was "neither accurate nor maneuverable enough to be effective in its assigned role of close air support." In the interim, he said, the highly maneuverable, combat-proven A-37 could serve effectively in the close-support role until a new generation of attack aircraft more appropriately tailored to the mission could be built.

Shifting from production of the A-7D to the A-37 would save about \$210 million if the same number of aircraft budgeted for fiscal 1969 were bought. Sources said an additional \$30 million could be saved by dropping the F-4E's "long list of combat-inessential" equipment such as sophisticated navigation and fire control systems. Another \$350 million or more in research and procurement money could be saved, they said, by dropping the \$2-million Mark II electronics system in the F-111D (thus leaving the plane in effect an F-111A). One civilian official said the sophisticated electronics gear in each of the two latter craft would be "highly unreliable, contribute little or nothing to combat effectiveness, and decrease aircraft performance and daily utilization rates." Likewise, \$110 million could be saved by continuing A-7A production rather than introducing the substantially more expensive A-7E, an aircraft termed by one civilian source as "90-percent gold plate."

Several sources also emphasized that great scrutiny should be placed on the F-111A program, which has encountered extensive problems in recent combat tests in Vietnam. Unless the plane begins showing "marked improvement," they said, the program should be cut back until a better aircraft can be developed.

Navy. By applying the above austerity program to the even more complex Navy F-4J electronics systems, sources said fiscal 1969 savings of \$50 million could be attained. They applauded the Senate Armed Services Committee's recent action in denying a \$585 million authorization request for the controversial F-111B program, but they said the Committee committed "the worst possible error" in providing \$287 million for accelerated development of a substitute craft, the VFX-1. A military source termed the VFX a "warmed-over version" of the F-111 which will cost substantially more and perform only slightly better than the plane it would replace. (*For story on the VFX and F-111B, see Weekly Report p. 1007.*)

Army. An area of increasing "fat," sources said, was the Army's helicopter program, and particularly the Hueys and Chinooks that are prevalent in Vietnam. "There are so many of those things in Vietnam," one military source said, "that even a sergeant complains if he has to ride in a truck." Sources recommended that the approximately \$600 million request for helicopters in fiscal 1969 (excluding the Cheyenne helicopter which they would drop) should be scaled back to attrition levels—an approximate buy of 650 helicopters. Savings would be an estimated \$360 million, including \$300 million on the helicopter buy and \$60 million in helicopter operating costs.

Several civilian and military sources said the helicopters had presented a "tremendous logistical burden in Vietnam in terms of fuel, ammunition, spares and manpower." One Pentagon source said the limitations of helicopters had "influenced us heavily toward short one- or several-day operations to the extent that the Army in Vietnam has largely abandoned the mission of holding and patrolling territory."

Sources also recommended dropping the new Cheyenne helicopter—an advanced craft based on a complex missile/gun fire control system, which they say is now slipping badly. One former Pentagon official said the Cheyenne, which costs \$3.1 million, was "the biggest boondoggle the Army ever got dragged into—a complete waste." In a close support attack, he said, it would take the helicopter a minimum of 16 seconds to home in and guide its missile to target. In the meantime, he said, "you'll be blasted out of the sky by every weapon from small arms to tank or anti-aircraft fire. This concept might work if you were up against a

single tank in the desert. But if you're in the midst of a Soviet division, there's just too much around that they can throw back at you." Dropping the Cheyenne program would mean fiscal 1969 savings of about \$150 million in costs of procurement and continuing R and D.

Administration Position—Aircraft Electronics Gear. A military spokesman told CQ that in every case, the aircraft under discussion were equipped with gear "necessary for them to meet their assigned combat roles. Sure, you might gain a maneuverability advantage by removing gear from a plane. But you also pay a penalty. And in these cases, the penalty would far offset the gains."

Helicopters.—The Administration has maintained that more helicopters are necessary to increase U.S. mobility in the war in Vietnam. In the months ahead, it is estimated that helicopter sorties in the war will double to the level of almost 1 million a month.

With regard to the new Cheyenne helicopter, studies have shown that the predicted accuracy of the craft's gun and missile guidance systems add so much to combat effectiveness that they more than compensate for the cost and logistics burdens. Despite the slips, the Administration argues that over-all program risk is so low that the recent production go-ahead is justified.

Antisubmarine Forces.—Another area where a consensus of CQ's sources would make substantial cuts is in the Navy's antisubmarine warfare (ASW) force. Sources said they would eliminate the entire fleet of eight ASW aircraft carriers, whose planes have never been effective in locating or destroying modern submarines in simulated combat exercises. The sources would leave the job to existing attack submarines, destroyers, and high-endurance land-based patrol aircraft. These forces, one military source said, "should be more than enough to carry the full load."

Mothballing the entire ASW carrier force, sources said, would mean savings of at least \$400 million, including \$160 million in carrier operating costs, \$110 million on the 32 other ships associated with the ASW carrier fleet, \$100 million in operating expenses of the ASW aircraft and a large classified allotment for development of a new ASW plane of unprecedented complexity and sophistication—the VSX. (Eventual costs of the VSX program have been estimated at \$2.5 billion.)

Administration Position.—McNamara in his defense posture statement conceded that the present ASW carrier force was a "relatively high-cost system in relationship to its effectiveness." McNamara added, however, that intensive studies had determined that "the advantages and flexibility inherent in such a force would marginally warrant its continuation in the 1970s—provided that its effectiveness could be greatly improved." To make these improvements, McNamara said, would entail "a very expensive undertaking"—the development of "a new and much more capable aircraft," the VSX.

Attack Carrier Forces.—Another large sum of money could be saved. CQ's sources said, by changing the concept of deployment of attack carrier forces. Sources said that by counting on carriers only for quick reaction and an initial power surge, then substituting land-base aircraft for the long haul, it would be possible to mothball three of the 15 carriers currently in use and still meet all the nation's worldwide commitments. The sources added that cutting the force down to 12 carriers also would mean that construction could be deferred on three expensive nuclear-powered carriers programmed for construction over the next six years (estimated total cost: \$2 billion) and that two air wings of the oldest aircraft could be phased out. Savings would amount to \$360 million for the 1969 fiscal year, including \$120 million in carrier operating costs, \$130 million in costs of operating escort ships, \$27 million in air wing operating costs, and about \$85 million in fiscal 1969 advance funding toward the first of the three additional nuclear carriers (plus an unexpended \$50 million for this purpose from fiscal 1968).

CQ's sources said one illustration of "irrationality" in carrier deployment was the current stationing of three carriers in the waters off North Vietnam. One Pentagon source said that "no other aircraft deployment could be more expensive, because we have to keep two carriers in support for every one on line—a total of nine attack carriers tied up in the war. We could phase out six of those carriers by pulling only two out of Vietnam, leaving one there for the purpose

of keeping Naval Air current in combat experience. Then, at far less cost, we could achieve the same aircraft strength by redeploying land-based aircraft from areas through the Pacific."

Since the role of the carrier is to support rapid force buildups rather than sustained operations, another source told CQ, proper utilization would mean "instant availability" of the entire carrier force. "If you keep your carriers ready for quick reaction rather than long deployments," he explained, "you can put almost all of them in action because there's no requirement for support." Noting that chances were "remote" that the United States might invade Russia or China, the source said it was "impossible to dream up enough other contingencies to justify retention of all 15 carriers."

Administration Position—The Administration has not evolved any specific justification for carrier employment concepts or Naval Air force levels. The last change in position was in 1962, when the 15 wings attached to the 15 carriers were reduced to 12, since three carriers were normally in overhaul at any one time.

Amphibious Forces. Because of the lack of real or potential island powers, officials interviewed by CQ think substantial cuts should be made in the number of amphibious assault vessels. One official said "the Soviets are no amphibious power to speak of and neither are the Chinese. Who else could you be fighting that would necessitate a World War II-type landing operation? Although it is clear that our concept of employing the Marines has changed radically, we still maintain a huge amphibious fleet."

Of a total amphibious force of 142 ships, CQ's sources recommended mothballing 50 of the most obsolete, without making any change in the composition of Marine combat forces. Savings would be worth about \$100 million. In addition, they were agreed on dropping \$216 million in the fiscal 1969 budget for a new type of assault ship—the LHA.

In a related matter, sources said they also would drop a new procurement request for fast deployment logistic ships (FDLs)—a mammoth military warehouse designed for deployment off potential trouble spots for possible fast deployment of heavy combat equipment. (Unlike the LHA, the FDL was not an assault vessel but a type of cargo ship. It was designed to support Army forces, whereas the LHA was for the Marines.) Fiscal 1969 savings from eliminating the FDLs would be \$184 million.

Sources said the cuts envisioned in amphibious force strength would leave the capability of simultaneously assaulting with one division team in the Pacific and one brigade in the Atlantic. The lower level of strength, one source said, would be sufficient to stage "a strong show of landing assault force in any island crisis or even a good-sized war."

Administration Position—As in the case of carrier force levels, there appears to be no specific set of situations which form a basis for assault transport requirements. There has only been a general increase in assault shipping to improve the mobility of the Marines.

MOL. A final area deemed ripe for cuts is the Manned Orbiting Laboratory project (MOL)—the Air Force's probe into the military uses of space. One Defense Department official said the Air Force at this stage "has no more idea what they'll do with men floating around in space than NASA (the National Aeronautics and Space Administration) does with its Apollo Applications program. This is one activity that can wait." Postponing MOL would mean fiscal 1969 savings of \$600 million.

Administration Position—The Administration maintains that possibilities still are strong that space may be put to military advantage. McNamara in his defense posture statement said he had insisted that space projects undertaken by the Defense Department "must hold the distinct promise of enhancing our military power and effectiveness" and that they "mesh in all vital areas" with those undertaken by NASA.

OUTLOOK

Sources emphasized that the areas probed by CQ were only the "most glaring examples" of Defense Department "fat." According to one Pentagon source, "A really detailed probe by the Congressional Appropriations Committees would reveal millions if not billions in other possible savings."

Because of political realities, however, most of CQ's Capitol Hill sources thought the defense budget cutters faced a stiff uphill fight. This theme was sounded by Republican Presidential candidate Richard M. Nixon June 23 when he warned it would be "irresponsible and potentially dangerous" for the Administration to consider any defense budget cuts.

Congress' hesitance to question major Pentagon programs was seen June 24 when the Senate voted to proceed with full funding of the ABM. In doing so it went against the advice of Majority Leader Mike Mansfield (D Mont.), among others. Mansfield told his colleagues before the vote, "I think it is up to this institution (Congress) to fulfill its responsibilities to check, to recheck, and not be taken in by what the Joint Chiefs of Staff or the Secretary of Defense . . . say they must have, because we never can satisfy them."

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, OFFICE OF EDUCATION (BUDGET AND MANPOWER DIVISION)

SUMMARY OF FISCAL YEAR 1970 HISTORY

	Fiscal year 1969		Fiscal year 1970				
	Authorization ¹	Appropriation ²	Authorization ¹	Estimate to Department	Department estimate to Budget Bureau	Johnson budget	Nixon amendments
Elementary and secondary education.....	\$3,249,059,274	\$1,475,993,000	\$3,612,054,470	\$1,553,855,000	\$1,558,327,000	\$1,525,876,000	\$1,415,393,000
School assistance in federally affected areas.....	640,112,000	521,253,000	701,593,000	458,502,000	315,167,000	315,167,000	202,167,000
Education professions development.....	352,500,000	95,000,000	445,000,000	146,500,000	116,500,000	105,000,000	95,000,000
Teacher Corps.....	46,000,000	29,900,000	56,000,000	31,100,000	31,100,000	31,100,000	31,100,000
Higher education.....	1,689,428,706	815,444,000	1,981,700,000	1,204,372,000	1,071,188,000	897,259,000	780,839,000
Vocational education.....	482,100,000	248,216,000	766,650,000	444,570,000	350,216,000	279,216,000	279,216,000
Libraries and community services.....	275,300,000	147,144,000	425,100,000	179,675,000	168,375,000	155,625,000	107,709,000
Education for the handicapped.....	243,125,000	79,795,000	321,500,000	111,500,000	100,000,000	85,850,000	85,850,000
Research and training.....	35,000,000	87,452,000	56,000,000	161,755,000	113,200,000	90,000,000	115,000,000
Education in foreign languages and world affairs.....	56,050,000	18,165,000	120,000,000	29,500,000	24,000,000	20,000,000	20,000,000
Research and training (special foreign currency).....	(³)	1,000,000	(³)	7,500,000	4,000,000	4,000,000	1,000,000
Salaries and expenses.....	(³)	40,804,512	(³)	58,412,000	46,725,000	43,375,000	43,375,000

HISTORY OF 1970 BUDGET

Civil rights education.....	(⁴)	\$10,797,000	(⁴)	\$16,500,000	\$13,800,000	\$13,750,000	\$20,000,000
College for Agriculture and the Mechanical Arts.....	\$2,600,000	2,600,000	\$2,600,000	2,650,000	2,600,000	2,600,000	2,600,000
Promotion of Vocational Education Act, Feb. 23, 1917.....	7,161,455	7,161,455	7,161,455	7,161,455	7,161,455	7,161,455	7,161,455
Student loan insurance fund.....	(⁴)	0	(⁴)	10,826,000	10,826,000	10,826,000	10,826,000
Higher education facilities loan fund.....	400,000,000	104,875,000	400,000,000	154,800,000	54,509,000	4,509,000	4,509,000
Total.....	7,479,682,435	3,676,599,967	8,895,358,925	4,579,178,455	3,987,694,455	3,591,314,455	3,221,745,455

¹ Includes indefinite authorizations.

² 1969 appropriation adjusted for comparability with 1970 appropriation structure.

³ Includes proposed supplementals.

⁴ Indefinite.

Chairman PROXMIRE. Thank you Senator Fulbright, for a very moving and eloquent statement, and for helping put this whole problem into perspective.

Senator Fulbright, there are those in the country, including some in very high office, who charge that criticism of military spending or reconsideration of the absolute priority given to the military budget somehow constitutes rejection of the military, constitutes an unpatriotic act which can only weaken this country and its ability to meet its obligations. What is your reaction to that kind of a position?

Senator FULBRIGHT. Mr. Chairman, this is of course not a new phenomenon. I think it is essentially an un-American approach. It is an effort to stifle legitimate discussion of the most fundamental and important public policy. I can think of nothing more anti-American than the attitude that members of the Congress especially, or any citizen for that matter, are not entitled to examine dispassionately and fully the validity of our present policies. To identify the present debate which this committee is engaged in as an attack upon the Armed Forces is an absolute unjustified distortion of the facts. Neither I nor this committee is attacking the military forces of this country. We are questioning the political judgments, the political decisions which have led this country into the quagmire it is now in.

That is what was true in the last administration. I never did question the role of the generals in that context. We know that they have here and there made relatively minor mistakes, and we can always say that a general hasn't been successful in his mission. But they are not responsible for what I am concerned about, the political issues, the decisions now as to whether we move toward negotiations and settlement of the war, whether we move toward the cessation of the arms race, as provided in the recent treaty which the Senate approved overwhelmingly, or whether we don't. These are political decisions, they are not military decisions. The Joint Chiefs, while they may express their views, certainly do not make the decisions.

This is too long an answer, but this is the very core of this problem that we confront, because I and other members of the Senate have been subjected to the charge that we are unpatriotic in not supporting the military. It is setting up a strawman and then accusing us of something that we are not engaged in. We are not primarily engaged in criticism of the military at all. My interest and I believe that of this committee, is in examining the political decisions which lead us into this enormously expensive war.

Chairman PROXMIRE. Thank you for that answer. And I want to say as Chairman of the subcommittee that you certainly express my views on the military. I have the greatest admiration and respect for those serving in the military. They are serving an essential purpose. And I hope and pray that these hearings and other inquiries will make for a more efficient and competent military force.

As for the basic decisions on the size of the military budget, and the size of our military force, and where they are located, and what they do, this is, I will agree, completely a political decision, and has to be made by the President of the United States.

Senator FULBRIGHT. Yes. The decision to have bases all over the world wasn't made by the military people. They may have advised, but it was the President, the Commander in Chief of the military, and his advisers who made those ultimate decisions. And, of course, many of these bases that I have mentioned are now being examined by the subcommittee under Senator Symington. These are a hangover from World War II, when many of them were established. And it is simply inertia—which prevents our cleaning this matter up. Many of them are there and almost forgotten, except that some of them are pleasant places, and they just go on and on without anyone bothering to do much about them. And I think it is our responsibility. And I think the subcommittee that Senator Symington heads is engaged in one of the more important undertakings of this session.

Chairman PROXMIRE. We had a proposal yesterday from Dr. Schultze that the Secretary of State should submit to the Congress each year a posture statement similar to the statement submitted by the Defense Department, which was classified, as I understand it. But the Schultze recommendation was that the statement by the State Department should be unclassified, and should outline the overseas commitments of the United States—I am quoting him now—"review their contribution or lack of contribution to the Nation's vital interest, indicate how these commitments are being affected and are likely to be affected by developments in the international situation, and relate these commitments and interest to the military posture of the United States."

Do you feel that this kind of a posture statement would be useful and could provide the basis for a rational, helpful debate on the military budget?

Senator FULBRIGHT. Yes, I do. The most recent one I have seen was the one filed, I think, in January of this year by the previous Secretary of Defense. I also believe that the Secretary of State ought to make such a résumé.

We have had in our Committee on Foreign Relations what we used to call briefings by the Secretary of State at the beginning of each year. But they were rather informal, usually purely verbal without any serious prepared statements such as the Secretary of Defense gives. I am inclined to think it would be very healthy and very wise for the Secretary of State to do it. But in addition I think the posture statement of the Secretary of Defense ought to be declassified. There is very little in those statements in my opinion that ought not to be made public.

This is part of the reason why there has been no serious debate about our whole military activities, that so much is classified, and many of us who are not on the committees, or for other reasons do not have access to that, simply let it go without any question. And this is why I said in the beginning this inquiry is so important, because you are really questioning the procedures as well as the substance of this military program.

Chairman PROXMIRE. Certainly if we are going to have a determination by the Congress in deciding how much to appropriate, and

whether or not we should sustain and pay for these very, very expensive bases all over the world, the kind of commitment we have, and the proposed manned bomber, and that kind of thing, we would be in a far better position to make a judgment, wouldn't we, if we had an explicit expression from the Secretary of State as to just what he thought our commitments are and should be, and related them to our defense requirements? And then we have some basis. As it is now—to the extent that we have a debate on the military budget, if you can even call it that, and the debate is very brief, at least on the basis of past experience—it is very hard for most Members of the Senate to feel that they can make decisions based on having even the most important facts before them.

Senator FULBRIGHT. I think you are absolutely right. Mr. Chairman. I tried to suggest in my remarks this question: what is really the purpose of the administration in requesting, say, fast logistic ships, supply ships, to be stationed around the world? Is this not consistent only with the explanation, only with the idea that we are going to assume ourselves the burden of keeping the peace? The former Secretary of State used to say it is our responsibility to organize the peace. And when he said it—we used to have these debates in our committee—I tried to elicit just how this should be done. Are we abandoning the United Nations, or are we abandoning the idea that others are involved in keep the peace, or are we going to do it by ourselves?

It is very difficult to make a man answer these questions clearly. It was always indefinite to me. Oh, no, we are not the policemen of the world. They will say, and they still say that. At the same time they request weapons and systems of weapons that to me are consistent only with that objective.

Now, a posture statement and a discussion such as you are talking about would, I think, eventually clarify which way we are going. It is conceivable that my views about the role of this country are quite wrong.

I don't profess infallibility. But I don't think we ought to be projecting our military power all over the world and undertaking to settle every quarrel that breaks out anywhere, to have a ship off Africa if there is a little trouble and moving in and settle that trouble in accordance with our views. I don't think this is the right program. But there are those who think it is. And they may be right. I just don't agree. I think we ought to go the other route, which is the United Nations route, with all its weaknesses. I think that it ought to be collective. I do not think that we have the wisdom and the experience and the manpower, the capacity to run the world and to keep the peace in that sense. If we have big planes which will on a moment's notice—take two or three divisions to every outbreak that may occur, wherever it may be, we will be tempted to do it if we have the capacity.

If we get enough C-5-A's, and if they should happen to fly once they are made, we could send enormous numbers anywhere overnight. And I think that is what they must have in mind. I don't know why they would go to such extremes. But that certainly is consistent with this supply ship idea.

Now, last year, as I understand it, the then chairman of the armed services disapproved of that, and I am not speaking for him, but I think on the ground that I have stated. I understand the plans have been revised. They never give up the idea apparently until the Congress takes very definite action. It worries me a little like the ABM.

Now, we are about to have, maybe, a decision on the ABM. If the decision is put off, it will be revived again when we are in a quieter time. We will be faced with it again unless we do have a decision.

Chairman PROXIMIRE. Senator Percy?

Senator PERCY. Senator Fulbright, you have given us a very helpful comparison on domestic and military spending. One other way of looking at it, assuming that your figure of 55 percent for military spending is right, is that the Federal Government is spending only 12 percent on all education, public welfare and health compared to 55 percent for military spending. So that these figures, I think, when we assess the national priority, should be driven home to the American public. Are you concerned more, as I see from your testimony, with the threat from within the country if we don't rectify and change the priorities of our national spending than you are with any external threat.

Senator FULBRIGHT. Senator Percy, you are absolutely right. This country is so powerful already that I don't think that there is a serious threat externally. But there is a very serious threat which I tried to illustrate to you through these letters. I have had many letters—these are just examples that have come recently—that indicate what I believe to be a very deepseated disillusionment with the way our country is moving, and its sense of values, as illustrated—and stirred up, I may say, by the Vietnamese war. It is not the only thing, but it goes from there to other things. In today's paper there was a story about the most recent catastrophe affecting the Navy. And right next to it was an even worse kind of story about the corruption in the police department of one of our greatest cities.

This happened in Columbus, Ohio, a great city in one of the richest States of our Union, a State which is favored, you might say, certainly above most States in its physical and material endowment. This is a dreadful story—the very agency set up by the community to protect its citizens is subject to bribes. This is the type of thing that is rotten, I think.

This is an illustration of what I mean in saying that we must not have this illusion of omnipotence in going around the world and telling everybody what to do when these conditions exist at home.

These developments are not in accord with the aspirations of the American people. I know that the people generally do not approve of this. They aspire to a different kind of community. But this comes about through neglect, in my view, neglect not only of spending money where it is needed, but from lack of attention. The attention of our leaders is focused upon some far away place and what we must be doing for the South Vietnamese. And no one is paying any attention to what we are doing for the people in Columbus, Ohio.

And in this story it said, of course, Columbus, Ohio, shouldn't be picked out, because it mentioned Nashville and many others.

Senator PERCY. There is a concern expressed, Senator Fulbright, by many that if we just turn inward and develop, say, the Nation at home, that we are becoming isolationists. I think this is wrong. Do you see a direct correlation between running our affairs properly here at home, having a stable country, a country that can have creditable leadership then when we talk abroad, against now trying to spread our expertise around the world while news of our burning cities is being broadcast by satellite?

Senator FULBRIGHT. You put your finger on it exactly, Senator Percy. I don't see how anyone has the nerve, in view of the difficulties we have had, to go give any other country advice. I haven't been abroad recently, and I don't expect to go abroad, because I don't like to try to explain, to be on the defensive about what is going on here, until we do something about it. I think we can do something about it, and we ought to do it. And it is the duty of the Senate and you and me and the rest of us to do what we can. Now, we are going to be accused, as we already have, of being against the military and not being patriotic.

One of the most irritating of all things came out in our hearings. The new Secretary of Defense said that since he has left the Congress and become Secretary, he has the responsibility for the security of this country—the implication being that you and I and other members don't, and we are not concerned. This of course is the worst kind of demagoguery.

We are concerned. The only difference is what is in the interest of the security of this country. I don't think it is in continuing to spend our efforts and to give our attention to building more and more weapons. It is to give attention to the deplorable conditions here at home, to our schools, the daily dissatisfaction shown by our young people. I am not here to say that I approve of violence, but we do surely know that there is something wrong in our schools. This is a most unusual thing, that the young people of our country should be so disillusioned. And I think there is a reason for it. I think what I read from that one young man, who is only 20 years old, is absolutely true. They are disillusioned with the most important aspects of our society, and feel that we have lost regard for the original aspirations of our country as expressed in our great historical documents and by our great leaders in the past.

And I know many people here today want to return to that. It is a question of getting our priorities back. It is the very question that this committee is concerned with, to get back on the track. We can get back on the track in no time. This country can be turned around in a year if we could make up our mind to do what I hope this committee is going to agree should be done, and that is to give attention to the development of our own country, and to minimize the intervention in other peoples' affairs, to quit being a busybody, if you like, in ordinary language.

Senator PERCY. I think the American people have had a chance to see how some of these expenditures abroad do interfere with their own affairs. I don't think I ever received more outraged mail than when President Johnson proposed that because of our expenditures abroad we would have to restrict Americans from travel, that it was unpatriotic to travel abroad, that maybe students or ministers and businessmen ought to be cut back, or if you did go abroad you would be taxed for every day that you were abroad. And we had to back off that policy in a hurry. And yet it is a direct result of our expenditures in Vietnam, and a direct result of our expenditures 23 years after World War II has ended, and our NATO expenditures.

Canada now has cut back its NATO forces on tentative basis a year from now from 10,000 to 7,000, or about two-thirds. Do you feel that as soon as we determine that the Czechoslovakian trend is not a threat to the Western Europe and the United States there will be renewed pressure to cut back U.S. NATO forces?

Senator FULBRIGHT. As far as I am concerned, yes. I was a cosponsor of the move led by Senator Mansfield and others. And I still think that is correct. We have already talked about the significance of the Czechoslovakian incident, it is a tragic affair, it is terrible for the Czechs. I think it was a great mistake in the long run from the Russian's point of view, I think it was a sign of weakness, lack of faith of the Russians in their own professions of communism. I don't see that it indicates any intention to attack Western Europe. Of course, the Russians are in a sense like we are—their danger is internal. It is the dissatisfaction of their own people with the kind of life that is being provided by this kind of government that threatens them.

And the same can be said of us. It is strange what great similarity there is between great and powerful military nations. They all seem to develop the same phobias.

Senator PERCY. Also American business and our economy is suffering tremendously because of our balance-of-payments problems, and year-after-year revision on freedom of investment abroad. I am leaving this weekend, Senator Fulbright, to go to NATO as an individual, a parliamentarian, not back of the administration policy, but to try as forcefully as I can to emphasize to them that I think our NATO forces are in danger if we don't get out of this ridiculous position we are now in where we not only spend billions of dollars out of our budget, but with one country alone, Germany, we incur almost a billion dollar balance-of-payments deficit every year for expenditures we make for the common defense. Western European countries which are affluent and prosperous are not paying their full share now for their own defense. Japan is spending less than 1 percent.

So I hope I have your moral support in the presentation I will be making at Brussels.

Senator FULBRIGHT. You do. You know about that. I think you are quite right.

Senator PERCY. Mr. Chairman, may I have permission to ask one more short question? My time is about up.

Chairman PROXMIRE. Without objection.

Senator PERCY. Do you feel that we should get talks underway with the Soviet Union at the earliest possible moment, that they themselves feel this tremendous economic pressure of military spending, that part of their expenditures are necessitated by our expenditures, and that sensible, reasonable people in both countries ought to get together to see if we can deescalate this cast.

Senator FULBRIGHT. You are absolutely right, Senator Percy. And I thought after the Senate, by an overwhelming majority—I think it was 83 to 15—approved the Nonproliferation Treaty, and the emphasis which was given in the debate to article 6 of that treaty, that we would proceed in good faith to negotiate on the arms race. I would have thought that we would done it long since. And I think we should have. Of course, I think the very next day, instead of announcing the continuation of the ABM, the administration would have been much wiser to say we will put off the ABM and will proceed to talks immediately, as soon as we are prepared, and that should have been by now. And I regret that course wasn't taken.

Senator PERCY. Thank you.

Chairman PROXMIRE. Senator Sparkman?

Senator SPARKMAN. Senator Fulbright, I have enjoyed your statement very much. You know, of course, of the respect that I have for you, even though at times we do not agree. I may say that during my entire time in the Senate I have had the pleasure of sitting beside Senator Fulbright, for a long time in the Banking and Currency Committee, and now for a long time in the Foreign Relations Committee.

By the way, we haven't ratified the Non-Proliferation Treaty yet, have we?

Senator FULBRIGHT. The president has not forwarded it. We in the Senate, of course, approved it and authorized it.

Senator SPARKMAN. But the ratification is really by the President, isn't it?

Senator FULBRIGHT. Yes.

Senator SPARKMAN. And that has not been done?

Senator FULBRIGHT. I do not know why it hasn't been done.

As somebody on our committee said, we hoped it would be done simultaneously with Russia.

Senator SPARKMAN. My understanding is that it is a matter of trying to get simultaneous ratification. But I fully agree with what you say, that we ought to proceed with the arms talks with Russia just as soon as we can. But it is not wholly our fault that we don't do it, is it? Haven't we invited them to talks?

Senator FULBRIGHT. I don't wish to embarrass anybody, and I don't think it is embarrassing. But I understood the Russians last fall were ready to proceed to talks. The last conversation I had with President Johnson was on this subject. And he asked me one day what my view was about his proceeding to talks. I don't mean that I would have had the veto, but he was just asking me my views about it. And I told him he ought to. I think I am correct in saying that he was prepared to

proceed to discuss this matter of arms limitations with the Russians, but that the incoming administration thought it would be more seemly and more appropriate if that was not done until they came in. In other words, I am quite clear in my own mind that the Russians were willing to proceed with discussions last fall, certainly in December.

As a matter of fact, now that you mention it, one of the advisers to the President, in one of our conversations—maybe it was Mr. Rogers, the Secretary of State—said that they simply needed more time to prepare themselves for discussions, was the reason for the delay.

Senator SPARKMAN. Yes.

Senator FULBRIGHT. I believe that was what he said in one of our meetings.

Senator SPARKMAN. I think that is correct.

Now, I want to say that I fully agree on the need for closer scrutiny of the military budget and military expenditures than Congress has given it in the past, and perhaps more than Congress is now able to give it, because of our lack of sufficient personnel, research and matters of that kind. We do not provide for ourselves.

But I think that all of this blame about the military is not to be placed on Congress. I think the American people have supported it. And I know you have heard me say many times that as long as we had the military attached to the foreign aid program we would have no trouble in getting the military provisions through. It was always the economic side that was subject to attack. And you know that that has been true, it is always easy to get the military part through.

I wonder if you remember right at the close of World War II, or shortly thereafter, then Secretary of Defense, I believe our first Secretary of Defense, Louis Johnson—no, Forrestal was first—well, it was Louis Johnson who made an announcement of a cut in the military budget. I am sure it was \$2 billion. And as I recall, it was from either \$16 billion down to \$14 billion, or \$14 billion down to \$12 billion. And the protest that grew out of that, I think, was largely responsible for Louis Johnson's resignation from the Cabinet.

Do you recall that?

Senator FULBRIGHT. I remember there was a great protest by some people about cutting.

I am not an expert on that. Having so little participation with the military in my State, it has never been a matter of primary significance as a Representative from Arkansas. The principal installation in my State was the germ warfare plant, which has never attracted my sympathy very much.

Senator SPARKMAN. You have a great deal of this poison gas.

Senator FULBRIGHT. That is what I mean.

Senator SPARKMAN. I may say it was moved from my hometown out there.

Senator FULBRIGHT. I wondered about that. And you got the missiles, didn't you, you got the missiles and I got the germs.

Senator SPARKMAN. At the close of World War II.

Senator FULBRIGHT. I am not too sure—Senator Symington is our expert in the Foreign Relations Committee on military affairs.

I remember that Mr. Johnson was criticized for that. I don't remember too much about the reasons for it. Stalin was still alive, I believe. There was a good deal of apprehension in the country and the world as long as Stalin was alive. I don't want to leave the impression that there never was any justification for many of the things we have done.

Senator SPARKMAN. I didn't say there was no justification. As a matter of fact, I was pleased when he announced the reduction. But I recall the protest to that development. You say it was because of the apprehension on account of the Russian situation. Do you think that apprehension is any less today?

Senator FULBRIGHT. I think it ought to be.

Senator SPARKMAN. Perhaps it ought to be if we can do the things that you and I would like to see done, if we can get these talks started on arms reduction, and if we could get an active program in the U.N. You and I have supported over the years a program of a peacekeeping force for the U.N. The Senate passed it by unanimous vote, and later both the Senate and the House passed it. And if it became our policy in the U.N.—and I believe we have advocated it in every general session of the U.N., but we haven't been able to get it across—if we could get things like that done, then certainly I think we would be able to move in and make some massive cuts. And I am not suggesting that it can't be done now. But I do think that we have got to keep these things in mind. I think it has got to be done within the framework of existing conditions in the world. And I agree with you wholly that we cannot and ought not to be the world policeman.

And furthermore, I want to see us get out of Vietnam. But I don't believe we can just withdraw and leave it as it is. I put great faith in the negotiations in Paris. I hope that we will get down to negotiating sincerely and strongly and forcefully. But I think we have got to depend on that before we can withdraw.

Now, I heard on the radio this morning that President Nixon will probably announce at Midway that we are going to withdraw 50,000 troops. I think that might be a good thing to do. If we just say we are going to close down and quit suddenly, I think it would be disastrous to the peace talks and disastrous to the peace of the world.

Senator FULBRIGHT. Senator Sparkman, I never have advised that we just drop our arms and run out of Vietnam. I have advised, and I do propose that we do negotiate in good faith. I think the significant part is, what is our purpose, and what shall come out of these negotiations? If we have in mind to create a Vietnamese Government headed by the two generals, and to continue to support them as our sort of representatives there—I don't like to use the word "puppet," it is a pejorative word—but in any case the idea that they are our friends and we are going to keep them in power by giving them an unlimited amount of support and weapons, if we do this we will get no political settlement. And to withdraw 50,000 troops as just a sort of a guise of

making progress, but to make no change in our attitude toward what we are going to leave there, will not result in a settlement. I do not believe that it is in the national interest of the United States to maintain a base in South Vietnam, whether it be directly under our occupation, or whether it be by proxy.

Senator SPARKMAN. Let me say that I certainly have no quarrel with you on the views you state here—

Senator FULBRIGHT. But it is not clear me, Senator Sparkman, at all, from the actions of this administration, that they agree with you or with me on this point. On the contrary, the actions would indicate to me that we are planning to continue to control South Vietnam by proxy. That is what I read into the daily statements and actions of what we actually do. If this is true, you will get no agreement, and there is no way to get out in a dignified, honorable manner. I think there are some leaders who still harbor the hope that there will be a military victory, and they will just surrender, and that is why they keep up the kind of pressure, as they call it, as illustrated in the recent encounter in the Ashaw Valley. But I see nothing to indicate, really, in their actions, the acceptance of the view that we do not intend to continue to control South Vietnam, at least by proxy. I think this is the crucial point. I believe that it could be made clear to the opposition, the enemies, and especially to Russia, that we are willing to cooperate in a neutral South Vietnam. I notice that Mr. Thieu always said that he wants no part of neutrality, he doesn't want South Vietnam to be neutral, and of course he doesn't want us to withdraw anything.

Obviously Mr. Thieu doesn't want any change in the status quo, he wants us to stay right there with our troops and pay all the bills.

Senator SPARKMAN. My time is up. Let me say that I think it would be a very fine thing if we have a properly, and I mean properly supervised, neutrality arrangement for Southeast Asia, and a properly supervised election. Any way these people want to run their show, if there is a reasonably open opportunity to determine their own fate, that is what I think is our objective.

Chairman PROXMIRE. Before I yield to Congressman Conable I can't resist observing the enormous difference between the Louis Johnson budget of \$16, \$14, \$13, billion, and the budget today.

Even leaving Vietnam aside, we are close to a non-Vietnam budget of \$60 billion. We have 3½ million people in the Armed Forces compared to a fraction of that back in 1948, 1949. So that I think it is perfectly proper to take a consistent position that perhaps Mr. Johnson was very wrong, and as a matter of fact, even argued that at that time the Armed Forces should have been increased, but that now, with a far greater Military Establishment, that we can make a substantial cut and still have all of the defense and security that we need.

Mr. Conable?

Representative CONABLE. Thank you, Mr. Chairman.

Senator Fulbright, I don't know you personally, sir, and I am sure that we will disagree on a great many things. But I would like to

start by paying a personal tribute to you. Your voice has been a consistent one. Your dialog has contributed a great deal, I think, to the functioning of democratic government. And I am not one of those who believes that dialog is a sign of weakness. I think it is a sign of strength. And I want to compliment you, sir, on having so consistently expressed your point of view. There can be no question of partisanship in your remarks. And I wish I could say that of all your colleagues, some of whom have suddenly discovered, with a change of administration, that they are involved in the security of the country, that the military-industrial complex has suddenly become a frightening bogeyman, and that they therefore must speak out after some years of holding their tongues. I want to complement you, sir.

Senator FULBRIGHT. Thank you, sir. I appreciate that.

Representative CONABLE. I say that you have made a great contribution to dialog and to respect for the democratic process.

I have only one or two brief questions. Referring to some of the possible plans for, let's say, troop transports that could go to any part of the world on short notice, you say, if we have the capacity to do these things we will be tempted to do them. I think that statement requires a little clarification, because I am sure you are not advocating basing our foreign policy on an inability to meet what may be deemed to be our national interest at any given time in the future, isn't that right?

Senator FULBRIGHT. You are quite right. Of course, this raises the question of what is our national interest. And I wish to say that I do not think it is our responsibility or in our national interest to actively assume the burden of keeping the peace all over the world. This was one of the major controversies I had with Secretary Rusk. When he came before the committee we would get into this argument. We should defend our country. You will remember the expression the doctor wrote in his letter, to defend our own country and our own shores, and so on. Now, anything clearly related to that I think is within the national interest. It is a matter of political judgment, as I said a moment ago. And I said these decisions which have been made are primarily military political decisions by the President and his advisers. I can accept the idea that the defense of Europe—we are sort of the children of Western Europe, and there are many historical reasons—is essentially for our defense, and therefore I would be prepared to use our forces in defense of that.

I want to say about the planes that if the C-5-A was standing alone I wouldn't think too much of it. What I am trying to do is read the minds of the administration as to what they are really up to, what do they really have in mind about our responsibility? It is only one aspect of it, the logistics ships is another, to be stationed all over the world. If they were to be stationed only in Europe where I think we have a special interest, I could see that. But I think it is a very special interest, in contrast to South Vietnam, or in contrast to many other places.

Representative CONABLE. But, Senator, we rarely are asked to intervene all over the world at one time. Specific problems come up at

some point in the future. And at that time we have to determine what our national interest is with respect to that particular problem.

Senator FULBRIGHT. Correct.

Representative CONABLE. And I wanted to be sure that you were not advocating basing our defense posture or our foreign policy on an incapacity to move with respect to our national interest at some time in the future.

Senator FULBRIGHT. I may pay greater attention, or give greater significance to the existence of hydrogen bombs and missiles, and the capacity for delivery of nuclear weapons than anything else. We have recently been examining in the Disarmament Committee the existence of these large numbers of missiles. I am not advocating that we shelve our Polaris submarines, for example, because they have a different mission, and this I think can be considered defensive.

"The only threat, if there is one, to Western Europe is from Russia. I don't think we ought to intervene in Western Europe in an internal quarrel. I don't think it is our duty to intervene in civil wars. This is one of the major problems and difficulties with justifying the war in Vietnam, it was really a civil war that we intervened into.

Representative CONABLE. I wonder, sir, with respect to your statement that we should not be busybodies, if you would care to relate that to our foreign aid program. I recall that some effort was made during the last administration to justify our intrusion in Vietnam on the basis of the large investment that we had made in Vietnam previously in aid. And I am sure you are not advocating termination of the basic policy of technical assistance, development loans, and so forth?

Senator FULBRIGHT. Mr. Congressman, you touch on a very sensitive subject. That statement, the one that first came to my attention, in justifying intervention in Vietnam because of our investment through aid, was made, I believe, before the Foreign Relations Committee by the former Secretary of State, Mr. Rusk. And I took great exception to that view. And as a matter of fact, I am opposed to the continuation of a bilateral foreign aid program, the development program. I would go along with small technical assistance. I voted last year against the major bilateral foreign aid for this very reason, the reason you have just given. I am supporting multilateral aid. We have just passed through the Foreign Relations Committee and the Senate the IDA authorization for \$480 million. And I shall continue to support multilateral aid for that very reason. I don't wish to use aid or have it used as an excuse for our intervening in the internal affairs of foreign countries. And therefore this is one of the major issues.

I used to support aid all out. I thought it was our duty as the richest country. But of course other things have changed, I may say. We didn't have the interest rates at 7 or 8 percent. We didn't have all the internal disruptions that we have, the very things that Senator Percy and I were discussing. All of these have served to strengthen the idea that no longer is the kind of aid we have had appropriate to our present condition. That is one reason. But in addition to that, the far more important one is the tendency to induce intervention in the internal affairs of other countries.

I do think that a country, if we can reestablish a reasonably balanced economy, has a duty to help the development of other countries, just as I have felt internally that the National Government has a duty to help certain districts in the United States. It is more or less the same idea. It is to our interest to do that, it isn't just humanitarianism, although that is involved, but it is to our interest to do it. And I would do it through international organizations, the international bank, the U.N., and other ways, so that we could not become politically involved.

Representative CONABLE. One last question, sir. I believe collective security is more likely to be based on community of interest than on any legalistic formula or framework or commitment. Do you see any possible inconsistency between the steps you are advocating with respect to our foreign policy and the maintenance of the kind of common interest on which a true collective security can be achieved? For instance, how would you advocate reviving the idea of collective security which has so seriously deteriorated in the U.N. and with respect to regional defense pacts of one sort or another of a multination type?

Senator FULBRIGHT. I think you raise a very fundamental question. It is not easy to answer in a few words. I think it is an extremely important one. I said a moment ago the invention and development of weapons such as the hydrogen bomb, and now the further development of these enormously effective methods of delivery, have created a situation, and a new common interest of survival even between the superpowers which didn't formerly exist. It wasn't too long ago that it was possible to wage a war and come out of it without too much damage. We came out of World War I, while we lost men, and any losses are bad, but as a matter of fact, we were, relatively speaking, very little injured as a nation; more so in World War II. But now with the weapons we have, I don't see how anybody could come out of it. I think the question is the changing of attitude on our part and the Russians and others. No longer can the old fashioned warfare be tolerated. And this isn't a new thought. General Eisenhower and others made it very clear that a new attitude toward international relations must be developed, or we are going to have one of these days a nuclear exchange which is going to destroy what we think of as our civilization and we will revert to the stone age, or something comparable to it. I think the U.N. is the vehicle through which this can be developed. It should be. What I criticize my own country for doing is not emphasizing this more and using it more. Even though it has not been very effective, it has possibilities. And we never know by the timing of circumstances when that opportunity comes. The coincidence of the good idea and the circumstance is always a mystery to man, we never know. Maybe now is the time. There are many people who believe today is the most crucial time, before the development, for example, of the multiple reentry warheads. The MIRV program was a possibility before, and now it is under discussion. At another time maybe it wasn't so urgent for the Russians or us to consider this new approach.

A year ago may have been premature. A year from now may be too late. This is the idea. Nobody knows for certain. But many people—and I share their views—suspect that the present time is the most appropriate time that we are likely to have to enter into serious discussion because there is a multitude of interest.

You said the common interest. I agree with what you said. You can't set up institutions or do things which are not induced by a common interest on the part of participants. But the reason why some of us believe that now is a good time is the extravagance of these weapons. If our GNP is twice Russia's, and we are faced with 7 percent, 8 percent, prime rates, and housing is being stopped, and all this sort of thing, then what is happening in Russia? Of course, they live at a lower standard, we believe. And they simply tighten their belts. But this is a terrible price for both of us to pay. And it is impinging on the citizens of both countries.

Therefore it is in their natural, normal common interest to do something about it. And this is why I think that there is a possibility. And it is also a possibility that the U.N. might be used more, after these very disillusioning experiences of recent years, and the enormous expense of both countries.

When you consider what we have spent—I asked the Library of Congress to check as best they could and the Library gave me a figure about 2 weeks ago that their best estimate since World War II was that this country has expended \$1,250 billion on military affairs. Now, that is so big that none of us can comprehend it. It is a figure that seems to be an extraction. If you could translate it into what might be done of a constructive nature with even half of it, you could remake this country, you could almost remake the world. Now, the Russians have spent, relative to their own production, somewhat comparable sums. The best estimate that I have seen recently is that we are spending \$80 billion in round numbers, and they are spending about \$60, which is a slightly greater percentage of their GNP than ours. But of course their GNP is made up of a different kind of commodities from ours too, there are many differences that might be argued about. But in any case it is a comparable effort. It is a shame that they have to do it. And it seems to me this is a right important common interest.

Representative CONABLE. Thank you, Mr. Chairman.

Chairman PROXMIRE. Congressman Moorhead?

Representative MOORHEAD. Thank you, Mr. Chairman.

Senator Fulbright, I think that you have performed a very valuable service here this morning, sir, first in stressing so eloquently the urgent need for us to get started on talks with the Russians, and secondly, in also eloquently stating how we should reorder our national priorities.

For some years I have thought that Congress should reassert its constitutional power over the war in Vietnam. And in the middle of March of last year I introduced a resolution opposing further escalation of the war in Vietnam. This year in March I introduced a House concurrent resolution which now has some 38 cosponsors in the House which provides very simply as follows:

Resolved that it is the sense of Congress that the United States should begin to reduce its military involvement in Vietnam.

I wonder if you, sir, as chairman of the Foreign Relations Committee would care to comment on that resolution?

Senator FULBRIGHT. Certainly the sense of that resolution is in order. We should have done it long before now. I think we ought to try to move more vigorously toward a political settlement of the war. And as I have indicated, we have to make up our own mind as to what we want to come out of these negotiations. If, as I say, it is to continue control by proxy, I don't think you will get a political settlement. It will just go on and on.

I don't personally believe that we need a military involvement there. And as I have often pointed out, and others have, this was the accepted policy of our Government backed by our greatest military leaders up until just a few years ago until we became involved under the previous administration.

Representative MOORHEAD. If the Government in South Vietnam believes that we will continue our military involvement, I don't believe they have a proper incentive to ever make any settlement. But if they begin to think we are going to eventually get out, I think they will then decide that they have to make a settlement.

Would you agree with that, sir.

Senator FULBRIGHT. Yes. But I think we should put off that day as long as we can. I don't think you can get much help from the present Government of South Vietnam to liquidate that Government. That is just contrary to human nature. I don't think we should expect it. And I don't believe we will get it.

Some one asked previously about the withdrawal of the troops. And your resolution, of course, could be said to approve of the withdrawal of troops. I approve the withdrawal of troops, provided it is a part of the settlement. I think the danger about withdrawal alone is simply that it would be used as a sort of an excuse for doing nothing else, I mean for continuing with the other 475,000 men, and just going on for another year, and pulling back 25,000 and going on for another year.

It all comes down to, what is the real objective of our Government? If it is to get out, if it is to liquidate it as the French did in Geneva, I think it can be done. I don't think the actions of our Government have yet confirmed that that is our view, the actions as opposed to the word.

Representative MOORHEAD. Would you then say that if we were to assert our congressional authority, that you would rather have the resolution read that the United States should begin to liquidate its involvement in Vietnam?

Senator FULBRIGHT. I wouldn't exactly go that far. I think your resolution is quite a correct one. But I would hope to go further than that. I would have thought, in view of the last election that the new administration, not being responsible for the war, and free of former commitments, therefore would move. And I have been reluctant to come to the view that the President does not intend to do it. And I haven't positively taken that view. I have said that many of the things

we are doing are inconsistent with the view that we are going to give up the responsibility for running South Vietnam.

And all this isn't attributable to the new President. Part of these programs, the ones I have mentioned, are carryovers, that is, the continuation of the idea of these logistic supply ships stationed around the world. They didn't originate with this administration.

One of the observations, if not criticisms, that I make is that there has been so little change, observable change in the basic policy of this administration from the previous one. And normally after you have an election and the opposite party is elected you expect a change in the basic policies, and especially in that area which affects us the most grievously now, that is our foreign relations.

And there has been too little change up to now. It is almost 6 months. And I still have hopes that maybe there will be a change.

Representative MOORHEAD. I feel exactly the way you do, Senator. I am disappointed, but I still have hope.

Senator FULBRIGHT. But the hopes can't continue very long. I think another month or so is about as long as we can expect to hope for any change. And then I think it is our duty as representatives to help bring about the change, if we can. And we can just do what is within our power, and that is all.

Representative MOORHEAD. Senator, at the beginning of your statement you say, the military budget should be subjected to the same detailed scrutiny by the Congress that other Federal budgets receive.

Do you have any explanation for why the military budget does not receive the same scrutiny by Congress?

Senator FULBRIGHT. I don't know all of the reasons. I have some ideas. One is that it is so big that none of us really feel competent to go into the overall matter. Now, my committee has examined Mr. Foster on one aspect of it, for example, on the research programs, especially in the social sciences, and the research programs that they give to foreign universities. It grew out of—if you remember, the project in South America, which caused quite a bit of criticism about our relations with Chile. You remember about 3 or 4 years ago they uncovered a program in Chile that was sponsored by the Pentagon.

Senator SPARKMAN. Yes.

Senator FULBRIGHT. What was the name of it? Was it Camelot?

Senator SPARKMAN. Yes, Camelot.

Senator FULBRIGHT. It is an odd name for it.

Senator SPARKMAN. Maybe they were seeking the ideal place.

Senator FULBRIGHT. I think that was it.

Previous to that I didn't know the Pentagon was involved in this type of thing. We went into it, and it turns out that they sponsored, under the direction of Mr. Foster, an enormous number of research projects in foreign countries which in my view continued to arouse the suspicion of foreigners as to our purposes, as it did in Chile. And it has been a great hinderance to good relations with foreign countries. There has been great criticism of our military injecting itself into foreign universities.

You know the protest that we have in our own universities concerning the activities of military. What do you think it would be in the universities of Sweden and Japan and other countries?

All smaller countries always tend to be suspicious of the motives of big super powers with unlimited capacity for destruction. And this is a bad operation in my view. I put in to the record earlier this year a list of the present projects. And it is amazing how many projects they have going presently. We tried to criticize this, and we raised the question and condemned it, but we weren't able to stop it.

That is an example of our examining in a very small segment of the Pentagon's budget.

I remember in the finance committee one day I asked Mr. Schultze, then Budget Director, "Do you examine the research projects of the Pentagon with the same thoroughness with which you look into a little project, sewer or water project in Arkansas of \$50,000?"

Well, of course, he didn't.

I said, "do you go into these projects?" No, he did not.

The Budget Bureau accepts just by agreement, or by deference to the Pentagon, their own proposal.

The relationship, I may say, between the Bureau of the Budget and the Pentagon is quite different from the relationship of the Bureau of the Budget and HEW and Agriculture. It is not just Congress. And this has grown up as a matter of practice over the years.

And of course it is no secret that the committees in the Congress having to do with the military are among the most powerful, consisting of the most senior and influential members of both houses. That has been true since I have been in Congress. That is a very normal thing, I guess. That involves a philosophical argument. I don't think we had better take the time of this committee to go into that explanation. But there is that coincidence, there is no secret about it.

And therefor whenever they bring out a program it has usually been passed without much debate. One reason is that there was always the feeling of complete futility. You couldn't possibly change one iota, one comma in one of these bills. Senators and Congressmen have other things to do, and they don't wish to tilt at windmills. That has been true, I think, up until now. The first time in the 25 years I have been in the Senate that there has appeared to be an opportunity to change in any substantial way at all a program affecting the military has been the ABM. And I don't know whether it can succeed or not. We are told in the press that it is close. That is the only time I have ever heard of a vote being close on a matter affecting a major military program.

Representative MOORHEAD. Thank you Senator. My time has expired.

May I just make one comment, sir. I think that the great hope is that through hearings like these and statements like yours that we can get the people concerned. If the people become concerned, I think the Congress and the President and then the Bureau of the Budget will act and we will have some control over this military budget.

Thank you.

Senator FULBRIGHT. That is the hope of democracy. That is why we have the democratic system. We hope it will continue to function. I share your hope.

Representative MOORHEAD. Thank you.

Senator SPARKMAN. Mr. Chairman, I may say that when I said I was not listening a while ago when you brought out the question of Camelot, I was reading the very able testimony given by Mr. Schultze before this committee just yesterday.

Senator FULBRIGHT. He is very good.

You said earlier, Senator Sparkman—I didn't want to pursue it, but it is a coincidence—I don't know of any other example, but since I have been in the Senate, he has been the next ranking man. He was on Banking and Currency when I was Chairman of that committee, and now he is on Foreign Relations. So he gets plenty of exposure to me. And I don't blame him at all for reading Mr. Schultze's testimony.

Chairman PROXMIRE. Senator Symington?

Senator SYMINGTON. Thank you, Mr. Chairman.

Those remarks about previous budgets are very interesting. As I remember after World War II we reduced the budget to some \$10 billion. Then it went up because of the cold war. There was a figure of \$13,800 million in the spring of 1950; and we thought that too low. I did my best to sell General Eisenhower, then, as I remember, at Columbia University, on the idea of raising it \$500 million to make it \$14,300 million; but was unsuccessful. Stalin did not die until 3 years later. Regardless of what anybody thinks about the temperature of the cold war today, no one would deny it was considerably warmer then.

Today we have a military budget of \$80 billion, with a cold war not nearly as in those days. And testimony before the Senate Armed Services Committee is that even if we get out of Vietnam, testimony from the Defense Department, we will be able to cut the military budget very little. If that is true, because of the position of the dollar, it almost guarantees that there will be serious trouble incident to the value of the currency. As the Chairman of this committee knows, 20 years ago this country had \$24.6 billion in gold, and owed abroad, primarily to the foreign central banks, \$7 billion. Today gold has dropped from \$24.6 to \$10.8 billion, and we owe abroad primarily to the foreign central banks, \$35 billion. So from a corporate approach—and I have looked at many balance sheets in my time—this Government is insolvent.

As the Chairman also knows, any citizen of nearly any foreign country can take a green paper dollar and go to his central bank and demand and get its equivalent in gold, whereas we not only cannot do that, but if we have any gold, we violate a criminal statute.

And so I am very worried about the situation.

People have mentioned this morning that some have changed their minds. I think one of the most important duties of a public servant is to be able to change his mind in accordance with new conditions, be-

cause whatever the world is today, it is not the world we knew not long ago.

Who would have ever thought 20 years ago that the two richest countries in the free world except the United States would be Germany and Japan, and also that they would be two of our three best important friends? And who would have ever thought that today our two greatest enemies would be our two great former allies.

So under these circumstances I think it well we constantly "review the bidding," and keep a fluid concept of the world, which is certainly changing rapidly.

I want to pay again my respects this morning to the Chairman of this committee, and also to the distinguished witness.

One of our two greatest Missourians, Mark Twain said: "courage is resistance to fear, mastery of fear, not absence of fear." Of all the people in this country today who have had courage and wisdom in looking at this world situation, Senator Fulbright is probably at the top. I don't agree with him by any means on everything. But I do think he has forced the American people to think. And I do believe that he has demonstrated effectively the extreme difficulty, in this nuclear space age of winning with military might alone as against also with sound and constructive thought.

I am proud to be on his committee. It has done much to mold my thinking. If we work together now we may be able to reduce this budget under the leadership of people like you and him, Mr. Chairman, so it will not be such an albatross around the necks of the taxpayers of this country. Somebody said to me, we thought you were one of us. I am "one of us." This is the first overall weapons system I have opposed. But I have worked and voted—my figure is a little different—for \$953 billion since coming into Government. That means at the end of this year a military budget of over a trillion dollars. Every taxpaying American citizen today pays a per capita defense tax of over a thousand dollars. And the Federal defense budget this year is over \$17 more than the total individual income tax take of the United States.

It is my conviction that unless something is done, regardless of Vietnam it is going a lot higher, a projection Director Schultze was extremely interesting in bringing out yesterday in his testimony before this committee.

So I wanted to get these brief thoughts off my mind. I have no questions to ask of the distinguished witness. I just wanted to come here this morning and express my appreciation for his courage and wisdom in forcing the American people to think about these problems.

Chairman PROXMIRE. Thank you, Senator Symington.

Senator FULBRIGHT. Mr. Chairman, may I just comment.

First, of course I appreciate very much the comments of the Senior Senator from Missouri. The Senator has made one of the biggest contributions of any one on the Foreign Relations Committee or in the Senate in his effort to examine our priorities. He has been one of the first to recognize the dangers to our economy from this excessive commitment abroad in both military and economic matters.

He has been acting as Chairman of the Subcommittee on Military Commitments Abroad. And this study is going forward.

I know he has already made a contribution, but I know that it will be even more important as that study progresses. He is just in the middle of the study at the moment.

And he again reminds me of this idea about security. I have heard some of the prominent people—I mentioned a moment ago the Secretary of Defense—I also recall at a recent banquet the Speaker of the House of Representatives, one of the ranking personalities and officials of our Government, said the same thing, and others say, if I am to err, it is going to be on the side of security, meaning that you give unlimited—and it is always used in that context—unlimited support for any kind of military armaments. I think it is a gross misconception of the very idea of security. I think what the Senator from Missouri is saying—and he is certainly familiar with these matters—is what is security? Is security just going pell-mell to any kind of a weapons system? It is not, as he has so well said. Our security in this case in my view is to bring back into balance our economy and our political system. The security is threatened by this continued imbalance, by the continued dominance of the military idea, and especially this dangerous idea that we are going to police the world, that we are going to organize the peace, in the words of the previous administration, that we alone are going to undertake this burden.

And then to accuse the Senator from Missouri and me of being isolationists is nonsense. We are not isolationists. None of us is saying that we should withdraw in the shell and have nothing to do with the world. It is a matter of balance. I think the Senator from Missouri has put it very well, and I think he couldn't be more correct; the security of this country lies in now giving proper attention to the most serious dangers, which are internal primarily, as evidenced by the riots and the trouble in our schools and in our cities.

And the breakdown of our economy is threatened by these enormous rates of interest. Every day we hear what is going to happen with the prime interest rate going to $7\frac{1}{2}$ and 8 percent?

The reason I read that letter from the doctor, the physician—who obviously is a very intelligent man—is that what he is suggesting is that the disillusionment of the war is the thing that threatens the community, the spirit that binds the Nation together. And it does. We can't just go on making mistakes in all these areas, because there will arise a sense of frustration that will lead, very likely, if anywhere, to abandonment of our democratic system.

If you look over the world, it is not going to be to the left, it will be if anything to the right, the same way the countries in Latin America and in Asia and Africa have been going.

Now, people like to think we are immune to all the afflictions of mankind. And we have certainly been fortunate. But the Senator from Missouri couldn't be more right. I think he is the one who is really interested in security in the way that is effective. Those who would subject our entire interests to further and greater and greater ex-

penditures for the military are endangering our security, in my view. Security is not equivalent simply to armaments. And that is what the implications of those statements are.

And they have been made, as I said, on numerous occasions.

Let me also say to the Senator from Missouri, that when I said the Library of Congress said the military expenditures were \$1,250 billion, that includes, by my request, related expenditures, including one half of the interest on the national debt, which of course is a minimum attributable to military affairs, and it includes the cost of Vietnams, and so on. I don't think there is a real difference, because I think the figure you cited was direct military costs.

Senator SYMINGTON. I am sure those figures are right. One of the two most brilliant military men I knew in the pleasant years I had in the Pentagon once explained a lot of this to me by pointing out the difference between effectiveness and efficiency. No military man is trained in efficiency as against effectiveness. He always wants more, to be sure; whereas a businessman, operating under capitalism, wants to be sure he gets the maximum for the minimum.

That general is now the head of a great corporation in this country, one that has nothing to do with the military, to the best of my knowledge. If he was correct, he put his finger on a lot of these problems. Many of the military concentrate on effectiveness. With people like you and Senator Fulbright, and others, we can stress to them to put efficiency into that effectiveness, else this is going to be a run-away race which will ultimately end up in uncontrolled inflation.

Thank you for what you said, Senator Fulbright. Thank you, Mr. Chairman.

Chairman PROXMIRE. Thank you very much.

Mrs. Griffiths?

Representative GRIFFITHS. I might say, Senator Symington, the last time I checked the academies, only one academy had any courses in business administration or accounting, and that was the Air Force. Any yet you put these officers in charge of the greatest purchasing operation on earth.

I would like to ask you, Senator Fulbright, in view of the fact that in the past 2 years the majority of Congress has voted to put a stringent control on the spending in every area except the military and except the trust funds—in spite of the fact we have had rioting in the cities and trouble all over the country—what do you envisage would be really necessary to cut the military and put the money into domestic programs? What more do we have to have?

Senator FULBRIGHT. Well, first, trying to be practical from a political point of view, I don't believe we can do much with the military as long as the war continues—the war and the appeal of supporting the troops who are in the field and suffering serious casualties running into the hundreds each week. I don't think, as a psychological or political matter, you are going to make any headway in doing that. Therefore my first priority is the war. And I have tried to get the previous administration and this administration in every way I know how to do this.

My arguments have not been effective up to now. And the first opportunity to take a step in the direction of curtailing the military is going to be the vote, if we can get to it, on the ABM. This will create the impression, that if we can do this the military budget is not invulnerable. I and other Representatives in the House and the Senate will believe that it is worthwhile making the effort, that we can now achieve it. I know on several occasions the chairman of this committee has made efforts to cut a budget, maybe by 5 percent or something like that, but we always got beat, and we knew we were going to be beat. And it was serious in that we would like to do it, but no one believed that it was possible.

The first time I believe it is possible is the ABM. It is disassociated directly with the men fighting in Vietnam. Politically it has not been acceptable to those who have to run for election to be accused—and they will be accused—of being unpatriotic, not supporting the troops in the field. It is too dangerous a political issue.

The demagogues can take advantage of that. And as long as that war is a hot war and people are being killed they didn't want to take the risk of voting against a military appropriation, even though in their minds it wasn't directly associated with Vietnam. When you get back home it is very hard to draw those distinctions between something that was for the support of a far off base in Iceland or Tierra del Fuego from Vietnam. And so it was not practical. And several of us in the Senate talked at length as to whether we could do it. And we always decided that in the first place you couldn't accomplish it, and in the second place if you even tried it was politically too dangerous.

Now, I don't think it is. Therefore, as first priority, the war should be stopped. But pending that we ought to cut the ABM. If we do, I think there will be a great many other things. And this program for research in areas which have nothing to do with the military could be stopped. And I would certainly like to have a go at that one and a number of others that are not directly related to the war, upon which we might be effective even before Vietnam is over.

But obviously Vietnam is the dominant thing in the military picture, not only monetarily, but psychologically.

Representative GRIFFITHS. How do you turn on the money that we need to turn on? How do you spend the money where it is needed? How can you get this Congress to do that? I think the first thing they will do when Vietnam is over is to give a tax reduction.

Senator FULBRIGHT. Well, you are really suggesting that the Congress has no judgment. I don't go along with that entirely. I think the pressure of the war and the budget has been so great that this has altered our judgment. And there are many other things that have happened. The seriousness of the internal problems is coming home to all of us much clearer than it was before. First, if it didn't affect our immediate community we didn't take it too seriously. I come from an area which fortunately hasn't had the kind of problems that some of the big cities have had. I am not claiming any special superiority, since our circumstances are different. But I am much more concerned

than I was because of the persistence of it. I wasn't sure when you had the first riot in Detroit, or Newark, whether this was a symptom of a deep seated illness or not. I think it is now. And I wouldn't agree with you that the Congress wouldn't go along with programs designed to improve conditions in our cities, and in our schools, and so on.

In my own State, there are all kinds of demands for programs, for sewers and water systems, and things of that relatively simple nature that these people need. I certainly would support them, and expect people to support them. I would support programs in the cities even though we don't have major urban problems in my own State, such as housing. And I wouldn't agree that Congress couldn't be persuaded to support that program.

Representative GRIFFITHS. I sat here in the 1950's when unemployment nationwide was more than 7 percent, and when Senators and Congressmen begged for money to cure the ills that they saw than arising, and you couldn't get a cent. I sat on the floor of the House when they laughed to scorn—

Senator FULBRIGHT. When did you say this happened?

Representative GRIFFITHS. In the 1950's. I sat on the floor of the House only 2 years ago when the House laughed to scorn a \$40 million appropriation to get rid of rats in cities.

Senator FULBRIGHT. I remember that. Now, the period of the 1950's was, as you remember, a time of consolidation. It was not considered at that time that there was any necessity for doing anything. I think you are quite right, that it was a period when we should have done more than we did. But I don't think you should look back on our failures of that time and then extrapolate to say we wouldn't do it now.

Surely everybody is more conscious today of the neglect that has resulted in our country of some needed activities of a public nature, much more so than they were in the 1950's. There was no idea then of the trouble that we now have with the students, no one was conscious of how the students were becoming alienated, how the schools were running down. We knew that we weren't putting enough money in schools, but nevertheless he thought it was adequate. To put it simply, I think everybody including Congress, recognizes that we have some desperate problems domestically and they have to be dealt with. And therefore I think you could get votes. I think at the moment the pressure on the budget is very great indeed, and demand for a reduction is simply fantastic.

I think this is the crux of it. I think you are too pessimistic. I would not agree with you that we could not persuade our colleagues in the Senate or the House to go along with programs for the improvement of our domestic services of all kinds, such as transportation. I know that every morning it takes me a little longer to get to work because of congestion. And everybody is conscious of it.

Representative GRIFFITHS. I hope you are right, Senator.

Chairman PROXMIRE. Thank you very much, Senator Fulbright, for a very fine statement. And for your responsive answers. You have

helped these hearings immeasurably, and you have given us an excellent insight and a fine perspective on the priorities. We are certainly in your debt.

Senator FULBRIGHT. Mr. Chairman, I again want to congratulate you on these hearings. I think this Joint Committee can play a very important role. It is appropriate for it to be the one to do it, and I think these hearings are extremely important. This committee is one of the reasons why I think we shouldn't be too pessimistic, if the committee continues in this way it will enlighten the people and the Congress to the point where they will do something about it.

Chairman PROXMIRE. Thank you, Senator Fulbright.

I want to welcome to the subcommittee the next three witnesses, Professor Boulding, Dr. Lecht, and Professor Clayton.

Professor Boulding, who is professor of economics at the University of Colorado and former president of the American Economics Association, has written widely on the major social issues of our time. He has been the leader in research on the issue of conflict resolution.

Dr. Lecht, director of the Center for Priority Analysis at the National Planning Association, has written widely on the subject of national goals and priorities and the dollar costs of attaining them. His book, entitled "Goals, Priorities, and Dollars," provided major contribution to our understanding of the volume of resources required to meet our most basic objectives.

Finally, Professor Clayton, who is a historian at the University of Utah, has done substantial research on the longrun budgetary implications of waging war.

We look forward with anticipation to the statements of these gentlemen.

And you can handle this any way you wish. If you would like to summarize your statement, I can tell you that it will be printed in full in the record.

Professor Boulding, you may proceed.

STATEMENT OF KENNETH E. BOULDING, PROFESSOR OF ECONOMICS, UNIVERSITY OF COLORADO

Mr. BOULDING. My name is Kenneth E. Boulding. I am a professor of economics and a program director at the Institute of Behavioral Science at the University of Colorado.

I have been concerned for a good many years with the problem of the "war industry" and its effects. I use the term "war industry" to describe that segment of the economy which is financed by the military budget and which produces whatever is purchased by the expenditure of the military budget. In the United States, this is now between 9 and 10 percent of the gross national product. The world war industry, according to the estimates of the U.S. Arms Control and Disarmament Agency, amounted last year to about \$182 billion, which is approximately the total income of the poorest half of the human race.

The economic burden of the war industry falls partly on the present generation and partly on future generations. In the present generation

it clearly represents a withdrawal from potential household purchases on consumption. Thus, in 1929, when the war industry was only about 1 percent of the American economy, household consumption was about 75 percent; today with the war industry nearly 10 percent, household consumption is down to 62 percent of the gross national product. This means in effect that the rise of the war industry in the last generation now deprives the average American household of something like 15 to 20 percent of his total potential purchases.

It may be thought that this is a relatively small burden, but averages are misleading, and at certain points the war industry bites much more severely into the American economy than it does on the average. This is because the war industry is part of what I have been calling the grants economy, rather than the market or exchange sector, the grants economy being that part of the economic system in which allocations of resources or income are determined by one-way transfers, rather than by exchange, which is a two-way transfer. Thus, the grants economy includes most of the Government tax and expenditures system outside of what might be called Government business, like the post office, and it includes the greater part of private charitable grants and foundation grants. The grants sector of the economy is an "economy" in the sense that the total of grants is not indefinitely expandable, but depends on the general willingness of the society to make one-way transfers. Even though the grants sector of the economy has been expanding substantially in the past 50 years, at any one time it is subject to quite sharp limitations.

The war industry is now more than half the grants sector of the economy, so it is clear that it bites much more severely into this sector than it does into the economy as a whole. Thus, the segments of the economy which are most affected by the war industry are those which are competitive with it in the structure of one-way transfers. Prof. Bruce Russett of Yale has suggested that of these education is the most vulnerable. The problem here is "what goes down when the war industry goes up a dollar?" Even though the answer to this question may vary from time to time, it seems clear from the evidence of the last 30 years that the main thing which goes down is expenditure on education, though all other civilian sectors of the grants economy may be expected to suffer.

The adverse affect of the war industry on the future generation comes about mainly in two ways; the first is the effect on education mentioned above. This is likely to be an increasingly serious problem simply because education as an industry and as a proportion of the gross national product needs to expand very rapidly in the coming years. There are two reasons for this. One is that as the total stock of knowledge increases, the resources that have to be put into transmitting it to the next generation likewise must increase. The second reason is that as the productivity of education rises slowly, if at all, the relative price of education continually rises in the form of rising wages and salaries for those engaged in it, who must get their share of the generally increasing per capita product of the society. Education, however, is mainly financed through the grants economy, especially

through the tax system, and it is even now running into severe resistance to expansion, as evidenced in the failure of school bonds and millage increases, and the failure of central city school systems to cope with the flood of rural migrants. Even though the decline in the birth rate is likely to make this problem somewhat easier in the future, the increasing burden of the transmission of knowledge is something which will accelerate rather than decline.

The other point at which the war industry may be costly to future generations is in its absorption of a very large proportion—some have estimated 60 percent—of research and development expenditures. There is a great deal of evidence to suggest that civilian industry is starved of able research scientists and engineers because of the “internal brain drain” into the war industry. By far the most important resource of any society from the point of its future is the innovative capacity of its ablest minds, and if these are absorbed into the war industry they will clearly not be available elsewhere. Furthermore, the spillovers from the war industry into the civilian sector seem to have been declining, and are quite inadequate to compensate for the drain of problem solving capacity. Because of the obsessive expansion of the war industry many vital sectors of the civilian economy are failing to solve their technical problems. We see this in transportation, in building, even in many of the areas of general manufacturing. Shipbuilding is a case where the domination of an industry by the war industry has itself resulted in technical backwardness because even within the war industry itself certain areas, such as the aerospace complex, have absorbed problem solving capacity at the expense of others.

The final cost of the war industry is the probability of destruction which it creates. If we are to assess the real costs of the war industry we would have to add to its budget an insurance premium expressing the probability of the destruction which may result from it. How high this would be nobody knows. My own guess is that the probability of nuclear war may well be of the order of 1 percent per annum. Below this would seem to be below the level of “just noticeable difference” at which decisions would be affected. This may not seem to be very much, but accumulated for a hundred years it becomes rather frightening. In assessing the insurance premium for war destruction we also have to make an estimate of how much destruction there would be. This again has to be a wild guess. If we suppose, however, that nuclear war would destroy half the population and capital in the United States and that recovery would be very slow simply because the survivors would all be sick and disorganized, the income equivalent of this capital loss could easily be of the same order of magnitude as half the gross national product itself, or \$450 billion per annum. If what we are buying with the military budget is a positive probability of irretrievable disaster, this seems expensive at any price.

On all these grounds, the case for sharp reductions in the military budget is very strong. The military budget, however, is a function of our own image of ourselves as a nation and our image of the international environment. The military budget is a function of two things—

the desire for power and the sense of threat. Of these, the first is considerably under our control, and the second may be controlled in part by a shift in policy. One of the things we must learn if we are to survive is that the national interest is what the Nation is interested in.

Within wide limits this is a subjective variable. If we have an image of ourselves as the great power, making everyone conform with our wishes, we will tend to have a large war industry. If we visualize ourselves in a more modest role in the international system, even perhaps as first among equals, we can get along with a war industry which is much smaller.

From a strictly economic point of view, being a great power is extremely unrewarding. The Swedes discovered this a hundred years ago, the British and the French have just discovered it in this generation, but we do not yet understand this. There is little doubt that the economic development of Britain and France, for instance, was seriously hampered by their imperial and great power positions in the hundred years after 1850. The development of the United States in this period was unquestionably assisted by the fact that it did not visualize itself as a great power and hence devoted a very small proportion of its resources to the war industry. In the next generation or so, if we persist in our image of ourselves as not only a great power, but the greatest power, we not only greatly increase the risk of mutual destruction, but we will seriously hamper our own internal development and the quality of our internal life.

External threats are not unreal, but they tend to loom much larger in the popular imagination than they really are. Furthermore, our own almost exclusive reliance on the threat system in our international relations increases rather than decreases the external threat. Our external relations are now fantastically unbalanced on the side of threat. We may ourselves visualize our armed forces merely as counterthreat, but the world outside does not see it in these terms. We need to move toward much more balanced foreign policy which would be quite consciously directed toward the establishment of stable peace, and which would place much greater stress on the development of integrative and trade relationships, rather than on the use of threat.

The American eagle is portrayed as holding an olive branch in one claw and a sheaf of arrows in the other. What kind of policy is it that weights down the one claw with \$90 billion worth of arrows and provides the other with a minute, wilted, olive branch on which we spend practically nothing? The restoration of a balanced posture is a critical need of the day. Without this we are in grave danger of failing to solve our internal problems, and we are increasing rather than diminishing the threat of nuclear disaster.

The war industry is a cancer within the body of American society. It has its own mode of growth, it represents a system which is virtually independent and indeed objectively inimical to the welfare of the American people, in spite of the fact that it still visualizes itself as their protector. We have not yet lost civilian control over the war industry, but if this control is not reasserted we are in grave danger

of going the way of Japan—a country conquered by its own war industry in the middle thirties, with eventually catastrophic consequences.

Thank you.

Chairman PROXMIRE. Thank you very much, Professor Boulding.

Dr. Lecht, you are recognized.

STATEMENT OF LEONARD A. LECHT, DIRECTOR OF THE CENTER FOR PRIORITY ANALYSIS OF THE NATIONAL PLANNING COMMISSION

Mr. LECHT. I am testifying in response to an invitation by the subcommittee chairman. I speak as an individual, and my views do not necessarily reflect those of the organization with which I am affiliated, the National Planning Association.

Mr. Chairman and members of the subcommittee, there has been widespread concern that a sizable reduction in spending for national defense would lead to substantial increases in unemployment. Research undertaken by the National Planning Association for the Manpower Administration offers a point of departure for assessing the employment impact of a decline in defense expenditures accompanied by an increase in spending for "civilian economy" goals.

This research is based on NPA's study of the dollar costs for achieving national goals in the mid-1970's in 16 areas covering virtually all aspects of the economy, private and public. The goal areas considered include, among others, education, research and development, social welfare, transportation, and urban development. Our projections show, for example, that providing the physical facilities to enable people to live, work, move about, and play in American cities on a scale commensurate with recent standards would require outlays, primarily private outlays, estimated to reach as high as \$152 billion in 1975 (in 1967 dollars). Maintaining a high level of research and development for defense and space objectives, while also expanding R. & D. in the many industries conducting little research, and in new fields such as molecular biology or water desalination, is projected to require expenditures amounting to \$43 billion a year by 1975. Supplying a modest but nonpoverty income to individuals with little or no income because of old age, dependency, disability, or unemployment is estimated to involve annual public and private expenditures in the neighborhood of \$100 billion by the mid-1970's. The overall conclusion that emerges from the goals study is that even the world's most affluent society cannot afford to achieve all of its goals at the same time. With reasonably optimistic GNP growth, a growth rate in output of about 4.5 percent a year, we estimate that the cost of achieving all 16 goals considered in the study would exceed the \$1.1 trillion GNP (in 1967 dollars) anticipated in 1975 by \$150 billion.

These projections refer to goals and standards as they were conceived in the early and mid-1960's, the time the original study was made. By 1969, it is likely that an accumulation of problems and

greater awareness of problems in some areas, such as air and water pollution, would increase the estimates of the costs of achieving goals if standards were redefined in the light of current knowledge and current developments. The cost estimates would also be higher if they took into account the inflationary price increases in the past 2 years.

Within the limits set by the available resources, if outlays for national defense, one of the 16 goal areas, were to diminish, greater expenditures for the Nation's social and economic goals could play an important role in sustaining high levels of employment, as well as in a rising standard of living and improving the quality of life. The dimensions of the changes in employment likely to follow from a shift in priorities of this kind can be illustrated in terms of an assumed \$20 billion decline in defense purchases from industry over a 2-year period accompanied by a \$10 billion reduction in personal and business income taxes, and a \$10 billion increase in Federal expenditures equally divided between spending for urban development and spending to enlarge social welfare benefit payments. The greater public expenditures would be in addition to the built-in increases, say in OASDI benefit payments, growing out of such factors as population growth.

Our study indicates that a shift of this magnitude would result in an estimated net increase of 325,000 jobs in industry. What the projections illustrate are the potential manpower impacts of an ending of the war in Vietnam, accompanied by a lessening of international tensions. In the absence of an improvement in the relations between the great powers, the decline in defense purchases and the manpower impacts would very probably be of a lesser magnitude.

Where do we get these estimates? Looking at the cutback side, a reduction in the defense purchases would be concentrated in the durable goods industries, in the industries producing aircraft and missiles, ordnance and weapons, and communications and electronics equipment. For the mix of industries included in the cutback we have considered, there would be an anticipated loss of slightly more than 70,000 jobs for a billion dollar reduction in output (in 1969 dollars). All told, the projections show that there would be a loss of about 1.4 million jobs because of the decrease in defense purchases from industry.

The increases in employment would largely take place in the industries producing consumer goods and services and in the construction industry. These industries typically employ more workers to produce an output of equivalent value than the heavily defense-impacted industries such as aerospace or electronics. According to our projections, the industries expanding production because of the shift in priorities would employ over 85,000 additional workers for a billion dollar increase in output. This amounts to a total of nearly 1.7 million jobs.

These projections, like others, are estimates, and the absolute numbers depend, in part, on such factors as the assumed ratio of output per man-year to jobs. In addition, our optimistic conclusion is incomplete, and, standing by itself, somewhat misleading. As one problem, the job skills of the persons released from the defense industries would often

be different from the skills required in the new job openings. The changes in economic activity resulting from a shift in priorities of this kind is estimated to result in a net loss of 55,000 jobs for professional workers, mainly engineers; and over 95,000 jobs for semiskilled operatives. By contrast, there would be an increase of almost 130,000 jobs for service workers, and over 70,000 for craftsmen, largely building trades workers. As an additional consideration, the growth in employment would be generally diffused throughout the economy. The job losses would tend to be concentrated in centers of defense production. States like California, to cite an instance, would probably lose more jobs because of the cutbacks than they would gain because of the offset programs.

The overall impact of the transfer of expenditures for employment and unemployment would also be affected by the growth in jobseekers brought about by reductions in manpower requirements for the Armed Forces and in Government civilian employment for defense. The Cabinet Coordinating Committee on Economic Planning for the End of Vietnam Hostilities has estimated, for example, that the private labor force could be expected to show a net growth of 600,000 persons for these reasons in the six quarters after the war in Vietnam ended. More adequate GI benefits and job training and relocation programs, along with the shifts in priorities considered, would help in minimizing the transition to employment for veterans and other affected individuals. In addition, measures to encourage widespread use of paraprofessional and subprofessional workers in fields such as health and education would both create many job openings and also help to relieve the bottlenecks of highly skilled professional manpower which can frustrate attainment of high-priority goals. Research by NPA indicates that implementing national priorities in health and education would create an anticipated average of nearly 300,000 job openings a year because of employment growth and attrition in the 1970's for these paraprofessional and subprofessional workers.

To conclude, the major condition for minimizing the human dislocation associated with the changeover to a less defense-oriented society is a dynamic economy. More active pursuit of goals which serve social purposes can also serve to reduce unemployment because, with a less than fully employed labor force, the expenditures for their pursuit contribute to economic growth.

Chairman PROXMIRE. Thank you very much, Dr. Lecht.

Our final witness is Professor Clayton; you may proceed, sir.

STATEMENT OF PROF. JAMES L. CLAYTON, UNIVERSITY OF UTAH

Mr. CLAYTON. Mr. Chairman, in the light of Senator Symington's remarks about efficiency and effectiveness, and with a desire to have as much time as possible for the committee to ask questions, rather than read my paper I would like to summarize its highlights.

Chairman PROXMIRE. The entire paper will be printed in full in the record.

Mr. CLAYTON. Thank you.

I am making here, I think, essentially three points.

The first point is that, except for World War II, the war in Vietnam is now the most expensive war in the history of this country. This conclusion is based primarily on official figures from the Department of Defense since 1965, and my own estimates of costs in Vietnam prior to that time.

This figure also includes veterans' benefits which will be paid out over the next century as they have been in the past, amounting, I think, to somewhere in the neighborhood of \$220 billion. This figure is based largely on the Bradley Commission's study in the mid-1950's of the veterans' benefits.

Chairman PROXMIRE. You are talking about veterans' benefits from the Vietnam war by itself?

Mr. CLAYTON. By itself.

Chairman PROXMIRE. \$220 billion?

Mr. CLAYTON. And that is a median, not a maximal, estimate.

In fact, the major point that my paper makes is that the greatest increase in costs of any war in our history comes after the fighting stops in the form of veterans' benefits. And when you add to this the interest costs, which I have tried to determine from past wars to get a pattern of what we can expect in the Vietnam war, this adds another \$22 billion to the original war cost of approximately \$110 billion. And I calculate that the Vietnam war will cost us, if it ends this fiscal year, that is, fiscal 1970, somewhere in the neighborhood of \$350 billion.

That is my first point.

The second point is really related to the first. I have touched on it already, and I will pass over it rather hurriedly. It is that most of the debate that we have heard on the Vietnam war has talked about costs at present, but most of the costs of wars in American history have come after the fighting stopped.

I would like to call the committee's attention to table 1 of my statement that measures the increase in cost of veterans' benefits. This is on page 9 right after the statement itself. You will note there that veterans' benefits have lasted for the first four American wars over 100 years. In the case of the War of 1812, they lasted for 131 years. Most of those benefits were non-service-connected benefits, and many of them were paid long after the veterans had died.

Note also in the last column that the veterans' benefits as a percentage of the original costs—and these original costs are limited to the expense for the war itself—increased the original cost of the war; in the case of the Civil War, 265 percent; in the case of the Spanish-American War, 15 times, and in the case of World War I, 290 percent.

Chairman PROXMIRE. The veterans' benefits of the Spanish-American War were 15 times as costly as the war itself?

Mr. CLAYTON. That is right.

This is something I think we need to consider today. For those who are debating the war either pro or con, it seems to me that we should look at long-term costs, not short-term costs, because the greatest cost—and this is my second point—comes after the fighting stops.

The third and final point I would make, Mr. Chairman, is related also to the other two. And that is that those who would cut our defense budget—and we have heard about the \$80 billion that we are spending currently—should also consider cutting our veterans' benefit payments, or at least transferring those payments from the Veterans' Bureau to the social security rolls; that is to say, if most of the costs come after the war ceases, it seems to me the place to cut most of these costs would be where they originate. And that is in the veterans' benefits. What this would do, I think, Mr. Chairman, would be to remove from the so-called military-industrial complex the support of all the veterans' organizations pushing for service pensions and things of this nature. Rather than seeing in a war tremendous subsidy for them, over 131 years in one instance, we could then transfer their allegiance and their loyalty to domestically financed, funded, and organized programs.

This is the essence of my statement, Mr. Chairman.
(The complete prepared statement follows:)

PREPARED STATEMENT OF PROF. JAMES L. CLAYTON

THE ULTIMATE COST OF THE VIETNAM CONFLICT

Except for World War II, the Vietnam Conflict is by far the most expensive war in American history. This is true whether measured by initial costs or by ultimate costs. In terms of initial dollar costs, the Vietnam War, according to Department of Defense figures, will have cost \$110 billion by the end of the next fiscal year. This \$110 billion figure is already twice as high as the initial cost of the Korean War and more than four times higher than the original cost of World War I (see Table 1).

But the most striking thing about the cost of the war in Vietnam is that *the greatest costs are yet to come*. If history is an accurate guide in these matters—and we have no other—the expenditures of veterans' benefits over the next century will cost at least fifty percent more than the initial cost of the war itself. Twenty percent of our adult population are war veterans, and almost half our population is potentially eligible to receive some kind of veterans' benefits. The cost of their support (including dependents and survivors) in recent years has been between the third and fifth most expensive item in the federal budget, and since 1950 the annual average value of veterans' benefits has been increasing at a rate of 20 percent per decade. Add to those veterans' benefits the annual interest payments on debt incurred owing to the Vietnam War, and the ultimate cost of that involvement will probably be about *three times* its initial cost. This kind of accounting is seldom if ever mentioned in the debates about the war.

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Measuring the monetary costs of any war is an extremely difficult but not impossible task. The Executive Office of the President has, however, made a valiant attempt to ascertain the costs of the Vietnam War since 1965. Its findings are printed in the 1970 *Budget of the United States Government* (p. 74). According to these official estimates, in fiscal 1970 the Vietnam war will eat up 13 percent of all federal expenditures, and will have cost a total of \$108.5 billion since 1965. But these figures do not tell the whole story. Actually, only about \$100 billion of the federal budget is relatively controllable. The remainder is already committed or in trust funds. Of this \$100 billion, no less than 80 percent is accounted for by national defense. Since the Vietnam War accounts for 32 percent of the 1970 defense budget; in terms of what the government actually can spend in that year, the Vietnam War is really costing us 25 percent of all possible expenditures, not 13 percent as the official figures indicate. This 25 percent figure, it

should be noted, is based on a projected deescalation in Vietnam costs estimated at \$5 billion under 1969 costs. It is further assumed that the big increases are over. But that is what we were told in 1968 and costs *increased* \$2 billion. If the war in fact continues at its present rate, almost a third of our federal disposable budget will be committed to Southeast Asia. If the war escalates, the ratio could easily go to one-half.

The official figures also underestimate the costs of the war in other ways. Only the number of American personnel actually stationed in South Vietnam is generally reported. This figure is now at approximately 532,500. Since 1967, however, there have been at least 77,000 Americans stationed in Thailand or serving off-shore as support forces for the Vietnam conflict. This would bring the total in the *immediate* war zone to 634,000. In addition, there are over 250,000 "backup" men in the U.S. and elsewhere who are probably not counted in cost estimates, bringing the total number of men committed to the war closer to 884,000. These additional personnel obviously add additional costs.

Moreover, for reasons that have not been made clear the official figures only measure costs since 1965. But Americans have been stationed in Vietnam since 1954, and combat troops have been killed since July, 1959. Between 1954 and 1964 there were a total of 58,885 men stationed in Vietnam, assuming a one year tour of duty. The cost of supporting these men is not included in the official estimates either. At \$25,000 per man year—a figure suggested in 1967 by Robert Anthony, formerly Assistant Secretary of Defense, as the actual cost of supporting one GI in Vietnam—this would increase the overall war costs by \$1.5 billion. If veterans' benefits and interest costs on the war debt were included, the cost of supporting one GI in Vietnam would be closer to \$75,000 per year.

Focusing on short-run costs is not nearly so informative, however, as looking at long-term war costs. The *pattern* of long-term costs clearly indicates that the largest money costs of war come long after the fighting stops. This fact is not widely appreciated today. The basic reason for this pattern is that veterans' benefits for our first five major wars—payments that are now virtually complete—have averaged more than three times the original cost of those wars. The projected increase in benefits for veterans for wars fought during the past century, although varying widely in their total impact, are equally large. To illustrate, the estimated original cost of the Civil War is \$3.2 billion (Union Forces only). This estimate is based on the expenditures of the Departments of the Army and the Navy for the years 1862 through 1866. Veterans' benefits for that war to 1967 have amounted to \$8.6 billion, or an increase over the original cost of 265 percent. Projected veterans' benefits for World War I, World War II, and the Korean War—assuming today's laws and no increased coverage—will increase the original cost of those wars by 290 percent, 100 percent, and 184 percent respectively.

This statement needs elaboration. If one measures the original cost of our three earliest wars—the American Revolution, the War of 1812, and the Mexican War—as the amount of money spent by the Departments of the Army and Navy during the war years, one finds that each of these wars cost between \$73 and \$100 million (see Table 1). Veterans' benefits then began to be paid out and climbed steadily, peaking in the case of the War of 1812 some 68 years later. These benefits continued to be paid for the War of 1812 until 1946, 131 years after that war ended! Veterans' benefits for the Mexican War did not drop below \$1 million per year until this decade, and did not stop until five years ago. This unusual phenomenon is best explained by an example. Suppose a drummer boy, age 14, became a soldier in 1861 and was disabled in that war. Suppose also that he married late in life, at say age 60 or in 1907. Suppose further that his wife was age 25 at marriage and that at age 30 she bore him a child that was mentally or physically incapable of supporting himself. That child would be 57 years old today and still drawing benefits—over a century after the war ended. In 1967 there were 1,353 such dependents of deceased veterans of the Civil War still drawing benefits amounting to more than \$1 million dollars annually, a fact which suggests that this example is not far-fetched.

A look at veterans' benefits projected for more recent wars is also instructive. To 1967 veterans' benefits for the Spanish-American War cost \$5.3 billion, or *thirteen times* the original cost of that war. Moreover, the peak of these post-

war costs did not come until 51 years after the war ended. World War I veterans' benefits probably peaked three years ago or 49 years after that war ended. World War II veterans' benefits will probably peak at the turn of this century, and dependents of veterans of the Vietnam Conflict may be drawing benefits until the 21st century!

It should be emphasized that these projections are not precise. Over time, such benefits rolls tend to be more inclusive and the payments tend to go higher. What should be emphasized, however, is that veterans' benefits in the United States are the most liberal in the world, that as veterans reach 65 years of age a majority of veterans are covered regardless of disability (52% of World War I veterans and 90% of Spanish American war veterans are now receiving some kind of compensation), and that, except for service connected disability, the veterans' claims to preferential treatment, although justifiable in the past, is tenuous at best today.

It should be further emphasized that these benefits have acted as an enormous transfer payment to this sector of the population. Partly owing to educational subsidies, veterans are generally better educated than nonveterans. Their median educational level in 1967 was 12.3 years as opposed to 12.0 for the population as a whole. For post-Korean veterans the level was 12.6. The median 1966 income of war veterans who had completed college was \$10,900. For non-veterans it was \$9,510. The employment data for veterans also reflects this higher status, in part because of their educational attainments and in part because of laws favoring veterans' job security. Only 2.2 percent of veterans were unemployed in the first quarter of 1968, versus 3.8 percent for the civilian labor force as a whole. The incidence of poverty among veterans and non-veterans is even more striking. In 1966, 13.8 percent of all families had incomes below \$3,000. Only 6.6 percent of veteran families had incomes that low. For post-Korean Conflict veterans that figure was 3.7 percent. Clearly, wars (and more especially their aftermath) can be profitable to those who have participated in them.

Next to veterans' benefits the interest costs on money borrowed to fight our major wars is the most significant long-range cost. Again, any attempt to measure actual interest costs is extremely difficult, if not impossible. Still, the patterns of interest costs are instructive. Overall, these costs have probably ranged from 15 to at least 40 percent of the original cost of the war itself. These costs are conservatively estimated as follows: Most of the national debt during the early years of our Republic were Revolutionary War debts. If only two-thirds of the interest on that debt between 1790 and 1800 is taken as a fair estimate, then the cost of the Revolutionary War is increased by about one-fifth. One-half the increase in interest payments on the national debt from 1816 to 1836, when the debt was paid out, would increase the 1812 war costs by about 15 percent. Interest costs for the Mexican War are within a similar range.

Prior to the Civil War, interest on the public debt was less than \$4 million. During that war it jumped from \$4 million in 1861 to \$144 million in 1867. Interest payments then fall gradually for the next 25 years and then leveled off at about \$30 million annually. Since very few federal programs adding to the deficit were undertaken during these laissez-faire oriented years, we may assume that most of these interest payments are attributable to the Civil War. In all, interest payments raised the price of the Civil War by about one-third. That "splendid little war," the Spanish-American War, required a loan of \$200 million. Americans rushed to buy war bonds, but they were soon in the hands of a few individuals and corporations and were still being paid off by the time the next war came along.

Interest costs for World War I have been much more carefully figured than for earlier wars. Some years ago, John M. Clark, in a book entitled *The Costs of the World War to the American People*, calculated the original cost of that war, and the U.S. Treasury figured the interest costs to 1929 at \$9.5 billion. Total interest costs eventually amounted to about \$11 billion, or approximately 42 percent of the original cost.

Henry C. Murphy, in his book *National Debt in War and Transition* has shown that the federal government borrowed about \$215 billion at 2½ percent interest per annum to finance World War II. That debt has not been paid off. Indeed, at no time since 1946 has the gross public debt fallen below \$252 billion, and it has been increasing rapidly in recent years owing to Great Society programs and the Viet-

nam War. World War II has already cost us about \$200 billion in interest payments, assuming an annual interest rate on the unpaid balance of 4 percent. This figure is now 70 percent of the original cost and suggests that war costs are going up rapidly—largely because we do not even attempt to retire the original debt.

The Korean War added about \$10 additional billions to our war debt. In 1951 our gross public debt was \$255 billion, in 1955 it was almost \$275 billion. If one-half of that increase is attributable to the Korean War, then in 25 years at 4 percent the interest costs on the Korean War will have amounted to \$10 billion also (assuming the same pattern of non-payment of principal as in World War II).

II

The point of this exercise in figures is to give us some idea of what we might reasonably expect the war in Vietnam to cost us based on the experience of the past. Using the pattern of veterans' benefits paid out for the Civil War, World War I, World War II, and the Korean War as a guide, we may expect the Vietnam Conflict to eventually cost us about 200 percent of the original cost, all other things being equal. This figure is conservative, however, because a much higher percentage of Vietnam veterans are using their educational benefits now than in previous wars, and life expectancy is increasing. Benefits also tend to be more inclusive with time and rise with the cost of living. The present cost of these benefits is about \$130 per year per family, and this figure does not include mortgage guarantees or substantial state aid to veterans. Regarding interest costs and using the Civil War and World War I as guidelines, we may fairly expect interest rates of the Vietnam war to cost at least 20 percent of the original cost and possibly as much as 40 percent. In short, the cost of the Vietnam Conflict, even assuming a major deescalation at the end of this year and a total withdrawal next year, will be about \$350 billion (see Table 4).

It should be emphasized that this is a conservative figure and measures only the direct major monetary costs. The estimate does not include inflationary costs owing to the war, the loss of services and earnings by the 33,000 men killed in the war to date, the cost of resentment abroad, the depletion of our natural resources, the postponement of critical domestic programs, the cost of the arrested training and education of our youth, the cost of the suspended cultural progress of our nation—and nothing of the death and destruction to the South Vietnamese civilians in the war zone itself.

The estimated ultimate cost of the Vietnam War is so high it boggles the mind unless placed in perspective. How much money is \$350 billion? Compared with other federal expenditures during the same period of time the war has been on (fiscal year 1960–1970), the war in Vietnam has cost 10 times more than Medicare and medical assistance, 14 times more than support for all levels of education, and 50 times more than was spent for housing and community development. We have spent several times more money on Vietnam in ten years than we have spent in our entire history for public higher education or for police protection. Put another way, the war has cost us more than one-fourth of the value of current personal financial assets of all living Americans, a third again as much as all outstanding home mortgages, and seven times the total U.S. money now in circulation.

III

Looking back over the cost of wars in American history, there seems to be an evil nemesis dogging our destiny. Each of our major wars (the Civil War, World War I, and World War II) during the past century have initially cost about ten times more than the previous wars, if indirect as well as direct costs are included. The Civil War initially cost more than \$3 billion, World War I \$33 billion, and World War II about 381 billion. Since World War II, our major conflicts have tended to *double* in price. Korea cost \$54 billion and Vietnam to date has cost \$110 billion. Total federal expenditures, moreover, have tended to increase four to five times after each major war. In the case of Vietnam, government expenditures to date (1960–1969) have doubled. Unless we drastically reverse this trend and significantly reduce our current military expenditures, war will soon be simply too expensive to contemplate and governments too cumbersome to endure.

TABLE 1.—HOW VETERANS' BENEFITS INCREASE WAR COSTS

[In millions of dollars]

War	Original cost ¹ (major national security expenditures)	Veterans' benefits to 1967 ²	Number of years following war veterans' benefits ³		Estimated total benefits under present laws ⁴	Veterans' benefits as a percentage of original war costs
			Peaked	Ended		
American Revolution.....	100	70	(*)	128	70	70
War of 1812.....	93	49	68	131	49	53
Mexican War.....	73	64	43	116	64	88
Civil War (Union only).....	3,200	8,567	60	113	8,580	260
Spanish-American War.....	400	5,256	51	-----	6,000	1,505
World War I.....	26,000	39,854	49	-----	75,000	290
World War II.....	288,000	76,767	-----	-----	290,000	100
Korean Conflict.....	\$ 54,000	12,863	-----	-----	99,000	184

¹ Based on expenditures of the Departments of the Army and Navy to World War I and major national security expenditures thereafter. Usually the figures begin with the year the war began, but in all cases they extend one year beyond the end of actual conflict. See "Historical Statistics of the United States," 1960 ed., pp. 718-720.

² 1968 stat. abst., p. 266.

³ Veterans' Administration, annual reports.

⁴ To World War I estimates are based on Veterans' Administration data. For the last 3 wars estimates are those of the Bradley Commission plus 25 percent (which is the increase in the average value of benefits since the commission made its report). See especially "Veterans' Benefits in the United States," President's Commission on Veterans' Pensions, 1956, pp. 110-117.

⁵ Unknown.

⁶ Assumes 5,700,000 men served an average of 19 months at \$2,835 personnel costs per man-year, \$2,723 operation and maintenance costs per man-year, and procurement costs totaling $\frac{1}{8}$ the increase over previous years. Averages were based on the number of service men divided by the defense budget for each year.

TABLE 2.—HOW WAR LOANS AND INTEREST PAYMENTS INCREASE WAR COSTS

[In millions of dollars]

War	Original cost ¹	Estimated total costs on war loans		Interest payments as a percentage of original costs
		Principal	Interest	
American Revolution.....	100	\$ 64		(*)
War of 1812.....	93	\$ 109	\$ 16	17
Mexican War.....	73	\$ 49	\$ 10	14
Civil War (Union only).....	3,200	\$ 2,600	\$ 1,172	37
Spanish-American War.....	400	\$ 200	\$ 60	15
World War I.....	26,000	21,400	11,000	42
World War II.....	288,000	\$ 215,000	(*)	(*)
Korean Conflict.....	54,000	\$ 10,000	(*)	(*)

NOTES AND SOURCES

¹ See table 1, note 1.

² Treasury Department estimate in C. F. Childs, "Concerning U.S. Government Securities," (1947), p. 405.

³ Unknown.

⁴ See D. R. Dewey, "Financial History of the United States," (1939), p. 134; and Studenski and Krooss, "Financial History of the United States" (1952), p. 79.

⁵ One-half of the annual increase of interest on national debt over \$2,500,000 (average rate prior to war), 1816-36.

⁶ Childs, p. 30.

⁷ One-half the annual increase of interest on national debt over \$1,000,000 (average), 1845-59.

⁸ *Ibid.*, p. 46.

⁹ One-half the annual increase of interest on national debt over \$4,000,000 (average) 1861-91.

¹⁰ Dewey, p. 467.

¹¹ Estimated at 3 percent per year for 10 years on the total balance since much of this debt was refinanced.

¹² The interest on World War I war debts in 1929 had reached \$7,000,000,000, according to the Treasury Department, and was costing \$663,000,000 annually. At the then current rate of payment, approximately \$4,000,000 in additional interest would have been paid out. See John M. Clark, "The Costs of the World War to the American People" (1931), p. 297.

¹³ Henry C. Murphy, "The National Debt in War and Transition" (1950), ch. 18.

¹⁴ The U.S. public debt increased \$16,000,000,000 between 1951 and 1954. It is assumed that \$10,000,000,000 of this increase was owing to the Korean war.

¹⁵ Studenski and Krooss, p. 291.

TABLE 3.—THE ULTIMATE COST OF THE VIETNAM CONFLICT¹

	Billions
1. Original cost:	
(a) Major national security expenditures for the Vietnam Conflict, 1965-70 (fiscal years).....	\$108.5
(b) Cost of supporting American personnel in South Vietnam, 1954-64, at \$25,000 per man per year.....	1.5
Total.....	110.0
2. Veterans' benefits:	
(a) Low estimate, 100 percent of original cost.....	110.0
(b) Medium estimate, 200 percent of original cost.....	220.0
(c) High estimate, 300 percent of original cost.....	330.0
3. Interest on war debt:	
(a) Low estimate, 10 percent of original cost.....	11.0
(b) Medium estimate, 20 percent of original cost.....	22.0
(c) High estimate, 40 percent of original cost.....	44.0
4. Total:	
(a) Low estimate.....	231.0
(b) Medium estimate.....	352.0
(c) High estimate.....	484.0

¹ Assumes the war ends in fiscal 1970. Occupation costs are not included.

Sources: Tables 1 and 2.

TABLE 4.—COST OF AMERICAN WARS, BY RANK

(In millions of dollars)

War	Estimated initial cost ¹	Total veterans' benefits	Estimated interest on war loans	Estimated ultimate cost
World War II.....	288,000	290,000	\$ 86,000	664,000
Vietnam Conflict.....	110,000	\$ 220,000	\$ 22,000	\$ 352,000
Korean Conflict.....	54,000	99,000	\$ 11,000	164,000
World War I.....	26,000	75,000	11,000	112,000
Civil War (Union only).....	3,200	8,580	1,172	12,952
Spanish-American War.....	400	6,000	60	6,460
American Revolution.....	100	70	\$ 20	190
War of 1812.....	93	49	16	158
Mexican War.....	73	64	59	147

¹ Major national security expenditures.

² Assumes an interest rate of 40 percent of original cost, on approximately the same rate of increase for the Civil War and World War I.

³ Medium estimates, see table 3.

⁴ Assumes an interest rate of 20 percent of original cost.

Source: Tables 1-3.

Chairman PROXMIRE. Thank you very much, Professor Clayton. This is certainly a new consideration, at least in my view. I haven't heard anything like this kind of analysis. It is very interesting.

Professor Boulding, I am very interested in your assertion that when defense expenditures go up education is the principal sufferer, and suffers a very large proportion of the shift of resources into defense. Many of us have argued that we would be a stronger nation in the long run if we could expend more on education and less on at least some aspects of our military effort, not only stronger in terms of morally stronger and economically stronger, but actually militarily stronger. Do you have any observations on this?

Mr. BOULDING. Yes; I would agree very much. I think that security, as Senator Fulbright said, is a complex phenomenon. And it is not necessarily increased at all by increasing the military budget. This is a total world phenomenon, and it depends on the learning process. And certainly our internal problems are closely related to the skimping of support to education, especially in the poorer areas. And if we

are in trouble in the cities, especially the central cities, at least some of this is due to the fact that we skimp here.

Chairman PROXMIRE. I am not really clear on how you explain the process by which this effect occurs. Your analysis—and of course you are the president of the American Economic Association, and I have great admiration and respect for your professional capability—but this is such a serious and significant observation that I would appreciate any explanation you could give as to why it happens.

Mr. BOULDING. Just for the record, I am the past president of the American Economic Association.

I think the mechanism arises out of the fact that both the war industry and education are supported out of what I term the grants fund; that is, one-way transfers rather than through the market, and particularly through the tax systems. Even though the military budget is Federal, and education is largely State and local, I think in the minds of the public a tax is a tax. This is all part of the bite. When the military budget goes up this puts pressure on the Federal tax system, as we have seen, and that this creates tax resistance at the local level. We have seen a great deal of this in the last year or two.

Now, the relationships here of course aren't one to one, they aren't simple. But I think the statistical evidence is fairly clear that, at least with short-run variations—that is, if you exclude the trend of some of them—the relationship between military and educational expenditures seems to be, as I say, strongly negative.

Chairman PROXMIRE. The fact is that in World War II and the Korean war and this war we have had a so-called GI benefit bill which provides tuition and board and room for students in higher education.

Mr. BOULDING. That of course is something else. That relates more to secondary expenditures, which I would regard as not part of the real burden, since it involves a redistribution. But I am thinking here in real terms; that is, when the real resources devoted to the war industry go up, something has to go down—that is, assuming we are not just increasing it out of unemployment as we did in the Second World War, but assuming that now we have relatively full employment, as we do, and under these circumstances then there is a real scarcity, a scarcity in the grants economy. And it is an economy in the sense that if something goes up something else has to go down. I am not suggesting that education is the only thing, but statistical evidence suggests that this is highly vulnerable, in fact the most vulnerable element of elements of grants economy.

Chairman PROXMIRE. Dr. Lecht, I found that this point that you made is fascinating on the effects on employment of the shift of resources from military to nonmilitary, and the shift could be in part a tax cut. And Mrs. Griffiths made the very significant point that in her view you wouldn't necessarily get an expenditure by the Federal Government in these areas that many people feel are so desirable. But even if you got part of it through a tax reduction and part of it through some shift in expenditures, you would get an increase in employment of 325,000 jobs with a \$10 billion shift. My question is what part

of the defense budget did you assume would be cut in doing your projection?

Mr. LECHT. Seventy percent of the cutback in purchase in our study was concentrated on purchases of equipment from the aerospace industry in weapons and ordnance and in the communications and electronic equipment industry.

Chairman PROXMIRE. So you would get the same effect if this year the Congress should decide to cut back the defense expenditures \$8 billion to \$7 billion, and then this would create 325,000 more jobs, or something in that neighborhood, according to your projection? And this would be a little different—at the end of a war, there I think you might get less, because you would have a reduction in the employment of people in the Armed Forces; if they terminate their employment with the Armed Forces and shift over to the civilian sector, in a sense there would be more civilian jobs. Whether there would be more jobs in aggregate net is another question.

Mr. LECHT. The additions to the civilian labor force would depend on the extent to which the reductions in the defense budget were accompanied by a decrease in the size of the Armed Forces. The overall employment impact would also be attained by whatever offset programs were adopted when defense spending was reduced.

Chairman PROXMIRE. If the jobs eliminated are more concentrated, then would you not agree that the reallocation would generate a more general and widespread prosperity over the Nation than we would have without reallocation?

Mr. LECHT. The reallocations would increase spending throughout the Nation. However, the reduction in defense spending would be more heavily concentrated in particular areas, say in the States of Washington and California, to cite two. So there might be problems in adjustment—I am sure there would be—for particular communities.

Chairman PROXMIRE. It might help Wisconsin, Michigan, and Pennsylvania, and not some of the other States?

Mr. LECHT. Yes.

Chairman PROXMIRE. Let me finally ask all of you gentlemen this question.

Dr. Schultze indicated that he felt that if you shifted, say, \$10 billion of military spending into the nonmilitary sector one way or another, that you would have about a balanced effect on inflation. I disagree with that very strongly, because I feel that the military expenditure doesn't produce anything to meet an economic need. If instead of producing \$10 billion of military you produce that much of housing, education, and that kind of things, it seems to me the supply would be significant in meeting inflationary demand. He says that this is counterbalanced perhaps by the fact that the military expenditures include a great deal of technical and scientific research which tend to increase productivity, and has a deflationary effect. I would like very much to get the views of you professional economists on this, as to what would be in your view the consequence on inflation of shifting \$10 billion from the military sector into the private sector.

Mr. BOULDING. If the total budget remained the same, what you might call the gross quantitative effect, immediate effect, might not be very large.

Chairman PROXMIRE. But there is a qualitative effect that maybe I have put too much stress on. I would like to have your view.

Mr. BOULDING. The qualitative effect, I am inclined to think that this is rather small, simply because of what you might call the military complex is now so far ahead of the rest of the economy technologically that it really doesn't feed back into it very much. It is a little bit like the relation between American and Indian agriculture; that is, we don't really feed in to Indian agriculture, it is just another world. And because we put in enormous effort into military-space technology, the civilian economy is a backward country.

Chairman PROXMIRE. That is the reason it would seem to me that if you feed some of this technological know-how and expertise and skilled labor back into the civilian economy you would increase your productivity, and you would tend to have a favorable effect in retarding inflation.

Mr. BOULDING. I would agree entirely with that.

Chairman PROXMIRE. Dr. Lecht.

Mr. LECHT. I would agree with Professor Boulding. The immediate effect on inflation might be slight, if it was done within, say, a year or two. However, what you got from that \$10 billion would be different. You might get housing rather than missiles. The long-term effect in shifting the brain drain around would be quite significant. It is amazing to look at how little is spent for research and development in the construction industry, by the railroads, or until very recently in areas such as waste disposal, or for that matter, in education. With good reason, we talk of the miracles of research and development. Yet this is a very one-sided process in which 80 to 90 percent of our spending for R. & D. has been devoted to three areas: defense, space, and atomic energy. The only civilian economy area that figures on anything like a comparable scale in our research and development spending is health-related R. & D.

Mr. BOULDING. The internal brain drain.

Chairman PROXMIRE. Dr. Clayton?

Dr. CLAYTON. I think economists are much better at answering these kinds of questions than the historians.

Chairman PROXMIRE. Mrs. Griffiths?

Representative GRIFFITHS. Thank you very much.

I would like to tell you, Dr. Clayton, that in 1955 I asked the Library of Congress to tell me how much had been spent in this country on war in all its history and how much in peace. And they put two or three Ph. D.'s on it, and it took them quite a little while. And they came out and said that a trillion dollars had been spent at least on war. And they couldn't find anything on peace. And they told me then this 1812 story, that 100 years had to pass before you could estimate the cost of a war.

I thought about that a great deal. And I think there is some reason to say that in the future this will not necessarily be so in veterans'

benefits, because I think that social security and ADC and nursing homes have taken the place of a young woman marrying an elderly man. So that I think you wouldn't necessarily have this. However, you should have made your pitch last week, because we have just increased veterans' benefits very considerably; as of Monday in the House, we passed bill after bill increasing them.

But I think you made a very interesting case against them.

I would like to ask you, Dr. Lecht, if your figure of the \$10 billion tax cut and the \$10 billion spent in civilian purchases considered a probable increase in the building trades wages?

Mr. LECHT. We assumed that wages for building trades workers would increase according to the growth in their productivity plus an allowance of about 3 percent a year because of rising living costs. Since this study was completed over a year ago, we did underestimate the effects of inflationary price increases on the cost of living and on wage increases in the building trades and elsewhere. On the other side of the ledger, the cost of military goods and services has also been increasing.

Representative GRIFFITHS. For a long time I have believed good purchasing practices could cut at least \$10 billion from the cost of the armaments of war without doing anything else, if they would just do a good job of purchasing. Supposing that it were done that way, that you simply pushed down the price of the armaments of war, and cut out nothing, what would that—and you then transferred that \$10 billion into the domestic economy—what would the effects of that be inflationwise?

Mr. LECHT. Probably not very great. It would depend on what the \$10 billion was transferred to. If total demand remained the same in the whole economy, then you would find the prices of military goods might go down somewhat, and the prices of other goods which were in greater demand because of the shifts in spending might conceivably remain the same or go up slightly. Again, what you would be getting for this transfer of expenditure would be quite significant, depending upon what it was spent for. If it were spent for nursing homes you would have a lot more nursing homes. If it were spent for civilian research you would have a great deal more nondefense research and development. This would be the big effect rather than on the overall rate of inflation.

Representative GRIFFITHS. I would like to ask you the same question I asked Senator Fulbright, each of you. How do we make the trade-off? How can we in your judgment cut the expenditures for war and increase the expenditures in domestic economy?

Mr. LECHT. Again, this is a political question, and not one which I think economists have any special competence to answer. However, I would be glad to give you my personal view.

Representative GRIFFITHS. Yes.

Mr. LECHT. I believe this would require an ending of the war in Vietnam and beginning talks with the Russians toward reductions in the mutual escalations of military expenditures. Increases in spending by

one nation for one series of armaments upsets the balance of military power so that they are followed by an offsetting increase by the other side and then by a further increase on new weapons systems which is in turn offset by the other side. Without positive steps to reverse the escalation by both sides, there is a built-in tendency toward increases in defense expenses.

Mr. CLAYTON. May I make a comment on that?

Representative GRIFFITHS. Yes.

Mr. CLAYTON. I think that history shows certain patterns, and what is very popular at one time, as Senator Fulbright indicated a few minutes ago, is not at another. Times change. The public is educated. It changes its values, its assumptions, and its positions. It would seem to me that the first thing to do to get this transfer to happen is to change the assumptions of the public, and the first thing to do to get the public to change their assumptions is to give them, it seems to me, good, hard data about what it is that we are doing and what it is that we are trying to do. I am very optimistic about the changes that have taken place in the last few months indicating changes in public and congressional attitudes on these questions of war. And I would be even more optimistic as we begin to study historically and economically the nature of these changes and bring in the data that we are seeing, I hope, here today and for the next several days that there will be a change in the public attitude.

Representative GRIFFITHS. I feel this will be very helpful. I think Senator Proxmire should be congratulated on setting up these hearings. And I do thank all of you for bringing this data here. I feel that it is of tremendous value to know the costs, and to point out the difference.

But supposing now comes the day in which we are going to be asked to cut down the expenditures at Lockheed, and on the west coast, and in Texas; are we going to say then—well, we are going to put these expenditures of course into automobiles in Michigan—and how can we get all the votes that are necessary really to do it, because the pressure is going to exist on each of those States to maintain the employment within their own area. And they will do a lot of logrolling.

Mr. CLAYTON. This has gone on for some years. And if you note where defense spending has occurred during the cold war, it is concentrated essentially in five States, in California, Texas, New York, Massachusetts, and Connecticut, and a few others. It would seem to me that five States ought not be allowed to run this country, regardless of how large they are.

Representative GRIFFITHS. Unfortunately, they are very populous and they have many Congressmen.

Mr. CLAYTON. When defense expenditures have been cut in the past, in California, for example, where I have tried to make some studies, 60,000 people were laid off when the cut was made in aircraft to missiles. There was a great hullabaloo in California about these people who had lost their jobs. There were 60,000 of them. Well, they found work for 40,000 of them in the missile industry, and things quieted down. I would think that those in this industry, be it missiles or elec-

tronics today, could quite easily with their Ph. D.'s and their mobility find work elsewhere in other States and in other industries.

Representative GRIFFITHS. As Dr. Lecht pointed out, they were going to have quite a few engineers out of work in his example, and we are going to be employing semiskilled labor, right, in the example that you gave?

Mr. LECHE. Doesn't this amount to saying that, if things continue as they have been going in the past, with the past patterns of use of engineers, if we had this shift of expenditures, this is what you would expect to happen? But why should things continue as they have been in the past? We use relatively few engineers, scientists, and system analysts working on civilian economy research and development problems. We have yet to have the equivalent of a Manhattan project concentrating scientific and engineering resources on a large scale to work on the problems in our cities. If we had projects of this scope I doubt if we would be troubled by surpluses of engineers with research and development capabilities.

Representative GRIFFITHS. Wouldn't you suggest it is possible if we turned from war that we will have to change the schooling of the country?

Mr. BOULDING. We do this all the time. And certainly there are adjustments. On the other hand, the American economy and American society is fantastically adjustable. This is its prime virtue. And if I can just answer your previous question, there are two things that I think there is no substitute for. One is courage and the other is leadership. And as of the moment I think some people lack both.

Representative GRIFFITHS. I hope we can make the switch. And I think the information you have brought us does help. And I hope that we can get it spread among the people that the end of the war doesn't mean the end of employment, and there are other things to be done in the world besides fight wars.

Thank you very much.

Chairman PROXMIRE. Congressman Moorhead?

Representative MOORHEAD. Thank you, Mr. Chairman.

Mr. Boulding, in your prepared testimony you talk about this chance of nuclear war being about the order of magnitude of 1 percent per year, and then you say over a hundred-year period it becomes alarming. Does that statistically figure out to 100 percent?

Mr. BOULDING. No; it is 66 percent actually. That is still alarming.

Representative MOORHEAD. Yes; it certainly is alarming. In fact I find it so depressing that I will not pursue the point.

In your testimony you suggest that the United States have a more modest role in the world. When we get into this we seem to only talk in terms of being either world policemen or isolationists. I take it what you are suggesting is something in between these two extremes.

Mr. BOULDING. Exactly; what you say is a realistic appraisal of our capabilities.

Representative MOORHEAD. Today I think we are tending toward the one extreme, and I think we could pull back to a more modest role. One example—and we could consider it even without the termination of hostilities in Vietnam—would seem to be the suggestion of

the 15 attack aircraft carriers, when we find that none of our expected enemies has any—as a matter of fact, there are no other attack aircraft carriers in the world. Have you or any of you gentlemen considered this as an area for reduction in military expenditures?

Mr. BOULDING. Yes.

Representative MOORHEAD. I know that Professor Clayton pointed out that the military budget—or that 80 percent of the controllable part of our budget—is in the military. Would you not say, Professor Clayton, that the largest part of that is in conventional forces as opposed to the nuclear or strategic forces?

Mr. CLAYTON. Yes. I think the Congressional Quarterly in a recent issue, May, I believe, pointed out that there is something in the neighborhood of \$20 million that could be quite easily cut out of the military budget itself.

Representative MOORHEAD. Mr. Lecht, you mentioned that we would have more total jobs as a result of the reduction in military expenditures, but that they might be in different geographical areas and different skills. Would you also assume that we would need expanded manpower training and programs of this nature to relieve any hardship that might result to certain individuals even though the total population would be benefited?

Mr. LECHT. Yes; I believe we would certainly need more manpower training, and manpower training programs oriented to somewhat different groups. Many people demobilized from the Armed Forces, for example, have acquired valuable skills in the Army, say, working as airplane mechanics. If we instituted job training and refresher programs these people could make use of their skills and get civilian jobs. Expanding manpower training programs and liberalizing GI benefits would keep some people from entering the job market in unskilled jobs, and it could prevent some unemployment. Government-sponsored relocation allowances would also be significant in reducing this kind of transitional unemployment.

Representative MOORHEAD. Thank you, gentlemen, very much. You have impressed me with the tremendous cost of our defense establishment. Not only the total cost of veterans' benefits, but also the social cost of the diversion of skilled research talent from our pressing domestic problems.

And I think this has got to be impressed upon the American people.

You have done an excellent job today in doing it.

Thank you very much.

Chairman PROXMIER. Thank you, gentlemen, very, very much.

I think you have made a very helpful contribution to these hearings. And we are deeply in your debt.

Tomorrow the committee will convene at 10 o'clock to hear three distinguished experts on military spending who have made a variety of projections of our future military budget under different assumptions. And I think it will be a most interesting and stimulating morning.

The committee will stand in recess until 10 o'clock tomorrow morning.

(Whereupon, at 12:25 p.m., the committee recessed to reconvene at 10 a.m., Thursday, June 5, 1969.)

THE MILITARY BUDGET AND NATIONAL ECONOMIC PRIORITIES

THURSDAY, JUNE 5, 1969

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON ECONOMY IN GOVERNMENT
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The Subcommittee on Economy in Government met, pursuant to recess, at 10 a.m., in room G-308 (auditorium), New Senate Office Building, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senator Proxmire, and Representatives Griffiths, Moorhead, and Conable.

Also present: John R. Stark, executive director; economists Richard F. Kaufman and Robert H. Haveman; and Douglas C. Frechtling, minority economist.

Chairman PROXMIRE. The subcommittee will come to order.

Before we begin I have a comment about the speech delivered by President Nixon at the Air Force Academy yesterday.

If one reads the speech carefully, the President, in my judgment, gave explicit recognition to the value of the work of this subcommittee and others in the Congress who in the President's words "reveal waste and inefficiency in our Defense Establishment, who demand clear answers on procurement policies * * *" and to those "with sharp eyes and sharp pencils who are examining our post-Vietnam planning with other pressing national priorities in mind."

The President's speech, however, has raised some serious questions about the present inquiry of the subcommittee into the military budget and national priorities. Because of the unfortunately strong language in the beginning of the President's speech, it has been interpreted as an attack on the patriotism of those who are questioning the basic need of this Nation for a military force as large and as burdensome as it now is. This language in the speech seems designed to intimidate those who question whether America's role in the world can be best served by a large and expanding military force instead of a more vigorous dedication of our resources to our domestic programs.

This subcommittee, Democratic and Republican members alike, in its unanimous report last month entitled "The Economics of Military Procurement" found that—

There is a pressing need to reexamine our national priorities by taking a hard look at the allocation of Federal revenues between the military and civilian budgets. Indeed, the inefficiencies described in this report, in addition to being difficult to contend with, raise questions about the very nature and size of the Department of Defense, its place within the framework of the executive branch of the Government, and its relationship and responsiveness to Congress.

The real needs of the Nation, military and civilian, are too important to endanger through bureaucratic arrangements in an agency which in too many instances has been unable to control costs or program results.

This committee is trying to ask the right questions. Do we really need a new nuclear carrier task force at a cost of \$1.8 billion when carriers are sitting ducks for missiles or modern submarines, merely because the Navy has always had 15 capital ships?

In an age of sophisticated missiles, do we need a new manned bomber to be delivered a decade from now at a cost of \$12 billion or more?

Are we really strengthened when there are 10 supply troops for every man in a combat unit?

Do we really need more than 400 major overseas bases, many of which are kept open because of inertia or by historical accident?

Is this country strengthened when our military aid props up potentates or dictators?

And what about the priorities for houses, schools, and jobs? For the extra \$2 billion—and I say the extra \$2 billion, the overrun—which will be paid for one cargo plane, this country could house 3.3 million poor families or 12 million people for 1 entire year. Which has the higher priority?

We must keep the country free by investing in people—in homes, in jobs, in schools.

Luxury military budgets weaken this country. Freedom is stifled when we ignore human needs. Let us get our priorities straight.

One final word. The current national debate on the size of the military budget, on the justification of a number of expensive weapons systems and force levels, and on the relative merits of other nonmilitary programs, must not be stifled by anyone, even by the President of the United States. The false, sacred mantle has been lifted from this subject. The free and open debate occurring now over military needs is healthy—healthy for the military as well as for the taxpayer, healthy for national security needs as well as domestic needs.

The lid is off. It will not easily be replaced. And it should not be.

Representative CONABLE. Mr. Chairman, may I say something?

Chairman PROXMIRE. Yes, indeed.

Representative CONABLE. I was not aware that the meeting was to be opened with such a statement. It seems to me that the President left ample room in his remarks for the function of this committee and for the constructive work I think we are doing in the area of priorities. I don't believe he intended or in fact did impugn the patriotism of anybody questioning defense expenditures.

I would like to say that I think we must achieve in this committee as in other parts of the Government a balance in our viewpoint which acknowledges the needs of the Nation as well as the current clichés

about the military-industrial complex. I am well aware that this currently is a very popular issue, one of questioning defense appropriations generally. And yet it seems to me the President said some things that need to be said, if he is going to provide the kind of strong leadership this country wants. He is not trying to stifle this investigation, quite obviously. But it seems to me that we on this committee have a responsibility also to keep our priorities in mind in the debate, and to consider what our function is here, rather than thinking that somehow we can perform a function that should be as described to the entire Congress; that is, the assessment of priorities with respect to our social needs, our defense needs, and so forth. I don't believe that we are going to make all these decisions here. And I don't believe that it would be appropriate for us to expect the President to accept any decision made here regardless of its relevance.

I think this committee has a constructive function to fulfill. I think we are fulfilling it. I hope we will continue to do it with balance, and not make this a political forum.

Chairman PROXMIER. I think you very much, Congressman Conable. I disagree vigorously as to what the President's speech meant if it means anything. The President said, "In our best circles, questions are being raised about the military force." He said that the Military Establishment was being derided, ridiculed, and so forth. And if he is not talking about Members of Congress, and he is not talking about other people who are speaking out nationally and responsibly and being reported to the public, I don't know what he is talking about.

You see, what I am concerned about is that for the very first time in the 12 years I have been in here, and in the many years that Senator Fulbright has been here, as he said yesterday, for the first time we are having a questioning of our military spending. It has been accepted before really without any effective challenge or question. And I think that this is something that has developed because people have realized that this can be done without political suicide. And I think there is a feeling at least that, when President Nixon spoke out as he did yesterday, there is a tendency once again to resurrect all the political fear that has stifled this kind of dissent and criticism that we have had so usefully in the last few months, and that we did not have for so many years.

It is not as if we have always had this kind of vigorous criticism. We haven't. As Senator Fulbright said, if we stop the ABM—and you may be on one side or the other of that—it will be the first time the military has been stopped in any major request that they have made that has gotten to the Congress. So this is something new. And for that reason I think it is very important that we recognize that it shouldn't be stifled, there shouldn't be any effort, certainly on the part of a man as powerful and as important as the President of the United States, to make statements to discourage criticism.

Representative CONABLE. Once again, sir, I disagree that he is trying to stifle the functions of this committee. It seems to me that there was ample room left in his speech—the speech will speak for itself

in this respect—for criticism in the Congress. I agree with you that criticism is a healthy thing, and that defense should not be a sacred cow. But I don't believe that this committee should be made a political forum for debate. I believe that we are a factfinding group, and that we should listen to the expert witnesses that come to us. And for that reason I will defer any further remarks I wish to make. I know, sir, with your fine, openminded, and accessible position here in the Congress, that we will have ample opportunity for further debate on this.

I simply question whether this is the place for it, and whether we should speculate about the President's motives when his speech eloquently speaks for itself.

Chairman PROXMIRE. Let me just make one other observation. As I said at the beginning, the President did give explicit recognition to what this subcommittee has done in the unanimous report of the Republican and Democratic members released last week—he didn't name it specifically, unfortunately, but I like to think he was talking about this subcommittee.

Thank you, Congressman Conable, very much.

And I apologize to you gentlemen for detaining you.

We are very fortunate this morning to have three very distinguished and qualified witnesses.

Dr. Kaufmann is a professor of political science in the Massachusetts Institute of Technology. He served as consultant in the Department of Defense from 1961 to 1968, which was primarily during the McNamara period, when Secretary McNamara was head of the Defense Department. He has written extensively on the defense decision process during the McNamara years. And the fine book he has written is "The McNamara Strategy," as I recall.

Dr. Kaysen is director of the Institute for Advance Study, Princeton, N.J., and a consultant to the RAND Corp.

I know he is a very busy man, and I am deeply grateful to him for coming here today. He was professor of economics and political economy, and associate dean of the Graduate School of Public Administration, at Harvard University. He served as Deputy Special Assistant to the President for National Security Affairs under President Kennedy. He received the Ph. D. from Harvard University.

Malcolm Hoag is senior economist and systems analyst at the RAND Corp. He has been a professor of foreign affairs at the National War College and a professor of political science and senior fellow in the defense studies program at UCLA. His articles have appeared in *World Politics*, the *Bulletin of Atomic Scientists*, *Foreign Affairs*, and the *Journal of Political Economy*.

He received his Ph. D. in economics in 1950 from the University of Chicago.

Gentlemen, we are honored.

Would you like to proceed, Mr. Kaufmann?

STATEMENT OF WILLIAM W. KAUFMANN, PROFESSOR OF POLITICAL SCIENCE, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Mr. KAUFMANN. Mr. Chairman and distinguished members of the subcommittee, you already have my very hastily prepared statement before you. Therefore, I will be very brief.

I understand that, in testimony on Tuesday, Professor Schultze has already talked about the institutions which might be developed to review the defense budget. Consequently, I would like to speak very briefly about possible approaches to the review, whatever institutional changes the Congress may decide on.

I think that my friends Carl Kaysen and Malcolm Hoag would all agree that defense presents the classic case of choice without markets. That is, the criterion of profit simply does not operate where the Department of Defense is concerned. And the winds of competition as a consequence do not blow very hard on the decisions of the Department. In effect, it is a monopoly, and a supplier with great uncertainty about what constitutes the demand that it has to deal with.

There is of course a market of sorts. And that is war. That is where the supply and the demand meet, if you will. But it is not a marketplace that many of us choose to enter very often.

Nor, slogans aside, is the performance criterion very clear any longer in the nuclear age. I think most of us have increasing difficulty in saying what is meant by superiority or sufficiency, or how they can be related to specific decisions about the forces in the defense budget of the United States.

Attempts have been made to provide a substitute for the market through improved intelligence, through the introduction of such admirable institutions as the Office of Systems Analysis, in the Office of the Secretary of Defense, through incentive contracts, through cost reduction programs, and other measures. But there is no doubt that a great many other forces contribute to shaping the defense budget, and not all of them work to optimize efficiency and effectiveness with respect to our military forces.

Nonetheless, I think it can be fairly said that the budget is primarily if not exclusively the result of four major factors:

Certain key assumptions, about which Carl Kaysen has talked, certain facts, certain inferences from these assumptions and facts about specific objectives, and then finally the comparison of alternative ways of achieving these objectives.

Several points about this system of reasoning should be made. First, despite the necessary restrictions imposed by classification and security, the logic of this process is publicly available in the form of posture statements by various Secretaries of Defense.

Second, most of the key assumptions involve questions of highest national importance.

Third, in my view these assumptions need regular and public review.

Fourth, as we change this chain of assumptions, inferences, and analyses, so we change the defense budget, as I have tried to show in my prepared statement.

Let me give one example of what I am referring to.

The strategic nuclear forces and programs closely associated with them currently account for about 25 percent of the defense budget. Their size, composition, and cost depend very heavily on five factors:

1. Assumptions about the hostility and intentions of the Soviet Union and mainland China, and about the necessity for deterrence.

2. Assumptions about the probability that deterrents might somehow fail, and about the appropriate strategy that we might be required to follow in the event that this unthinkable event does occur.

3. Facts and assumptions about the evolution of Chinese and Soviet strategic nuclear capabilities known in the jargon of the trade as "the threat."

4. Specification of objectives and measures of effectiveness by which to judge the performance of U.S. Forces.

5. The comparison of alternative U.S. strategic postures according to criteria of costs and effectiveness, and the selection of what hopefully will be the most efficient posture for our purposes.

I take it, to follow Senator Proxmire's remarks, that President Nixon was speaking to this last part of this chain of reasoning yesterday when he said:

I am not speaking about those responsible critics who reveal waste and inefficiency in our defense establishment, who demand clearances on procurement problems, who want to make sure a new weapons system will truly add to our defense.

Let me repeat: I think this chain of reasoning is accessible and comprehensible to a wide audience. To betray my own prejudice I find that juniors and seniors at MIT are particularly adept at grasping it.

The same chain of reasoning operates with respect to our theater nuclear forces, and our nonnuclear general-purpose forces. These forces too are very much a function of such factors as our conception of interests, the role we see for the United States in the world, and the commitments that we have made.

They are also a function again of our view of "the threat." And they depend very much on the assumption we make about the number of contingencies that might arise simultaneously, and that we should be able to cope with.

Major changes along this chain of reasoning will bring about changes in our force structure and defense budget, although I should add that our knowledge about some of these matters is limited and defective.

I have obviously oversimplified the process by which these agonizing decisions are made. But in my own view even greater complexity need not and should not prevent the Congress from bringing out and examining in detail the chain of fact and logic—or illogic, perhaps—that results in the defense budget.

My prepared statement attempts to show how the post-Vietnam or a post-Vietnam budget might vary between \$100 billion and \$40 billion as a function of changes in the underlying structure of fact and logic. The range, of course, could be even wider.

I will be happy to discuss this range and the processes of arriving at it further at the pleasure of the committee.

(Mr. Kaufmann's prepared statement follows:)

PREPARED STATEMENT OF PROF. WILLIAM KAUFMANN

ALTERNATIVE POST-VIETNAM DEFENSE BUDGETS (OUTLINE)

1. This analysis has proceeded on the basis of three assumptions which should be articulated:
 - a. The U.S. force structure and defense budget are the product of a certain logic as well as of the complex bargaining which surrounds so large a sum of money;
 - b. The logic of force planning is accessible to the interested public and is readily understandable;
 - c. There is a range of forces and budgets from which to choose; the logic of force planning does not dictate a single solution to the problem of national defense.
2. However, the choice does not lie between zero and the total Gross National Product. On the one hand:
 - a. The world remains a rather dangerous place to live;
 - b. The U.S. cannot entirely escape its recent history:
 - i. It has made many commitments and assumed broad responsibilities;
 - ii. They have become part of the environment of expectations and calculations;
 - iii. A sudden and large-scale change in U.S. policy could result in more costs than benefits.
3. On the other hand, it would be idle to pretend that no responsible change is possible:
 - a. Our future relationship with Japan and our role in Okinawa is one example;
 - b. U.S. troop deployments in Europe and European cooperation is another;
 - c. In short, we have important interests, but they are not absolute:
 - i. They do depend upon price;
 - ii. They also depend on the willingness of friends and allies to share the burden and facilitate the task of mutual defense.
4. Thus, we have certain choices: we can increase or decrease our responsibilities; we can also insist that they be more "equitably" shared.
5. This choice alone means that there is nothing sacrosanct about the post-Vietnam defense budget.
6. There is no magic number which states what we *have* to make by way of expenditures for grand strategy and forces.
7. The range of possibilities is rather wide, and the choice is basically up to the nation; it is not a private matter.
8. However, to recognize that we are dealing with the classic case of the public good is not to say that knowledge of major issues and technical relationships is irrelevant.
9. That knowledge is not occult. There is a serious and expanding discipline of force planning to which the public can and should have access. Only in these circumstances can we have the necessary and responsible debate over the defense budget. The unhappy alternatives are the meat axe (with all its dangers), or an unquestioning acceptance of a bureaucratic and congressional elite whose views may or may not happen to coincide fully with the wishes of the nation.
10. If we reject these two alternatives, and accept the proposition that force planning—and the budget that results from it—is a normative subject with an important corpus of knowledge and discipline to it, what other issues besides

commitments confront us as we reconsider the role of the United States in the post-Vietnam world? And how do these issues affect the defense budget?

11. Perhaps the two dominant issues concern our relationship with the USSR, and the place of nuclear weapons in our defense arsenal.

a. It is easy, tempting, and fashionable to describe the history of US-USSR hostility in terms of a large misunderstanding, and to blame the US and its "establishment" for a good part of the resulting tension and competition;

b. There is a significant probability that this view of the recent past is nonsense, although the USSR might be able to undermine this confidence by allowing access to information about its postwar behavior;

c. In default of such access, however, we may have to continue assuming that US and Soviet interests are not entirely compatible. Both may want the same things; each may have a different view about fair shares and how to achieve them.

12. Assuming that the rivalry will continue with ups and downs, how much does it have to be aggravated and embittered by the competition over nuclear weapons?

a. Both sides have bitten this apple; by-gones cannot be by-gones with respect to such terrible power;

b. Both are vulnerable to widespread destruction, if not complete ruin;

c. Moreover the fatal curiosity has already spread, and the Nuclear Non-Proliferation Treaty may not prevent still others from committing the same sin;

d. These are serious problems, but how far do we have to go in competition with the USSR and in insuring against the danger of Nth-country irrationality?

e. Do we need "superiority" and various devices such as the ABM (Sentinel, Safeguard, Right Guard?) to protect against potential threats? Or is there is a threshold of raw, devastating power beyond which it makes no sense to go?

13. There are other questions regarding nuclear weapons which bear on strategy, force structure, and budgets:

a. Thus, are nuclear weapons about to replace high explosives as the fire-power of the future, so that the white man's burden and the Khartoums of the 1970s will be symbolized by an atomic flash rather than repeater rifles and machine guns

b. On the other hand, if the rules of the game are essentially nuclear, do we regard our interest in the game the same way that we did prior to Alamagordo and *Trinity*?

14. These are old questions, and they may be shopworn. But they remain of consequence for the determination of strategy, forces, and budgets. As matters now stand:

a. We seem to live in a trans-nuclear world;

b. Most of our calculations of interest and expectations about behavior are based on rather traditional views of what constitutes power and how it shifts; the war in Vietnam is in part a function of such views;

c. At the same time, nearly 40 percent of our defense budget is closely tied to nuclear capabilities;

d. If the emphasis should shift, if questions of nuclear power became the crucial yardstick of national security, no doubt our views, calculations, forces, and budgets would undergo a substantial change;

e. It would help, in the circumstances, to know which way we are heading.

15. It does not seem likely, however, that we will get the necessary help. Even a span of 25 years has not yet given the insights to resolve the dilemma, although arms control may help. The upshot of the dilemma is that defense will remain expensive. How expensive will depend in part on the degree of nuclear emphasis.

a. The Eisenhower administration chose to stress nuclear capabilities while expanding U.S. commitments;

b. The Kennedy and Johnson administrations chose to restore our non-nuclear capability as the queen of battles—to stretch the distance between

the nation and nuclear warfare—and to keep our commitments constant;

c. It has now become apparent that we can not only revise these choices, but also change our commitments; and the temptation to do both will be strong.

16. As we come to grips with these decisions, it might be well to keep certain considerations in mind, to wit:

a. There may be a military-industrial complex, but no one has yet found its address and telephone number;

b. In other words, the defense establishment does exist to deal with some real international problems, although it has been and will continue to be the case that these problems will be exploited for other reasons—a propensity which we should be determined to control without losing sight of the problems;

c. In facing these problems we need to acknowledge that no one has yet demonstrated that nuclear superiority—strategic or tactical—can be satisfactorily defined, or even if defined, can be exploited diplomatically or militarily to any meaningful end;

d. Nonetheless, we cannot escape the need to maintain secure second-strike nuclear capabilities for tactical as well as strategic purposes; and we have to recognize that the size and composition of these capabilities cannot be wholly divorced from the forces of potential enemies;

e. Where the non-nuclear general purpose forces are concerned, their costs are extremely sensitive to such factors as the number of contingencies we plan to meet simultaneously, the areas in which we choose to fight, the extent to which we are prepared to rely on these forces and the forces of our allies as substitutes for nuclear capabilities, and the size of the force that we keep in the active inventory;

f. Furthermore, there may well be sectors of the non-nuclear general purpose forces—as may also be the case with respect to the nuclear forces—where capabilities have been maintained after the original logic for them has expired, or where we could be more efficient than we now are;

g. Finally, we need to recognize that there are great uncertainties facing us when we come to grips with the planning of our forces, that there is an understandable bias toward conservatism in the face of these uncertainties (although this conservatism can become a two-edged sword in a competitive situation), and that in many areas we still have to rely on history, rules of thumb, and judgment rather than on theory in the determination of force size and composition.

17. To evoke this “wisdom” still does not get us to the hard facts of post-Vietnam defense budgets. Broad generalizations may help give direction, but they are not of much assistance when it comes to the crunch of saying how much we should spend for what. The task is complicated not only by uncertainty and multiple assumptions, but also by security classification and the nature of the defense establishment itself. Admittedly,

a. Among his many services to the nation, Robert McNamara began to describe this establishment in terms of its major missions and the forces and resources allocated to them;

b. Even so, the outsider who wants to analyze our defense expenditures faces momentous problems the moment he tries to come to grips with the budget, despite its relative explicitness;

c. Although the cost of many of our defense programs is known or can be inferred from the program budget, it is also the case that large chunks of the budget are not obviously related to the Strategic Nuclear and General Purpose Forces Programs;

d. Nearly 50 percent of the defense budget has this disquieting character.

18. Despite such difficulties, a student of the defense budget as a whole (unintended pun) is not totally without resources:

a. The last eight years in particular have witnessed an extraordinary degree of candor on the part of Mr. McNamara in the form of his own unclassified posture statement and the hearings on the defense budget;

b. Despite the limitations of the program budget in its unclassified form, we do have a relatively systematic account of how we have allocated our defense resources over these years;

c. And it is possible to obtain some idea of what the war in Vietnam has done to our defense expenditures, and what a post-Vietnam budget might look like.

19. We are fortunate, furthermore, in that students of defense have begun to ask questions about the possible shape of the post-Vietnam budget:

a. Charles L. Schultze, a former Director of the Bureau of the Budget, has projected future defense expenditures—assuming an end to the war—on the basis of programs already approved he shows a defense budget of \$70 billion by FY 1971, and \$76 billion by FY 1974;

b. Carl Kaysen, Director of the Institute for Advanced Study and former aide to President Kennedy, has had the courage to suggest a specific defense budget; he has recommended a figure of \$50 billion for 197X, after expenditures for the war in Vietnam have ceased and a strategic arms control agreement with the USSR has been reached;

c. Malcolm W. Hoag of the RAND Corporation has taken exception to the Kaysen budget and presented one of his own:

i. Even after Vietnam he sees no escape from a defense expenditure of around \$72 billion in FY 1971, with rises in subsequent years;

ii. In his view, Kaysen has been unrealistic in banking on an arms control agreement with the USSR to damp down expenditures on the strategic arms race, and he questions the wisdom of deferring deployment of MIRVs and a light ABM;

iii. He also argues that Kaysen has been highly arbitrary in his rejection of any future commitment to Southeast Asia and his willingness to reduce U.S. forces in Europe;

iv. And he maintains that Kaysen has ignored the effects of inflation and program modernization on a post-Vietnam defense budget.

20. While this particular debate has been developing, another issue has found its way into the public view; the issue in question has to do largely with the efficiency of certain major defense programs and practices:

a. On June 28, 1968, the *Congressional Quarterly* made the case—obtained from anonymous sources in the Pentagon—that the FY 1969 defense budget could be cut by as much as \$10.8 billion without affecting U.S. commitments, the war in Vietnam, or the fighting effectiveness of U.S. forces worldwide;

b. Nine months later, in March, 1969, Robert S. Benson—formerly in the Office of the Comptroller, Office of the Secretary of Defense—published an article in the *Washington Monthly* which made much the same case:

i. Benson, however, was more modest than his predecessors;

ii. He claimed potential savings of only \$9 billion a year and was more willing to take his chances with nuclear weapons than the anonymous sources of the story in the *Congressional Quarterly*.

21. There is a considerable overlap in the recommendations for savings made by the *Congressional Quarterly* and Benson; Professor Seymour Melman of Columbia has exploited this "consensus" to produce a defense budget which reduces "military overkill and waste," assumes the end of the war in Vietnam, practically wipes out the AEC, and somehow ends up with an FY 1970 defense expenditure of a little more than \$26 billion:

a. So far that is the lowest bid in the current DOD auction;

b. However, it should not take long for someone to discover that U.S. defense expenditures stood at less than \$2 billion a year as late as 1939;

c. No doubt when that happens, new and still lower bids will be forthcoming.

22. Meanwhile, the problem of relating strategy, forces, and budgets will remain, a problem accompanied by a number of questions:

a. Given that so much of the defense budget falls outside the two major programs of Strategic and General Purpose Forces that we have become accustomed to talking about, how much can we say about how increases or decreases in these programs will affect total defense expenditures?

b. How meaningful is it to make uniform percentage adjustments in other categories of the budget once changes in the Strategic and General Purpose Forces programs have been effected?

c. And why should we accept the contention that the military establishment has an annual deferred demand of around \$14 billion which must be honored?

23. These are difficult questions and there are no obvious answers to them; however, for the concerned budget-watcher, there are some clues to follow:

a. It is worth noting, for example, that the Strategic and General Purpose Forces programs have tended to drive the rest of the defense budget during the past six years, and the nature of the relationship has been quite regular;

b. How much we spend on airlift and sealift, guard and reserve forces, central supply and maintenance, training, and administration seems to depend very heavily on what we do with respect to our General Purpose Forces; in fact, the relationship has been close to constant over the past six budgets (including FY 1970), even with the war in Vietnam;

c. On the other hand, the percentages spent on intelligence and communications and research and development have tended to vary inversely with the percentage spent on the Strategic Forces;

d. It seems possible, therefore, to say roughly what will be the effects on the rest of the budget of changes in these two major programs, and Kaysen deserves far more credit than he has received for leading the way in this respect;

e. Schultze and Hoag also put us in their debt;

f. Schultze has clearly spelled out the consequences of going forward with currently approved modernization programs in the 1970s, including such projects as:

	Billions
i. Investment costs of Minuteman II and III-----	\$4.6
ii. Poseidon -----	2.5
iii. Sentinel -----	5.5
iv. 4 CVAN's-----	2.2
v. 5 Nuclear-powered escort ships-----	0.6
vi. 40 new destroyers-----	2.0
vii. 500 or so F-14's-----	5.0

g. Hoag, on the other hand, seems to imply that all this deferred demand is valid and should be satisfied *in toto* as an increment to the defense budget.

24. He may be entirely right, and this is not the place, in any event, to argue the merits of specific programs:

a. But it is worth mentioning that simply because such programs have been incorporated into a five-year plan does not make them sacrosanct;

b. Furthermore, it has been characteristic of recent defense management that it has obliged the Services to give up something old in order to gain something new;

c. Whether that rule will obtain in the future is uncertain; but it is of some interest that if we took the savings suggested either by the *Congressional Quarterly* or Robert Benson, we would acquire more than 70 percent of the resources necessary to meet the Hoag requirement;

d. In other words, the defense budget need not be regarded as so tight or so elegantly allocated that we lack the possibility for major tradeoffs in the future;

e. Even if we hold commitments, contingencies, and concepts constant, we may still have room for maneuvers in the defense budget.

25. The history of FY 1963-1966 is instructive in this respect; after the initial jump in the defense budget—on the order of \$4-5 billion in FY 1962—expenditures leveled out at less than \$50 billion a year for the next three years:

a. Despite this "ceiling", it proved possible to support a small war in Vietnam, create a large second-strike strategic nuclear capability, and expand as well as modernize our General Purpose Forces;

b. Prices have increased substantially since FY 1965, and so have the salaries that we pay our servicemen;

c. Even so, we could buy the flexibility of FY 1965 at around \$60 billion in FY 1972 prices, even allowing for some deferred demand.

d. For example, procurement money (TOA) in the FY 1965 budget ran as follows:

Program	[In millions of dollars]	Procurement
I. Strategic retaliatory forces	-----	2,493.0
II. Continental air and missile defense forces	-----	302.9
III. General purpose forces	-----	8,403.6
IV. Airlift and sealift forces	-----	746.5
V. Reserve and guard forces	-----	142.6
Total	-----	12,088.6

e. This procurement money was distributed by Service as follows:

Procurement	I	II	III	IV	V
Equipment and missiles, Army		27.1	1,600.3	0.7	48.2
Aircraft and missiles, Navy	458.9	7.1	2,143.0		11.1
Shipbuilding and conversion, Navy	70.8		1,847.0	27.2	
Other procurement, Navy	149.2	35.8	719.8		12.7
Procurement, Marine Corps			170.8		22.2
Aircraft and procurement, Air Force	463.6	83.8	1,508.5	693.7	38.6
Missile procurement, Air Force	1,225.5	15.1	134.1		
Other procurement, Air Force	125.0	134.0	280.1	24.9	9.8
Total	2,493.0	302.9	8,403.6	746.5	142.6

26. To point out that \$60 billion a year is not an impossible target to aim at is not to defend it as the magic number of the future; the defense budget is too dependent a variable to permit such confidence, and the choice, in any event, is for the nation.

27. It may not be amiss, however, to point out the range within which the choice will probably have to be made:

a. We could, of course, adopt the maxim that he who controls space controls the world and—among other things—try to fortify the moon;

b. At the other extreme, we could retreat to the very modest role of hand-aiden to the United Nations suggested by Professor Melman;

c. If we reject these two extremes, however, and maintain something like our current posture in the world, the range of choice seems to lie between about \$100 billion and \$40 billion a year;

d. At the higher end of the range, we would be engaging in a major expansion of our strategic nuclear forces and at the same time retaining the so-called Vietnam augmentation as a permanent part of our General Purpose Forces;

e. At the low end of the range, we would be maintaining the Polaris/Poseldon force on station, phasing out all land-based offensive and defensive capability, cutting back on the R & D associated with the strategic forces, and reducing the General Purpose Forces somewhat below the level of the Eisenhower years;

f. In addition, getting down to the \$40 billion mark may require application of at least some of the cuts recommended by the *Congressional Quarterly* or Benson; it may also mean both a reduction in overseas commitments and a greater dependence on nuclear weapons, at least for declaratory purposes.

28. To bring in a post-Vietnam defense budget at around \$60 billion a year—assuming no change in commitments, contingencies, or strategic concepts—would probably require actions of the following character:

a. Deferral of the decision to deploy Safeguard and Minuteman III, and phaseout of older-model B-52s;

b. Cessation of major funding for the theater nuclear forces and a greater reliance on the strategic forces for the performance of the tactical mission, to the extent that it is even necessary;

c. Reduction of the General Purpose Forces to the level of FY 1965—a reversion, in other words, to the baseline force;

d. Reductions in other major programs along the lines suggested by the *Congressional Quarterly* or Benson;

e. Application of these savings to such force modernization as may be necessary.

29. Although the number of possible permutations in the defense budget is very large, there probably are certain parts of it which cannot be significantly varied in the future:

a. We are now committed, for example, to substantial raises in pay for both civilians in government service and our military men; and we must allow for those commitments in calculations about future defense budgets;

b. It is also worth noting that the National Guard and Reserve forces do not undergo change easily;

c. Now that the Guard plays such a large role in our domestic affairs, we should probably anticipate even further resistance to changes (reductions, in particular) in the Federal share of its costs;

d. It may be well, in other words, to treat the budgetary programs for personnel and the reserves more nearly as a constant than as a variable, at least for the near-term future.

30. To say that the rest of the defense budget can be substantially varied is not to argue that the process of varying it will prove easy, even if the national choice is to reduce it in the aftermath of Vietnam:

a. Already, as the costs of the war have apparently declined somewhat, resources have been transferred within the defense budget to meet deferred military demand rather than returned to the Treasury (the amount in the original FY 1970 budget has been \$3 billion from the war plus \$1 billion from DOD's share in increased Federal revenues);

b. This process could well continue, whether fully justified or not, unless the defense budget is subjected to the most careful and continuing scrutiny.

31. To make the point is not to argue that the demand is unwarranted or that such transfers are illegitimate:

a. Rather, what must be of concern is that the transfers may continue to take place without a full-scale examination of where the nation wishes to head in the years to come;

b. New programs, whether as a function of deferred demand to meet the changing capabilities of potential enemies or modernization (as in the case of the Navy's aging escort fleet), deserve close consideration at their outset;

c. Otherwise, as investments are sunk into them, interests become vested, and cancellation costs rise, they become most difficult to halt.

32. As a last resort, a rigid and arbitrary budget ceiling can be imposed on the Department of Defense, and the Congress may well insist on such a step:

a. But there are various and quite effective strategies for poking holes in the ceiling, as the Eisenhower administration discovered;

b. And ceilings can result in serious distortions in the force structure unless they are accompanied by a detailed and systematic effort to assure the allocation of limited resources according to the basic preferences of the nation.

33. It has been said that war is too important to be left to the generals, and that defense is too important to be left to the Department of Defense:

a. We have tended nonetheless to rely on the experts except in moments of extreme crisis;

b. And we have been inclined to treat the subjects of strategy, force structure, and defense budgets as matters unworthy of serious and sustained study;

c. Neither attitude is any longer justifiable, if it ever was;

d. The nation can obtain the knowledge necessary to decide what it needs for its safety, and the incentives for it to engage seriously in the process of allocation are very strong;

e. After all, in the final analysis, it is the only appropriate agency to do so.

CHARLES L. SCHULTZE MILITARY EXPENDITURE PROJECTIONS¹

[In billions of dollars]

	Fiscal year 1969	Increments from fiscal year 1969 to fiscal year 1971	Fiscal year 1971	Increments from fiscal year 1971 to fiscal year 1974	Fiscal year 1974
Total, including costs of Vietnam.....	79		91		100
Pay increases ²		4.2		4.5	
Price increases.....		1.6		2.9	
Program increases.....		6.2		1.6	
Minus Vietnam savings.....	-1		-21		-24
Total.....	78	12.0	70	9.0	76

¹ From Charles L. Schultze, "Budget Alternatives After Vietnam," in Kermit Gordon, ed., "Agenda for the Nation," the Brookings Institution, Washington, D.C., 1968.

² Excludes potential cost increases from planned conversion of military pay to straight-salary basis.

RECENT AND PROPOSED MILITARY BUDGETS¹

[In billions of dollars]

Military program	TOA for fiscal year 1964	TOA for fiscal year 1964 ² (in 1969 prices)	TOA for fiscal year 1969	Increase of fiscal year 1969 over fiscal year 1964 (in 1969 prices)	Synthetic budget for fiscal year 1970 (in 1969 prices)
(1)	(2)	(3)	(4)	(5)	(6)
Strategic forces.....	9.3	11.1	9.6	-1.5	5
General-purpose forces.....	17.9	21.7	35.2	³ +13.5	⁴ 17.5
Intelligence and communications.....	4.3	5.0	6.3	⁵ +1.3	4.3
Airlift and sealift.....	1.1	1.3	1.8	+ .5	1.3
Guard and Reserve forces.....	1.9	2.5	3.0	⁶ + .5	3.0
Research and development.....	5.0	6.2	5.1	-1.1	5.6
Central supply and maintenance.....	4.1	4.9	7.3	⁷ +2.4	3.9
Training, medical, etc.....	5.5	6.8	9.8	⁸ +3.0	6.1
Administration and associated activities.....	1.2	1.3	1.7	⁹ + .4	1.2
Support of other nations.....	1.3	1.3	2.7	¹⁰ +1.4	3.5
Total obligational authority.....	51.6	62.1	82.5	+20.4	50.0

¹ Taken from Carl Kaysen, "Military Strategy, Military Forces, and Arms Control," in Kermit Gordon, ed., "Agenda for the Nation," Brookings Institution, Washington, D.C., 1968.

² Derived from col. 2 by assuming each account experienced the same degree of price increase.

³ Large reduction from 1964 level (in 1969 prices).

⁴ Especially large reduction to take account of the fact that fiscal year 1964 was a year of very rapid procurement of missiles. Reduced amount would still allow for some procurement.

⁵ Increase of 1969 over 1964 in 1969 prices heavily influenced by activity in Vietnam.

⁶ Small reduction from 1964 level (in 1969 prices).

Malcolm W. Hoag: Hypothetical fiscal year 1971 defense budget (estimated in 1969 dollars)*

[In billions of dollars]

Base year fiscal 1965.....	47.4
Plus "simple" inflation, 1965-69.....	10.0
Plus "modernization/inflation," 1965-71.....	14.6
Total hypothetical expenditures in fiscal 1971 (?).....	72.0
Actual DOD expenditures, fiscal 1969 (?).....	80.0

*From Malcolm W. Hoag, "A New Administration Faces National Security Issues: Constraints and Budgetary Options," p. 3959, The RAND Corp., November 1968.

*Congressional Quarterly: Feasible reductions in the fiscal year 1969 defense budget*¹

[Savings in millions of dollars]

Program and action

Anti-ballistic-missile defense:	
Reduce fiscal year 1969 request of \$1.2 billion.....	1,100
Cut previous appropriations.....	200
Continental air defense:	
Phaseout SAGE.....	1,000
Phaseout SAM's and defer on new SAM's.....	850
Manpower:	
Reduce Army manpower by 218,000.....	2,180
Reduce Navy manpower by 90,000.....	900
Reduce Air Force manpower by 67,500.....	675
Reduce Marine Corps manpower by 40,000.....	400
Air Force tactical aircraft:	
Substitute A-37 for A-7D.....	210
Drop inessential navigation and fire control systems for F-4E.....	30
Drop Mark II electronics system for F-111D.....	350
Continue A-7A and drop the A-7E.....	110
Navy tactical aircraft:	
Drop inessential navigation and fire-control systems for F-4J.....	50
Cancel VFX-1.....	287
Army aircraft:	
Reduce helicopter procurement to 650.....	360
Drop Cheyenne helicopter.....	150
Antisubmarine warfare carrier forces:	
Mothball all 8 ASW carriers.....	160
Mothball 32 other associated ships.....	110
Deactivate aircraft for these carriers.....	100
Attack carrier forces:	
Mothball 3 attack carriers.....	120
Mothball escort ships.....	130
Phaseout 2 airwings.....	27
Defer construction on CVAN's.....	85
Amphibious forces:	
Mothball most obsolete 50 of 142 assault ships.....	100
Defer funds for new assault ship (LHA).....	216
Defer fast deployment logistic ships (FDL's).....	184
Space: Defer manned orbital laboratory (MOL).....	600
Total savings.....	10,684

¹From the Congressional Quarterly, "Defense Budget Cuts of \$10,800,000,000 Seen Feasible," June 28, 1968, pp. 1605-1610.

*Robert S. Benson: Feasible reductions in the fiscal year 1970 defense budget*¹

[Savings in millions of dollars]

Program and action:	
Cancel MOL.....	576
Reduce Army basic training.....	50
Reduce annual assignment changes of manpower.....	500
Reduce leave time to economize on manpower.....	450
Control cost escalation on new weapon systems.....	2,700
Reduce attack carriers from 15 to 10.....	400
Reduce ASW carriers from 8 to 4; cancel VSX.....	600
Reduce Marine Corps amphibious capability.....	100
Reduce U.S. troops and tactical aircraft in Europe.....	1,500
Halt Sentinel.....	1,800
Reduce CONAD to a warning system only.....	600
Total.....	9,276

¹From Robert S. Benson, "How the Pentagon Can Save \$9,000,000,000," in Washington Monthly, vol. I, No. 2, March 1969.

THE STRATEGIC NUCLEAR FORCES AND THEIR RELATIONSHIP TO OTHER PROGRAMS, FISCAL YEARS 1965-70

[In billions of dollars]

Program	Fiscal year—											
	1965		1966		1967		1968		1969		1970	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Strategic nuclear forces.....	6.9	43	6.5	39	6.5	39	7.6	43	9.1	46	9.6	45
Intelligence and communications.....	4.5	28	5.0	31	5.4	33	5.7	32	6.0	30	6.2	29
Research and development.....	4.7	29	4.8	30	4.7	28	4.4	25	4.7	24	5.6	26
Total.....	16.1	100	16.3	100	16.6	100	17.7	100	19.8	100	21.4	100

GENERAL-PURPOSE FORCES AND THEIR RELATIONSHIP TO OTHER PROGRAMS, FISCAL YEAR 1965 THROUGH
FISCAL YEAR 1970

(Dollar amounts in billions)

Program	1965		1966		1967		1968		1969		1970	
	Amount	Per- cent	Amount	Per- cent	Amount	Per- cent	Amount	Per- cent	Amount	Per- cent	Amount	Per- cent
General-purpose forces	\$18.9	56	\$28.8	61	\$31.9	59	\$32.4	57	\$33.2	57	\$32.1	55
Airlift and sealift	1.3	4	1.6	3	1.9	3	1.9	3	1.6	3	2.1	4
Guard and Reserve forces	1.9	6	2.3	5	2.7	5	3.2	6	2.7	5	2.9	5
Central supply and maintenance	4.7	14	5.9	13	7.7	14	8.2	14	8.8	15	9.0	15
Training, medical, etc.	5.9	17	7.4	15	9.0	17	10.0	18	10.2	18	10.7	18
Administration and associated activities	1.2	3	1.5	3	1.3	2	1.3	2	1.5	2	1.5	3
Total	33.9	100	47.5	100	54.5	100	57.0	100	58.0	100	58.3	100

BUDGET PROGRAMS AND TOTAL OBLIGATIONAL AUTHORITY, FISCAL YEAR 1964

(In millions of dollars)

Appropriation title	Strategic retaliatory forces	Continental air and missile defense forces	General-purpose forces	Airlift and sealift forces	Reserve and Guard forces	Research and development
Military personnel	1,260.4	658.4	5,455.8	381.5	969.5	265.0
Operation and maintenance	956.0	670.9	3,373.5	228.5	752.6	40.1
Procurement	4,218.9	456.9	8,581.0	667.9	192.5	82.8
R.D.T. & E.	697.4	49.4	588.5	15.0	1.0	4,942.0
Military construction	185.4	103.1	143.5	12.0	44.2	80.4
Family housing						
Civil defense						
Military assistance						
Total	7,318.1	1,938.8	18,142.3	1,305.1	1,959.8	5,410.3
Department of the Army		289.2	6,374.6	26.6	1,041.2	1,386.9
Department of the Navy	1,859.3	191.7	8,469.4	36.8	376.9	1,189.8
Department of the Air Force	5,458.8	1,457.8	3,298.4	1,241.7	541.7	2,454.2
Defense agencies/OSD						379.4
Office of Civil Defense						
Military assistance						

BUDGET PROGRAMS AND TOTAL OBLIGATIONAL AUTHORITY, FISCAL YEAR 1964

(In millions of dollars)

Appropriation title	General support	Retired pay	Civil defense	Military assistance	Undistributed	TOA
Military personnel	4,040.7	1,229.0			2.7	14,263.1
Operation and maintenance	5,687.1				5	11,709.2
Procurement	2,250.4					16,450.4
R.D.T. & E.	840.6					7,133.9
Military construction	415.4					984.2
Family housing	615.7					615.7
Civil defense			111.6			111.6
Military assistance				1,150.0		1,150.0
Total	13,885.9	1,229.0	111.6	1,150.0	3.2	52,454.1
Department of the Army	3,612.2					12,730.6
Department of the Navy	2,856.5				3.2	14,983.7
Department of the Air Force	6,002.6					20,455.2
Defense agencies/OSD	1,414.6	1,229.0				3,023.0
Office of Civil Defense			111.6			111.6
Military assistance				1,150.0		1,150.0

BUDGET PROGRAMS AND TOTAL OBLIGATIONAL AUTHORITY, FISCAL YEAR 1965

[In millions of dollars]

Appropriation title	Continental					
	Strategic retaliatory forces	air and missile defense forces	General-purpose forces	Airlift and sealift forces	Reserve and Guard forces	Research and development
Military personnel.....	1,246.2	643.8	5,679.1	390.5	1,060.1	280.5
Operation and maintenance.....	1,081.8	711.5	3,570.1	265.9	800.7	41.4
Procurement.....	2,493.0	302.9	8,403.6	746.5	142.6	86.1
R.D.T. & E.....	378.0	18.3	624.0	9.4	2.1	4,966.1
Military construction.....	131.1	79.2	246.5	12.5	37.7	112.4
Family housing.....						
Civil defense.....						
Military assistance.....						
Total.....	5,330.1	1,755.6	18,523.4	1,424.8	2,043.2	5,486.6
Department of the Army.....		250.5	5,737.4	29.3	1,089.2	1,457.7
Department of the Navy.....	1,067.3	139.4	9,157.4	65.0	380.7	1,254.3
Department of the Air Force.....	4,262.9	1,365.7	3,628.5	1,330.5	573.3	2,329.8
Defense agencies/OSD.....						444.8
Office of Civil Defense.....						
Military assistance.....						
Undistributed.....						

BUDGET PROGRAMS AND TOTAL OBLIGATIONAL AUTHORITY, FISCAL YEAR 1965

[In millions of dollars]

Appropriation title	Continental					TOA
	General support	Retired pay	Civil defense	Military assistance	Undistributed	
Military personnel.....	4,097.7	1,399			172	14,969.0
Operation and maintenance.....	5,924.4					12,396.0
Procurement.....	2,714.4					14,889.2
R.D.T. & E.....	779.1					6,777.0
Military construction.....	550.0					1,169.4
Family housing.....	719.4					719.4
Civil defense.....			358			358.0
Military assistance.....				1,150		1,150.0
Total.....	14,785.1	1,399	358	1,150	172	52,427.9
Department of the Army.....	3,808.5					12,372.6
Department of the Navy.....	3,037.0					15,101.6
Department of the Air Force.....	6,338.7					19,829.1
Defense agencies/OSD.....	1,600.8	1,399				3,444.6
Office of Civil Defense.....			358			358.0
Military assistance.....				1,150		1,150.0
Undistributed.....					172	172.0

DEFENSE BUDGETS FOR FISCAL YEAR 1965 AND FISCAL YEAR 1970—TOTAL OBLIGATIONAL AUTHORITY

[In billions of dollars]

	McNamara (fiscal year 1965)	Clifford (fiscal year 1970)	Fiscal year 1970 plus 10 percent
PROGRAM			
Strategic forces.....	6.9	9.6	10.6
General-purpose forces.....	18.9	32.1	35.3
Intelligence and communications.....	4.5	6.2	6.8
Airlift and sealift.....	1.3	2.1	2.3
Guard and Reserve forces.....	1.9	2.9	3.2
Research and development.....	4.7	5.6	6.2
Central supply and maintenance.....	4.7	9.0	9.9
Training, medical, etc.....	5.9	10.7	11.7
Administration and associated activities.....	1.2	1.5	1.7
Support of other nations.....	1.2	3.2	3.5
Unfunded (—) current service retirement pay.....	— .5	.2	.2
Total obligational authority.....	50.7	83.1	91.4
CATEGORY			
Department of the Army (including Civil Defense).....	12.4	26.4	29.0
Department of the Navy.....	14.7	24.4	26.8
Department of the Air Force.....	19.5	26.2	28.8
Defense agencies.....	2.5	4.6	5.1
Defense family housing.....	.6	.6	.7
Military assistance.....	1.0	.7	.8
Total obligational authority.....	50.7	82.9	91.2

DEFENSE BUDGETS FOR FISCAL YEARS 1965 AND 1970, NEW OBLIGATIONAL AUTHORITY AND OUTLAYS

[In billions of dollars]

Category	McNamara, fiscal year 1965	Clifford, fiscal year 1970	Laird, fiscal year 1970 (as of Mar. 19, 1969)
Military personnel.....	14.8	24.4	24.4
Operation and maintenance.....	12.6	21.9	22.0
Procurement.....	14.1	25.1	21.6
Research, development, test, and evaluation.....	6.5	8.2	8.3
Military construction.....	1.1	2.0	1.3
Defense family housing (including homeowners assistance).....	.6	.6	.6
Military assistance.....	1.0	.7	.4
Other (civil defense; special foreign currency program).....	.1	.1	.1
Total obligational authority.....	50.8	83.0	78.7
Financial adjustments.....	— .2	— 2.4	— .6
New obligational authority.....	50.6	80.6	78.1
Outlays.....	47.4	79.0	(¹)
Outlays as percent of gross national product.....	7.3	8.3	(¹)

¹ Not yet available.

SAMPLE POST-VIETNAM DEFENSE BUDGETS¹ (IN 1972 PRICES)

[In billions of dollars]

Type of budget	TOA	Strategic forces	General-purpose forces	Intelligence and communications	Airlift and sealift	Guard and Reserve forces	Research and development	Central supply and maintenance	Training, medical, etc.	Administration and associated activities	Support of other nations	Retirement pay and pay raise
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Fiscal year 1965 inflated.....	67.9	8.2	22.7	5.4	1.6	2.3	5.7	5.7	7.0	1.4	1.4	6.2
2. Fiscal year 1970 inflated.....	97.1	10.6	35.3	6.8	2.3	3.1	6.1	9.9	11.7	1.6	3.5	6.2
3. Postwar "superiority".....	93.6	16.6	26.4	10.4	1.9	2.8	10.8	6.7	8.0	1.4	2.4	6.2
4. Postwar baseline.....	70.5	10.6	21.6	5.9	1.5	2.0	8.1	5.4	6.6	1.2	1.4	6.2
5. Streamlined baseline.....	59.4	7.8	19.0	5.0	1.4	2.0	5.2	4.8	5.8	1.0	1.2	6.2
6. "Eisenhower" posture.....	53.6	7.8	17.0	5.0	1.2	1.8	5.2	4.2	5.1	0.9	1.2	4.2
7. Minimum deterrence.....	42.2	4.3	15.0	2.8	1.0	1.6	2.9	3.8	4.6	0.8	1.2	4.2

¹ See next page for explanation of the budgets.

ASSUMPTIONS GOVERNING THE SAMPLE DEFENSE BUDGETS

1. *FY 1965 Inflated*.—This is the original FY 1965 defense budget with the following changes:

- a. The first ten categories are inflated by 20 percent;
- b. Retirement pay and a pay raise are added.

2. *FY 1970 Inflated*.—This is the budget presented by Former Secretary of Defense Clifford. It has been inflated by 10 percent in the first ten categories, and a pay raise of \$6 billion has been added.

3. *Postwar "Superiority"*.—This budget has been arrived at by taking the following steps:

- a. Adding \$6 billion to the Strategic Forces in order to start procuring 700 Improved Capability Missiles, 210 AMSA, AWAOS and the F-106X, a heavy ABM defense, and an expanded fallout shelter program;
- b. Expanding Research and Development and Intelligence and Communications proportionately;
- c. Reducing the budget by \$16.7 billion to account for the end of the war in Vietnam;
- d. Retaining the forces acquired during the Vietnam buildup

4. *Postwar Baseline*.—This budget reflects not only the end of the war in Vietnam, but also a reduction in the General Purpose Forces to the level of about FY 1965. However, the strategic and affiliated programs are maintained near the levels of the FY 1970 budget.

5. *Streamlined Baseline*.—This budget is intended to reflect the following characteristics:

- a. deferral of the decision to deploy Safeguard and Minuteman III, and phaseout of older-model B-52's;
- b. cessation of further expenditures on theater nuclear forces;
- c. potential for modernization of the forces to the extent that older programs are traded off against needed new ones, and through salvage of high-value Vietnam surpluses.

6. *"Eisenhower" Posture*.—This budget differs from the *Postwar Baseline Posture* (no. 4) in the following respects:

- a. Strategic Forces and associated programs are patterned after the *Streamlined Baseline Posture* (no. 5);
- b. 6 division forces and 6 tactical air wings are dropped from the force structure, and General Purpose force planning is based on the assumption of the capability simultaneously to cope with one major and one minor contingency;
- c. Proportionate reduction in other programs associated with the General Purpose Forces (categories 4, 5, 7, 8, and 9), and a cut in military assistance;
- d. A reduction in the pay raise to reflect the reduction in manpower.

7. *Minimum Deterrence*.—This title is probably inappropriate. The budget still allows for major forces, but it differs from the *"Eisenhower" Posture* in two major respects:

- a. Strategic nuclear deference is based solely on the Polaris/Poseidon force; Minuteman, bombers, and CONUS active defenses are phased out;
- b. Theater nuclear forces are phased out of the inventory.

Mr. KAUFMANN. Thank you, sir.
Chairman PROXMIER. Mr. Kaysen?

**STATEMENT OF CARL KAYSEN, DIRECTOR, INSTITUTE FOR
ADVANCED STUDIES, PRINCETON UNIVERSITY**

Mr. KAYSEN. Mr. Chairman and members of the committee, let me begin by registering admiration for the task that the committee has set for itself. I think it is extremely important that there be wide-spread discussion of the assumption on which the military budget is

based, and the logic which moves from assumptions to dollar conclusions, I think the Congress must be involved in this process and, in turn, must involve the public. There is no question in my mind that economic policy cannot be fully and deeply considered if this set of choices is left out of the discussion and viewed as above criticism. Thus, in my judgment as a citizen and as a professional economist, it is more appropriate for the Joint Economic Committee to look into these matters.

I would like to add a personal word of appreciation to the chairman, who has been very courteous about my appearance here in somewhat limited time circumstances, and a special word of appreciation for the format. I am glad to find myself in good company and among friends. And I think the very format of this discussion and what Bill Kaufmann, Mal Hoag and I have written and talked about before on this subject shows, if it shows nothing else, that this is a subject which is susceptible of reasoned discussion and analysis. We don't agree on our conclusions necessarily, but we do agree that it is a subject we can talk about, and that we will learn from talking about it.

I am here today to present a very brief summary of the material more elaborately stated in my essay, "Military Strategy, Military Forces, and Arms Control," which was published in *Agenda for the Nation*, a volume edited by Kermit Gordon and published by the Brookings Institution in 1968. I have submitted a copy of that essay for the committee's record.

(Document referred to appears on pp. 183-218.)

In general, there are three methods to be followed in seeking to reduce military expenditures. Though they are not without interrelations, they are distinct enough to be capable of separate discussions for analytical purposes. The first method is to increase the efficiency of procurement and try to get the same effective quantities of military performance at less expenditure. This involves questions of specifications, contracting procedures, the supervision of contracts, the proper relations between the research, development, and procurement phases in the acquisition of complex weapons, and similar questions. The second method is more rigorous and careful scrutiny of what military forces are "needed."

And I may interject here that I put "needed" in quotation marks to indicate that there is no simple relation between tasks and needed forces. And I repeat, we need a more rigorous and careful scrutiny of what military forces are "needed" in relation to the missions assigned to the forces in our military and diplomatic commitments. The third is a reexamination of our military and diplomatic commitments with a view to reducing them. All three of these methods are important, but the paper I am submitting addresses itself entirely to the second and third.

In sum, the argument of the paper is summarized by the table on page 582 thereof which suggests that it was not unreasonable to seek within a period of 3 to 5 years to reduce the military budget to the order of \$50 billion in 1969 prices. And let me call your attention to the fact that Mr. Kaufmann's figures are 1972 prices, and perhaps he and Mr. Hoag would have some comments on what the order of difference is, 10

to 15 to 20 percent. The figures in my table are crude and are meant to indicate orders of magnitude; they are not precise and detailed estimates. If a critic says—and some critics have said—the United States cannot buy what you propose to buy in the package for \$50 billion in 1969 prices; it will cost \$55 or even \$60 billion; I would not feel inclined to dispute him. My figures were estimated on the basis of the budget figures presented to the Congress by the Secretary of Defense in his annual posture statements, without recourse to the detailed classified information which the Defense Department uses in making its own estimates.

My conclusions rest on three chief propositions. The first is that we get out of the Vietnam war and maintain no continuing ground force commitment in Asia. The second is that some kind of strategic arms agreement with the Soviet Union will permit us to reduce significantly our level of expenditures on strategic forces. The third is that we should reduce the size of our overseas deployment and general-purpose forces in reserve in the United States by using a more modest capability target than that on which our current force plans are based, the so-called two-and-a-half contingency sale.

These propositions rest in part on an analysis of what we can and cannot usefully do with our military forces and in part on policy choices which I believe we can and should make. The main substance of my Agenda paper is the presentation of this analysis and the delineation and defense of the recommended policy choices.

I will be glad to answer whatever questions arise out of this discussion on these propositions and the arguments I draw them from.

Thank you.

Chairman PROXMIRE. Thank you, sir.

(Mr. Kaysen's prepared statement and accompanying submission follow:)

PREPARED STATEMENT OF CARL KAYSEN

My name is Carl Kaysen. I am by profession an economist. I am now Director of the Institute for Advanced Study in Princeton, New Jersey. I have had long experience in the analysis of strategy and military budgets, including a term of service as Deputy Special Assistant to the President for National Security Affairs from 1961 to 1963. I am here today to present a brief summary of the material more elaborately stated in my essay, "Military Strategy, Military Forces, and Arms Control," which was published in Agenda for the Nation, a volume edited by Kermit Gordon and published by The Brookings Institution in 1968. I am submitting a copy of that essay for the Committee's record.

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MILITARY STRATEGY, MILITARY FORCES, AND ARMS CONTROL

BY CARL KAYSEN

[From: *Agenda for the Nation*, The Brookings Institution: Washington, D.C.]

The fundamental aim of American military policy since the end of the Second World War has been defensive: to prevent the advance of communist power led by the Soviet Union. From our promise of military and economic assistance to Greece and Turkey in early 1947, this aim has led us to steadily widening commitments and to deployments of American forces over most of the globe. Over the same period, revolutionary changes in military technology have drastically altered the old geographic parameters of warfare and led us—and the Soviet Union—to create vast new forces of entirely novel kinds.

Both the international political scene and the technology of warfare have been changing rapidly in the recent past; both can be expected to go on changing in the near future. Changes already experienced and those in prospect require a reexamination of the goals of our military policy and the purposes and nature of the forces and deployments related to them. It is the argument of this paper that the proper conclusion of such a reexamination is that our security interests and needs require great changes both in the underlying rationale of our military policy and in the force structures and deployments which are the concrete expressions of that rationale. The new political and technical realities point to the futility of a quest for security primarily through increased military strength and to the increasing importance of political factors and arms-control arrangements and agreements. Indeed, by giving weight to these factors in the next five years, we will have a better prospect of achieving higher levels of real security—that is, lower risks of harm to the United States and its vital interests, with armed forces and military budgets as much as a third lower than they are now—than we will have by continuing to follow the line of our past policy in a radically altered situation. In plain words, the course of arms limitation, restrictions in deployments, and arms control is not

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only cheaper than that of continuing competition in arms and military confrontation; it is safer.

Our military strategy in the past has been shaped by three chief goals, all interrelated, but nonetheless of different importance. The first was to deter and defend against a direct attack on the United States. The second was to deter and defend against both a direct attack on Western Europe and the use of the threat of military force, including the threat of attack on the United States, as a weapon in the indirect conquest by political means of some or all of Western Europe. The third, and both later in time and lesser in importance, was to oppose expansion of communist power in any part of the world, especially when it took the form of a takeover by communists, with overt or covert assistance from the Soviet Union, of the government of a previously noncommunist state. This strategy had its origins in the events in Europe in the first years after the end of the war; by the end of the Korean war in 1952, it had settled into a hard mold from which it is only just now shaking loose. It has been given formal expression in a series of multilateral and bilateral treaties binding the United States in mutual defense pacts with nearly fifty nations, several of which are involved in more than one treaty, beginning with the Rio pact of 1947, covering nineteen Latin-American powers, and including the North Atlantic Treaty Organization (NATO), with fifteen members (1949), the Southeast Asia Treaty Organization (SEATO), with eight members and two protocol states (1954), the Central Treaty Organization (CENTO), with four members and U.S. "association" (1955), and bilateral defense treaties with Japan, Taiwan, and South Korea.

Each of the three major goals can be associated with a corresponding aspect of the level, structure, and deployment of U.S. forces, though this correspondence is somewhat artificial, since the various elements of our forces are interrelated and serve more than one goal. The first has led to the creation and maintenance of a long-range strategic striking force, equipped with thermonuclear weapons and capable of world-wide action. We have also created defensive forces against enemy strategic attack, but our main reliance has been on an offensive force. The size and composition of our offensive force has been shaped by the concept of U.S. strategic superiority. In its crudest form this has meant a larger and more effective force than that of the Soviet Union, which even now remains the only other nation with significant long-range striking power. The subtler meanings of the notion of strategic superiority will be explored below. The second goal is reflected mainly in the sizable long-run deployment of U.S.

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forces in Europe under the North Atlantic Treaty Organization, though the strategic forces make a vital contribution to it as well. These forces constitute a major military establishment in all arms: the equivalent of nearly 5 divisions of combat ground forces, several battalions of medium- and short-range missiles with nuclear warheads plus support troops, an air force of some 900 tactical aircraft and 85,000 men, equipped with a very large number of tactical nuclear weapons, and the Sixth Fleet in the Mediterranean, a major fleet (built around two carrier task forces) of some 50 ships, 200 aircraft, and 25,000 men. In addition, the backup forces for NATO in the United States amount to nearly 4 army divisions trained and equipped for European service, a sizable portion of the 475 ships, 2,500 planes, and 240,000 men of the Atlantic Fleet, and some part of the tactical air strength in the United States. Indeed, the combined U.S. forces in Europe form a more powerful military establishment than that of any nation save the Soviet Union.

Reflections of the third goal in our military deployments are more diffuse, more variable in time, and thus are less easy to specify precisely. The very size of the forces we maintain, other than strategic offensive and defensive forces and those committed to NATO, is perhaps the most important expression of this third goal. So are such specific deployments as two divisions and some air force units in Korea and a marine division scattered throughout the Pacific; the size and far westward patrol range of the Seventh Fleet in the Pacific; the existence and mission of Southern Command in Panama; the restructuring of the U.S. strategic reserve under Strike Command, in order to create a capability for rapid response with conventional ground and tactical air forces on minimum notice any place in the world; and the world-wide network of military assistance agreements and military training missions both within and without the framework of mutual defense treaties. The great spread of U.S. air bases, communication facilities, and related installations around the world in part reflect this same purpose, although they also serve as support for forces deployed in Europe and the United States. Finally, of course, the most recent powerful and pointed expression of this third goal has been our commitment of more than half a million American troops to a war in South Vietnam to halt and reverse the partly political, partly military, process by which the joint forces of the guerrillas in South Vietnam and the communist government of North Vietnam had begun to take over the South, and to discourage further communist penetration in Southeast Asia.

The International Political Scene

The greatest changes in the international political scene have been those affecting the relations between the United States and the Soviet Union. The Soviet Union is no longer the unchallenged leader of a unified bloc of thirteen communist governments—all but Cuba forming a contiguous mass from Eastern Europe to East and Southeast Asia. Nor is it still the political headquarters of a single world-wide communist movement controlling a network of legal and illegal communist parties and exercising significant political influence in many important countries in both the third world and the U.S. alliance system. The political and ideological split between the Soviet Union and China has not simply bifurcated the communist world; it has shattered it into fragments. And even the largest and most powerful fragment in both economic and military terms—the Warsaw Pact grouping (minus Albania)—though still led by the Soviet Union, no longer shows the unity of purpose and unquestioning submission to Soviet leadership it once did. On the other side, of course, our own dominant role within the American alliance system has also diminished, though it never equaled that of the Soviet Union in terms of command. The result is that the edge of the Soviet-American confrontation is much less sharp, as allies on both sides take a political stance between those of the two superpowers.

On the military side of the confrontation, there has been an increasing mutual recognition by both superpowers of the sharp limitations on their use of military forces directed at each other to achieve or advance political goals. The succession of crises involving some greater or lesser degree of Soviet-American confrontation, Berlin in 1961, Cuba in 1962, the Middle East in 1967, has underlined the reality and strength of the political constraints on the direct use of military force. These constraints are essentially the product of the nuclear age; their working will be examined in some detail in the discussion of strategic forces below.

Profound as these changes are, they have by no means removed the sources of conflict between the United States and the Soviet Union. Mutual ideological hostility still exists on both sides, but it is especially important in the Soviet Union, where it has a much more significant role in the internal political process than in the United States. Direct conflict of political interests over the German settlement in all its ramifications re-

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mains, although it, too, has become less sharp. Neither side publicly accepts the legitimacy of the role and activities of the other in the underdeveloped world, but the tendency, respectively, to interpret every action in terms of communist aggression and conspiracy or capitalist encirclement and neo-imperialism has diminished somewhat in intensity, again perhaps more here than there. Many of these conflicts, moreover, are becoming those traditional among great powers and losing their intense flavor of religious war.

These changes are not only the result of mutual appreciation of the political implications of the facts of military technology; they also reflect deeper currents within both the United States and the Soviet Union, currents that are flowing with equal or perhaps greater strength within the other NATO and Warsaw Pact countries as well. In any modern industrialized nation in which the government is responsive to popular will—whether through the mechanisms of democracy or through other less sure and sensitive means—the primary pressures of popular opinion will ordinarily be focused on internal problems of economic and social welfare. Extraordinary events and circumstances are required to sustain wide public interest in foreign policy. Even the governments of the Soviet Union and its Warsaw Pact allies, far as they are from democracy, are gradually becoming subject to and responsive to popular pressures and demands, and thus the same political forces that give primacy to internal problems in the West are operating to some degree on them. Expensive and risky foreign and military policies demand political justification in popular terms, a demand that becomes increasingly difficult to meet, even on the Soviet side.

These trends are both deep and slow-acting; it cannot be asserted with any confidence that they will not be reversed in the shorter or longer term. Between the early and final drafts of this paper, Soviet and other Warsaw Pact forces invaded Czechoslovakia to reverse the Czechs' unacceptably rapid program of liberalization in internal politics and economics. It is difficult to assess the full results of this venture now; yet several preliminary conclusions can be set down. First, the operation was defensive in character and provides no basis for inferring an increase in Soviet readiness to act against NATO or the United States directly. Second, the slowness with which the Russians are pressing their demands on the Czechs and the restraint they are showing in the face of stubborn resistance from Czech leaders and people—in contrast to their behavior in Hungary in 1956—appear to indicate some Soviet reservations on the political effectiveness

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of military force. Third, disunity within the Warsaw alliance and between the Soviet-oriented communist parties and the Soviet Union has increased sharply. Thus, on the basis of present evidence (late 1968), it seems no more correct to view these events as a reversal in the trends sketched above than as a confirmation of them; yet they could presage such a reversal.

On the United States side, a hardening of our own policy toward the Soviet Union and the communist world, shown by, say, an attempt to achieve "military victory" in South Vietnam and to make concrete in terms of military deployments the notion of maintaining U.S. "military superiority," might also reverse these trends. The political future is unpredictable; but the choice of policy by the United States is a major independent variable in the system. If we ourselves choose to deemphasize military means in foreign policy, we can hold back further increases in our military forces and in some cases (which will be detailed below) reduce them unilaterally. We can actively seek arrangements and agreements, both bilaterally with the Soviet Union and multilaterally, that will permit still further reductions in military forces on both sides. Choice of such a course can make a major contribution to a general movement in the preferred direction of more security. Though this is obviously not a risk-free course, it will be argued below that it is in fact less risky than its alternatives.

In pursuing this path, we should not expect that the Soviet Union will quickly and simply forego all efforts to project its power in diplomatic, economic, and military terms into the noncommunist parts of the world. No more can we expect that it will abandon its determination to maintain the borders of the present communist world or discontinue its search for whatever degree of unity under its own leadership over whatever part of it that appears feasible. Quite the contrary, we should anticipate continuing evidences for some time of Soviet efforts at playing the role of world power: further deployments of Soviet ships outside the waters adjacent to its territory, such as have recently been observed in the Mediterranean; wider patrols of Soviet missile-launching submarines; continued arms shipments on credit terms and dispatches of military training missions to countries of the third world. Many of these actions can be seen as responses to earlier similar ones on our side. In none of these areas would an increase in Soviet activity reach the level of our own for some time, even if that had already begun to decline. What can be anticipated is that, first, those forces which have increasingly limited the political effectiveness of our own activities in these areas will operate in the same way on the Soviet efforts,

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and second, the Soviet leadership, which—for all its ideological commitments—appears to be a group of rational men capable of attending to the facts of experience, will learn from this experience, however slowly, even as we have ourselves.

The relations of East and West in Europe have displayed the same tendencies toward softening, perhaps to an even greater degree than bilateral Soviet-American relations. Two points have been central in this change. The first is the increasingly low probability assigned by European governments on both sides of the dividing line through Germany to the prospect of a massive westward military movement by the Soviet Union and its Warsaw Pact allies. Even the understandably nervous and dissatisfied government of the Federal Republic, with the strongest cause to be discontented with the European status quo, does not act—in terms of military budgets and force levels—as if it gave high priority to the Soviet military threat. The second is the decline in the belief in “negotiating from strength” in Europe. This change, which has come about fairly gradually over the last decade, is of fundamental importance. Some of the NATO partners, especially the United Kingdom, never believed that the pressure of Western military power could bring about a new settlement that would reunify Germany; some of them, including the Scandinavian countries and perhaps France, were content with the status quo. But Germany and the United States, which both desire a change in the status quo, have come slowly to recognize that change can come safely only through political means and that change is least likely when the two alliance systems confront each other as if at the brink of war. This change in point of view is the product of a number of factors. First is the great success of U.S. and NATO policies over the two postwar decades: the nations of Western Europe are prosperous and confident; despite a variety of internal troubles, they feel more successful and secure than they could possibly have expected in the first years after the end of the Second World War. On the other side, the communist regimes of Eastern Europe are more disunited and more torn by internal pressures than the most confident observer would have predicted a decade ago. The communist parties of Western Europe have become increasingly cautious as they attempt to survive and retain political relevance in an atmosphere of economic growth and even some increase in economic equality and social mobility. All these changes have robbed communism of the dynamism it appeared to possess in the first decade after the war and increased the confidence of the Western European nations in themselves and in their capacity to deal with the Soviet

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Union and its allies in political terms. Another consequence of the success of our policies, of course, is the increasing assertiveness of European governments and their decreased willingness to accept American leadership unquestioningly.

None of this has changed the vital U.S. interest in Western Europe or the disproportion between the present military power of the Soviet Union and its allies and that of the Western European nations apart from the United States. But it has changed the immediacy and character of the military element in American-European relations in a way that is highly relevant for our military policies.

The Chinese-Soviet split and the expansion of the American commitment to South Vietnam to the level of a major ground war have highlighted the position of China in U.S. security policy. Old feelings and anxieties arising out of the "loss" of China in 1949 have been revived, and a variety of semiofficial pronouncements in recent years interpreting our role in the war in Vietnam as a necessary step in the containment of the aggressive, expansionist foreign policy of the People's Republic has reinforced these sentiments. This essay is written on the assumption that in the near future the war in Vietnam will be on the road to settlement. The details of such a settlement are impossible to predict with any confidence but will probably not include any close continuing military relations between South Vietnam and the United States. It is from this assumption that the international relations and security interests of the United States in South and East Asia will be discussed. A major feature of the Asian scene will continue to be the presence and voice of Communist China, by far the largest power in the area or the world in terms of population, located centrally and thus bordering on a great number of other states, the strongest militarily of all states in the region and the only one possessing even a few nuclear weapons. Yet, despite its central position and its military superiority over its neighbors, China, during the near future, will remain a basically weak nation, inferior in economic potential to Japan and in no way comparable with the two superpowers. China will undoubtedly continue to build up her nuclear forces and develop a modest missile capability at a pace determined to some extent by internal political events. But at the most anxious projection, these forces will not in the near future reach a level in terms of size and survivability that will permit a Chinese government however faintly rational to run even a small risk of inviting attack by the strategic forces of the United States or the Soviet Union. For this period, both will maintain a credible first-strike capacity against China.

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The limitations of Chinese military strength go much farther than this: large as her army is, she does not have the capacity to project her power much beyond her own territory and the areas immediately adjacent to it. With a tiny navy, made up mostly of coastal defense vessels and an air arm whose major element is a defensive fighter force, China's military power is important chiefly in a defensive or internal context or very close to its borders. Chinese foreign policy since the effective end of the Soviet alliance reflects no different estimate of her own strength; she has been as cautious in deed as she has been violent in exhortation and denunciation.

Even after the settlement of the war in Vietnam, major points of conflict between China and the United States will remain and are unlikely to be settled soon. Chief among them is the issue of Taiwan, or what China views as the occupation of Chinese territory by a puppet government managed and supported by the United States. Even if we can stop pretending that Taiwan is China, move to a "two Chinas" policy, or even beyond that to a "China plus independent Taiwan" policy, and try simply to avoid for as long as possible facing the problem of China's right to a UN Security Council seat, it is unlikely that China will change its position. But it is equally or more unlikely that China will try to reoccupy Taiwan by force, as long as elements of U.S. forces are deployed in and near the Formosa Strait.

Further, China will certainly continue to exercise propaganda and political pressure against the noncommunist states of Asia and even occasional military pressure against those with vulnerable borders such as India and Burma. Her influence on the large overseas Chinese communities in Singapore, Malaysia, Thailand, and the Philippines will continue to provide a means of creating political unrest in all those countries; she will continue to hold Hong Kong under threat.

Nor are the prospects good for untroubled peace in Asia, aside from the activities of the Chinese People's Republic. North Korea will probably continue border harassment and infiltration against South Korea. North Vietnam will continue to seek to expand its influence in South Vietnam and Laos, probably successfully, and in Thailand and perhaps Cambodia, with much less certain prospects of success. Peace between India and Pakistan will continue to be uneasy; so may it be among the Philippines, Indonesia, and Malaysia.

Despite these alarms and excursions, there are only two fundamental questions for the United States. The first is whether such conflicts, at the scale we have depicted, involve the security interests of the United States

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to an extent that they must be settled favorably to us at whatever cost. The second is, short of such a broad commitment, what, if anything, can we do about controlling or preventing them by military means. Our answer to the first question is no; and accordingly, the second can be answered in the course of considering future military deployments in the western Pacific and Asia. There are, of course, some contingencies in Asia that we would and should view as threats to vital U.S. interests. The most important of these are a direct attack on Japan and a massive invasion of India. Both seem impossible for the Chinese to undertake alone and highly unlikely as joint Soviet-Chinese enterprises. The continued independence of South Korea and Taiwan, unless they should choose otherwise, is also vital in view of both our past commitments and our success, after long and expensive efforts, in building them up into viable, self-supporting states. But here again, neither the repetition by North Korea of the 1950 invasion, this time without Soviet or probably even Chinese help, nor the invasion by China of Taiwan in the face of the Seventh Fleet seems more than a remotely possible contingency.

In the rest of the world, only Latin America shows a reasonable prospect of relative peace and this only in terms of international wars. Coups and revolutions will probably be as frequent in the next eight years as they have been in the past eight, and there is no guarantee that they will not be more violent. Africa will probably continue to display coups, civil wars, and guerrilla struggles against the white powers of the southern tip. It is not unlikely that some of these will erupt into international wars. But here and also in Latin America, we must again pose the double question: Are our interests sufficiently involved so that we must insure by whatever means an outcome that we favor in such struggles? Short of that, what can we accomplish by what kind of military force?

Only in the Middle East are the prospects of war so high, and the degree of American commitment clearly so great, as to raise the prospect of U.S. military intervention, if all else failed and the Arab countries were really about to overrun Israel. Perhaps, by the end of the four- to eight-year period we have in prospect, military struggles between black majorities and white minorities in southern Africa may arouse the profound and widespread emotions among the American public that the defense of Israel now does. But, with these possible exceptions, the general answer to the first of our two key questions appears to be in the negative for the rest of the third world.

This discussion of contingencies in the rest of the world should not be

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read as arguing that only Europe matters. It does underline the point that, aside from the remote possibility of an attack on Japan, no *single* contingency in any other area is of the same order of importance. Further, it emphasizes the limitations in many cases on U.S. military force in preventing developments that we clearly view as undesirable. Thus, to take a sharp example, suppose Brazil were "going communist" as a result of internal strife and the appearance of a left-wing faction in the army as well as among the populace. American military intervention on a large scale might be able to prevent the particular group from succeeding at that time, but only at very large costs in terms of our longer-run relations in all of Latin America and with considerable likelihood that the government we helped would prove unstable.

In sum, if we compare the likely prospects in the next presidential term of, say, eight years with the experience of the past eight years, we see a significant change. It is not, alas, that the prospects for disorder on the international scene in general will be fewer and for world-wide peace greater. Rather it is that the confrontation between the United States and the Soviet Union will be less salient in both international and internal politics for the great powers and, accordingly, that there will probably be less U.S. involvement in violence.

Strategic Forces

The changes in the world political picture that have been sketched in the preceding pages affect our whole military posture, since they alter its underlying political rationale. Also vitally important are those changes in military technology, current and prospective, that affect primarily the capabilities of the strategic forces of the United States and the Soviet Union, both offensive and defensive. These changes call sharply into question the concept of "strategic superiority," which has long had wide currency, if not official standing, as the basis of our military policy, and make more delicate and difficult for both sides the task of maintaining an effective deterrent balance.

Over the past decade the United States and the Soviet Union have each, more or less, become increasingly aware that the chief utility of its strategic forces was to prevent its adversary from using his forces. Each began to realize that any attack would be met by a counterblow so devastating as to convert a decision to attack into a suicide pact. And so the

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strategic equilibrium commonly termed "mutual deterrence" was recognized.

For our (or the Soviet Union's) strategic forces to provide effective deterrence, they must be in such numbers, of such nature, and so deployed as to be capable of delivering the required counterattack after the other side has struck; thus effective deterrence is measured by the usable strength of the survivable second-strike force. We were perhaps earlier than the Soviet Union in recognizing this, but we were far from perceiving it from the first. Once we recognized the need, we sought survivable forces in different ways as technological possibilities changed over the period. Increase in the size of the force, geographical dispersal to increase the number of targets presented by a given force, active defense, hardening to survive attack, warning and movement capability to take advantage of warning, all played a part in the quest for a secure second-strike force. Equally essential, if surviving forces are to be usable, are means for ensuring the survival of a complex network of reporting and communication facilities, command organization, and commanders, all of which occasion their own technical and organizational problems. At the present time, with missiles having displaced aircraft as the most important component of a second-strike force for both sides, hardening, combined with concealment and mobility for the sea-based portion of a force, provides the main means of ensuring survivability. The Soviet Union, with smaller and less effective sea-based forces, depends more heavily on hardening.

Only the United States and the Soviet Union have built up large strategic forces with second-strike capabilities; in comparison, the forces of the small nuclear powers are insignificant. The United States and the Soviet Union can be expected to retain their unique position for some years to come: no other nation seems both willing and able to commit resources on the required scale. This, and the more general disproportion between the conventional military power of the two superpowers and that of other nations or groups of nations, leads us to concentrate the discussion of strategic forces on the bilateral relations of the two. This neglects the small nuclear forces of the three other countries now possessing them, France, Britain, and China, and the possibility that they may be used in ways that will trigger great power conflict. If the number of nuclear powers should grow, this possibility will clearly become more important and directly relevant to the stability of the relations of the two great powers. For the present and the near future, however, we can pass them over without damage to our argument.

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Strong and survivable long-range striking forces provide each superpower with something more in relation to the other than deterrence against direct nuclear attack, though the precise specification of the extra effect is difficult. First, they provide a substantial incentive for each nation to refrain from initiating any military action against the other, lest the conditions under which rational calculation can be expected to dominate decision and action disappear in one or both. This incentive is stronger the larger the forces and interests involved and thus becomes a kind of built-in brake on the occurrence of military incidents in situations where the military forces of the superpowers face each other directly or could readily do so in their world-wide movements. By extension, the same incentive operates with respect to political confrontations that might in turn lead to military action, but more weakly the more remote the military steps appear to be in the chain of potential actions and reactions. Together these effects add up to a kind of indirect or second-order deterrence, which could tend to stabilize the behavior of the two superpowers in relation to each other over a wide range of actions and prevent unilateral attempts by either to change the status quo forcibly or suddenly.

The history of the last two decades, however, makes the strength, steadiness, and symmetry with which these incentives might operate questionable and emphasizes their relation to broader military and political contexts. In the earlier part of the period, the Soviet Union seems to have acted at a higher margin of risk than the United States; more recently, the reverse appears to be true. These changes are not the simple consequence of shifts in the balance of strategic forces; on the contrary, if there has been a shift, it has probably been a steady movement against the United States over most of this period.

In analyzing the concept of effective deterrence and trying to understand the relation of forces on which it depends, it is conventional and useful to detail a spectrum of possible strategic purposes and the striking forces appropriate to them, stretching from what might be termed a credible first-strike at one end to a minimum deterrent at the other. A first-strike force would be one whose size, reliability, accuracy, control arrangements, and so on, were such, in relation to the adversary's forces, as to make possible an attack that would, with a high degree of assurance, destroy essentially all of the adversary's forces and still leave the attacker a substantial unspent reserve force. In this context, "essentially all" of the adversary's forces has the sense that whatever residual might escape destruction would not be able to inflict major damage on the attacker or prevent

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his reserve force from being used to a very substantial extent. For a first strike to be further characterized as "credible," the relation of forces described above would have to be clearly perceived by both adversaries, and the "high degree" of assurance involved might have to be set at 99 percent or more. In such circumstances, it is just conceivable that the superior adversary could use this power for what has been termed "compellance," as opposed to deterrence: the threat of a strike used as a means of compelling specified behavior by the adversary.

At the other end of the spectrum, a minimum deterrent force would be one which would provide high assurance of the survival of an effective, usable force (for a second strike) large enough to inflict unacceptable damage on the adversary, defined in terms of some level of expected casualties, urban and industrial destruction, and so on.

Since 1961, our strategic forces have been programmed in terms of deterrence-plus. We have never sought a first-strike capacity, and indeed, in his first budget message, Secretary of Defense Robert S. McNamara denied both the possibility and desirability of attaining one: the Soviet striking capacity was, and would be, maintained at a high enough level to make a U.S. first strike irrational. But in the first two full budgets of the Kennedy administration—which laid down guidelines governing the size of the strategic striking forces that are still in effect today—the programmed missile and long-range bomber forces were larger in relation to projected Soviet forces than would have been required for minimum deterrence alone, even allowing for a generous margin of uncertainty on the growth of Soviet forces, their effectiveness, and the post-attack performance of our own programmed forces. The margin over deterrence was justified in terms of the idea of "damage limitation" should deterrence fail—a contingency that could not be ignored. Were warning of preparations for a Soviet strike or the actual launching of one received in sufficient time, U.S. missiles could be launched against Soviet missile sites and airfields, thus limiting to some extent, depending on warning time, the damage that the Soviet strike would inflict. A large enough effort at "damage limitation," of course, shades off into a first-strike posture; a small enough one becomes indistinguishable from the safety margin for deterrence.

The decisions of 1961 and 1962 called for the buildup by 1965 of a U.S. strategic force of nearly 1,800 missiles capable of reaching Soviet targets; somewhat more than a third were to be submarine-launched. In addition, some 600 long-range bombers would be maintained. This was projected

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against an expected Soviet force of fewer than a third as many missiles and a quarter as many bombers capable of reaching the United States. Further, the Soviets were expected to possess an equal number of shorter-range missiles and a much larger number of medium bombers, which could be used against European targets and, possibly, against the United States as well. Unknown, and unknowable, at least for some time to come, is whether the Soviet Union's original force goals in 1961-62 were as modest as our estimates of them at the time—or even more so—and whether their rapid recent buildup, discussed immediately below, was a response to the tremendous acceleration in growth of our long-range striking forces brought about by the Kennedy administration. In any event, until 1967 it was possible for the administration to deny any wider aim for its strategic posture than deterrence, to argue the futility of seeking to achieve a first-strike force, and yet to avoid the sharp edge of the question whether we were maintaining “strategic superiority” over the Soviet Union, as that term is used in congressional and public discussions. Recent changes in Soviet deployments have given a new bite to this question; anticipatory changes of our own have raised an even broader question of how stable our deterrent posture will be in the years ahead.

The last two years have shown significant changes in the Soviet strategic forces. The number of their intercontinental and submarine-launched ballistic missiles has grown rapidly. As of late 1967—as estimated by Secretary McNamara in his 1968 budget presentation—the number of land-based missiles had grown to 750, or nearly half our total, and most of the growth had taken place in the previous year. This indicates that the number might well continue to grow rapidly and by mid-1969 might be as large as ours. The total number of Soviet missiles targetable against both the United States and NATO countries is already nearly equal to the total number of U.S. missiles that can reach Soviet targets. Further, the Russians are currently building up their missile submarine fleet both qualitatively and quantitatively, so as to achieve—on the pattern of the United States—a substantial force protected from a first strike by concealment and mobility. In addition to these changes in their offensive forces, the Russians have been slowly deploying an antiballistic missile defense system around Moscow.

So far, we have not responded to these developments by planning an increase in the number of our missile launchers. Rather, we have concentrated on programs for upgrading our present forces by replacing existing missiles with new ones designed to use present launching platforms. The

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new missiles will be superior to the old in three respects. First, they will be significantly more accurate, which means that a smaller warhead can be used to achieve a particular level of destruction against a specified target, a fact which is significant for attacks against hard targets. Second, they will contain a variety of decoys and other penetration aids that will make more difficult the defensive task of an ABM system. Finally, and most significant, they will ultimately contain several independently aimed warheads within a single missile (MIRVs, or multiple independently targeted reentry vehicles). These, in turn, will make the task of the defensive ABM even more difficult. In addition, they raise a new, and as we shall see, somewhat frightening possibility of multiplying greatly the number of warheads that one or the other side can launch without changing the number of visible missile launchers.

We have also made the decision to deploy a "thin" ABM system, primarily as an area defense against light attacks—such as might be within the capacity of China in the near future—rather than as an effective defense against a major Soviet attack. However, the Senate debate on the appropriation for this system (June 1968) cast serious doubt on the continuance of this rationale as the governing one for deployment.

While the recent and projected changes in Soviet and American strategic forces have not altered the fundamental strategic situation from one of mutual deterrence, they may have set forces in motion which can undermine the stability of the relation in coming years. Within the Congress, pressures are already beginning to mount for action to offset the large increase in numbers of Soviet missiles, so as to maintain a margin of "strategic superiority" rather than accept "parity." As the planned deployment of the ABM system goes forward, congressional and public pressures to upgrade it can be expected to rise; demands will be made to add local defenses of missiles and cities to the present area-defense system. We will then face the dilemma of either publicly and explicitly accepting strategic parity with the Soviet Union or giving in to these pressures and beginning a new set of developments in our strategic forces, with consequences that are unpleasant to contemplate.

The core of the case for accepting parity has already been put above, but it bears repetition and a little elaboration. In essence, we cannot expect with any confidence to do more than achieve a secure second-strike capacity, no matter how hard we try. This capacity is not usefully measured by counting warheads or megatons or, above a particular level, expected casualties. Whether the result comes about with twice as many American

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as Soviet delivery vehicles—as has been the case in the past—or with roughly equal numbers, or even with an adverse ratio, does not change its basic nature. Further, any significant change in deployments by either major adversary requires a long period of time and announces itself either explicitly or through intelligence means in its early stages. The other side, therefore, has notice and time within which to respond. The present level of research, development, and production capacity for weapons on both sides is such that each has the power to respond to a change in the deployments of the other in a way that leaves it “satisfied” with its new position in relation to the adversary. Each, accordingly, feels it must anticipate such a response. And so the arms race goes on. The expected result of the process can be no more than a new balance at higher force levels, larger expenditures, and most likely, unthinkably higher levels of destruction in the event that the forces were ever used.

The other and even more troubling consequence of following the competitive path is that the stability of mutual deterrence becomes far less certain. First, a rapidly changing situation itself creates problems. Deterrence is at bottom a political and psychological concept. It rests on the perception and interpretation of the military situation by political decision makers; and it is as much open to influence by changes in their operating environment or the attitudes they bring to their perceptions as by changes in the hard technical facts. This inevitably marks it with a certain elusiveness. How great a capacity to wreak death and destruction on an adversary is enough? Can it be measured in absolute terms in millions of dead and acres of destruction or only in the fractions of one side’s population, industry, and urban area? If one side’s destructive capacity grows while the other’s remains constant at a high level, does this reduce the effectiveness of the latter’s deterrence? Questions such as these clearly have no unique, well-defined answers for all decision makers in all circumstances. What is clear is that constant or slowly changing force structures, whose technical performance characteristics are reasonably well understood—subject, of course, to the important fundamental limitation that no one has experienced their use in war—provide a much more stable basis for mutual reliance on and acceptance of deterrence than a rapidly moving process of qualitative and quantitative competition.

Second, the current technical developments in weaponry could introduce significantly new elements of uncertainty into the situation that in themselves diminish the stability of deterrence. Antiballistic missile defenses and multiple independently targeted warheads carried by a single

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missile both have this effect. At present, each adversary has a reasonably clear idea of the other's deployments, with enough detail to permit a confident estimate of the balance of forces. Once MIRVs become widespread, it will be much more difficult for each side to know how many warheads, as opposed to launchers, the other has. How great the uncertainty will be depends, of course, on the specific technical possibilities: two warheads per missile would create one situation; ten, quite another. Further, MIRVs increase the asymmetry between first and second strikes, moving us toward the instability inherent in a situation in which neither side has a survivable second-strike force. The mutual deployment of large ABM systems, too, will reduce each side's belief in the adequacy of its second-strike force and generate strong impulses to compensate for uncertainty by building still larger offensive forces.

The combination of ABMs and MIRVs opens up an even more alarming prospect. If both were reasonably effective, then each side could believe it had a first-strike capability: its MIRVs could be used to attack the adversary's fixed missile launchers and its ABM defenses to intercept weapons launched from the adversary's mobile systems. The deterrent stability permitted by our present technology of relatively invulnerable offensive forces and no defense would vanish.

These frightening possibilities still lie in the future. For the next several years, nothing that is currently happening or in prospect justifies anxiety for the continued effectiveness of the U.S. second-strike capability or its continued power to perform its primary function of deterring the Soviet Union from using its nuclear forces against us. None of the evidence on the Soviet buildup points beyond an effort to move close to a crude equality with us in numbers of offensive missiles, nor is there evidence of a widespread program of ABM deployment or of a Soviet MIRV program.

The rapidity of the recent buildup in Soviet forces tempts some to project that buildup into the future and to see it as a try for "strategic superiority." The absence of official announcements of force goals by the Soviet Union—such as the U.S. Secretary of Defense makes in his annual budget presentations—reinforces the temptation; and the demonstration of the illusory nature of such a goal seems an insufficient response. Yet our past experience with the projected "defense gap" of the early fifties and the "missile gap" of 1959–61 shows the dangers of such an interpretation. In both these cases we clearly overreacted. In the first, the result was our concentration on a large, expensive, and not very effective defense system against Soviet bombers that was soon to be obsolete since the Soviet

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Union was moving on to missiles. In the second, the scale of our reaction may have had the direct result of stimulating the current Soviet buildup. If our aim remains that of maintaining deterrence, we can clearly afford to wait for the event rather than begin now to respond to our projections of the future.

However, technical developments point to the coming of a time when mutual deterrence can no longer rest reliably on mutual watchfulness and forbearance without explicit arms-control agreements over the deployment of strategic forces. The decision (July 1968) of our own and the Soviet governments to initiate talks on a leveling-off in the deployment of strategic weapons indicates an acceptance of something like the line of argument given above by both governments. Yet it is clear that a freeze would present a host of difficult political and technical problems. First is the question of how much reliance we would be willing to place on unilateral—that is, intelligence—verification of Soviet deployments rather than inspection procedures established by agreement. Second, equally important and even more difficult to resolve, is the question of whether and to what extent we should seek control over technical improvements in existing warheads and vehicles and the research and development efforts leading thereto. No risk-free answer to these questions is likely to be found even in conceptual terms, much less in terms of negotiable arrangements between the two countries. Third, and probably most important and most difficult, is the political problem of gaining acceptance for a Soviet claim to some kind of “equality” in strategic forces, however defined. There is among us a widely shared popular feeling that our wealth, our power, and our virtue entitle us to be first and that any claim to equality by the morally and economically inferior Soviet Union is presumptuous if not dangerous. The new administration must conquer this sentiment, since it should be clear that we cannot expect to persuade the Soviet Union to accept a freeze under which its position is defined as “inferior.” This counsel is easier to give than to execute; but peace and security are widely and deeply desired, and strong presidential leadership can mobilize these desires in support of a relationship of “safe equality” by explaining that in matters of strategic systems we cannot be usefully and effectively “first.”

Difficult as these problems are, the alternative prospects arising from the uncontrolled forward thrust of technical change in weaponry that we have sketched above are much grimmer. The atmosphere of mutual distrust and fear produced by increased uncertainty will hardly promote the success of what will at best always be difficult negotiations for arms con-

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trol, and the balance resulting from any particular agreement will be much more difficult to calculate.

The present and near future offer a peculiarly favorable period for such a discussion. A freeze at something like next year's numbers of offensive missiles and an agreement on modest ABM deployments on each side, combined with a ban on new systems (specifically, MIRVs and new launching platforms or vehicles), would allow each side fixed, hardened land-based and mobile sea-based offensive systems and some sharply limited defensive deployments; yet it would prevent the introduction of MIRVs, the widespread deployment of new land- and sea-based systems that would be undertaken as a natural counter to MIRV, and the move to "thick" ABM systems of very high cost. The prevention of greatly increased deployments of mobile missiles is important because of the problems they would create for unilateral surveillance, or even for effective mutual inspection, and the consequent further destabilization of the strategic competition.

Another argument for pressing negotiations with the Soviet Union on the deployment of strategic weapons is the need to contain the further spread of nuclear weapons. Even the initiation of such negotiations would give an important stimulus to the completion of the nonproliferation treaty; success would make much more likely wide adherence to the treaty, especially by those nations which are capable of making nuclear weapons and which have criticized the one-sided character of the treaty's restraints. Failure to initiate discussions—especially if coincident with a visible acceleration of Soviet-American competition—would probably not only kill the treaty but stimulate more nations to "go nuclear," as they lost hope of great-power restraint. This, of course, would add a further destabilizer to the international scene.

Because of the technical complexities of the subject and its political sensitivity in the Congress, the military services, and large segments of the public, the new President and his Secretaries of State and Defense must place a very high priority on the task and give it a significant and continuing share of their personal attention if there is to be any prospect of a useful negotiation. It should be made the major arms-control effort and one of the major foreign policy initiatives of a new administration.

Negotiations are likely to prove long and difficult, even if they get underway immediately. There may be some virtue during their course—especially if they are not progressing—in exploring the possibilities of simpler measures of arms control, which could contribute to the domestic and

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international sense of forward motion in this area, as well as have some significance in themselves. Especially worth considering are a cutoff in the production of fissionable material, a complete test-ban treaty, a ban on placing nuclear weapons in the seabed, and a declaration against the first use of nuclear weapons, either in unconditional form or limited to use against nonnuclear powers. Each has its dilemma. For the first two, it is the difficulties of negotiating meaningful inspection versus the magnitude of risks entailed in reliance on unilateral verification. For the second two, it is the limitation on deployment versus the possible weakening of deterrence against conventional attacks in force and the consequent decline in our allies' confidence in our security guarantees, especially that of West Germany and South Korea. A thorough discussion of these problems would go beyond the purpose of this paper. It is sufficient to say that the values that may be gained by arms control are increasing and of enough importance to justify a reexamination of the balance of advantages and risks in each case.

NATO Forces

Next to our strategic forces, our commitment to NATO is our most important military commitment. It, too, has been affected by a changing political context and, though to a much less important extent, by changes in military technology.

Currently, NATO forces on the central front are roughly in balance with the opposing Warsaw Pact forces west of the Soviet frontier, measured in terms of capacity to fight a conventional ground war; indeed, the NATO forces immediately available probably have some qualitative superiority on the central front, especially in terms of aircraft. This has now been the case for several years. Further, the total forces and total military budgets of the NATO powers (excluding U.S. forces in Vietnam and the expenditures in support of them) are greater than those of the Warsaw Pact nations. Table 1 gives a selection of the relevant statistics.

In the critical central region, the German component of NATO's ground forces is the largest, followed by that of the United States. In tactical airpower, the United States has the largest force, with Italy and Germany next. In addition, of course, the U.S. forces in NATO are equipped with a vast array of tactical nuclear weapons, currently some 7,000 in num-

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Item	NATO ^a	Warsaw Pact ^b
I. Armed forces manpower		
Total men under arms	6,300,000	About 4,300,000
Total army personnel	3,600,000	About 2,900,000
Troops in combat-available divisions		
a. In the central region on M-day	680,000	About 620,000
b. In all European regions on M-day	900,000	About 960,000
II. Aircraft		
Inventory value of tactical combat aircraft at nominal cost	\$27,000,000,000	About \$16,000,000,000
Tactical aircraft inventory	11,000	9,000
III. Total defense budget	\$75,000,000,000	About \$50,000,000,000

Source: Department of Defense, Office of Assistant Secretary for Systems Analysis. Data are given in round numbers and U.S. dollars.

M-day. Mobilization day.

a. Does not include U.S. forces and costs in Vietnam.

b. For this purpose the pact comprises USSR, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, and Rumania.

ber. The Soviet forces also have a sizable nuclear component at the tactical level, but its precise magnitude is not known. Together, there are clearly enough nuclear explosives deployed in tactical formations to destroy most of Europe, without the assistance of strategic forces on either side.

The balance represented by the figures in Table 1 has not been significantly changed by the Soviet invasion of Czechoslovakia. On the one hand, the Soviet Union called up some reserves and moved troops from western Russia into Czechoslovakia. On the other, the Czech forces can hardly be counted among the combat-available, and indeed, if an allowance is made for the minimum Soviet force required for occupation duties inside Czechoslovakia, the net change is probably negative. Further, the movement represented no particular surprise in military terms. Some two or three months was available for preparation, and NATO was well aware of Soviet moves during the period. Only the immediate political decision was a surprise.

If we consider not only the statistics of military deployment but also the less easily measurable but more important factors of political will, the advantages on the side of NATO in terms of its defensive purpose are even stronger. For all their disagreements and divisions, there is a clear will to self-defense among European members of NATO. By contrast it is

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difficult to conceive of enthusiastic Czech, Hungarian, and Polish participation in offensive operations directed westward across the frontiers of the Federal Republic of Germany. Of course, the same could be said of a corresponding move by the West; but it is the essence of a wise NATO policy to emphasize the treaty's defensive purpose and to present the Soviet Union with the alternatives of peace or the offensive.

The large NATO deployments reflect two different sets of politico-military concerns: the desire of the Germans for a "forward strategy," so that any attack will be met and, if possible, repulsed at the borders of the Federal Republic before the attackers can occupy any substantial part of its territory, and the anxieties of U.S. and British defense planners—especially the political chiefs of defense departments—about the consequences of the use of tactical nuclear weapons in Europe.

The first of these has been more or less constant since the Germans found their political voice in the alliance. The second, however, represents a more recent development and a turn away from a previous policy of relying on the heavy use of tactical nuclear weapons in Europe, which was initiated in the mid-fifties and, at the time, only grudgingly accepted by our allies. As we came to recognize that the game of tactical nuclear weapons was a two-sided one—and to calculate the consequences of their bilateral use and to contemplate the difficulties of drawing a line between their use in Europe and general strategic warfare—we tried, beginning in the sixties, to deemphasize nuclear weapons. We set an example for the alliance by building up conventional strength and urged the other members, especially the Germans, to follow it.

Over the same period, however, and indeed, beginning rather earlier, the politicians and people of Western Europe became less and less convinced of the likelihood of a massive Soviet attack. Parliaments became increasingly unwilling to vote increases in military budgets or to extend periods of military service. We have argued above that this perception of Soviet intent is correct and, accordingly, that current strategy must be evaluated in the light of it. To be sure, the need for deterrence remains; but the means will have to be changed. Three requirements must still be met: first, the American commitment embodied in the treaty; second, enough involvement of American troops on the central front to make it clear to the Soviet Union that the commitment will be honored and that no military action on any significant scale in Europe is possible without engaging the United States in war; third, a U.S. strategic striking force of a size and capacity that will continue to rule out the rational choice of a major war by the Soviet Union.

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In addition to helping deter a massive Soviet attack, no matter how unlikely, the U.S. troops in Germany have at least three other important functions. First is that of assisting in maintaining ground access to West Berlin and Western rule in West Berlin. The presence of properly deployed American forces in enough strength so that "incidents" on the Autobahn or at the Berlin boundaries can be met with a proportionate, but not an undue, response that is clearly American, provides a constant reminder to the Soviet Union of the dangers of attempting to change the situation of West Berlin by force. The Americans in West Berlin serve a corresponding function with respect to possible incursions by East German police or troops, the use of Soviet forces for political intimidation, and the like. These functions will remain vital until the political arrangements governing the relations of West Berlin, the Federal Republic, and the German Democratic Republic are clearly accepted by all of the parties. The second function of U.S. troops is that of maintaining a presence and a forward deployment sufficient to reassure the Germans in particular and Western Europe in general of our continued commitment to their defense. While this deployment is inseparably connected with the prime task of displaying our intentions to the Soviet Union, it, so to speak, plays to a different audience. Finally, U.S. troops in Germany assure other members of NATO that immediate management of the alliance's confrontation with the Soviet Union is not solely in the hands of the West Germans, and they provide the means of integrating German forces into the NATO command system. This is an important element in alliance solidarity, whose value even the German government accepts.

While all these functions are separable for analytical purposes, the demands they make for U.S. forces are by no means additive. The tasks of garrisoning West Berlin and providing a large enough mobile force to make clear that access to the city cannot be closed off without a major military confrontation require about two and one-half U.S. divisions: one-half in Berlin, one for deployment at the Autobahn approaches, and one as a general reserve. One more division would make possible enough forward deployment of U.S. troops in southern Germany to provide assurance to the Germans and the other NATO members of the seriousness of our commitment. We now have almost twice as large a ground combat force in Germany as this. General supporting forces and air forces are probably not so much larger than necessary, but units now manning a large variety of tactical nuclear weapons could usefully be viewed as even more redundant than the ground combat forces. Altogether, at a crude estimate, present U.S. forces in Europe may be on the order of 30 to 40 percent

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larger than would strictly be needed to meet the current strategic requirements of the alliance, if these requirements were defined in politically realistic terms.

If any sizable reduction were to be made in U.S. forces, it would almost certainly be paralleled by some reduction—though not necessarily a proportionate one—in force levels and budgets of the European members of NATO; the United States would no longer be able to exert its customary pressure in NATO for large budgets and stronger forces. Thus, any changes that a new administration may make must be considered in terms of their total effects on NATO's deployments.

Three kinds of arguments can be made for sizable reductions in U.S. forces in Europe. The first, and probably most persuasive, is a budgetary one. At present levels of defense and total federal expenditures, any deployment that is not strictly necessary is a luxury. In particular, our paying for extra insurance that the Europeans do not themselves believe necessary, as shown by their own expenditures, is most inappropriate. To realize significant budgetary savings, we must not only withdraw forces from Europe to the United States; they must also be scaled down in total numbers. The second argument stresses the desirability of shifting more responsibility to the now prosperous Europeans for their own defense; but this cannot be accomplished by exhortation, as we have discovered over some years. It can only be done by facing them with the facts of our decisions. The third argument concerns the significant possibilities for arms-control arrangements affecting Europe that force reductions might open up.

These arrangements are of two kinds. First is the parallel reduction of forces on the central front, matching U.S. troop reductions with withdrawal of Soviet forces stationed west of the Soviet borders, and reductions by other NATO members with those of the Eastern European countries. Second is the creation of a substantial denuclearized zone on both sides of the dividing line in Germany. Both of these are items which, in one shape or another, have long figured in Soviet arms-control proposals and propaganda and which we have steadfastly rejected. Our past attitude rested on both military and political grounds. Militarily, these changes appeared to undermine our forward strategy by removing from the central front both the troops and weapons on which it was based. Further, our removal of troops across the Atlantic could not be compared with a Soviet removal to just behind its own western borders, some 700 miles from the German dividing line. Politically, they were viewed as threatening the unity of the NATO alliance at two levels. Until fairly recently, discussing them would

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have appeared to be a sharp reversal of U.S. strategic doctrines; in a dangerous situation, such a reversal would have been alarming, especially to the Germans. On an ideological level, the negotiations required for such arrangements would have appeared to "equate" NATO and the Warsaw Pact or would have involved the recognition of East Germany.

Today the military grounds are no longer relevant to our current strategic concepts and the appraisal of the military balance which they embody. While the particular political objectives raised in the past are not now apposite, there are significant political problems that would be raised by the discussion of such proposals. They turn essentially on the role of the Federal Republic. It has always been difficult for Germans to accept their exclusion from Soviet-American discussions on matters that concern them so intimately. On the other hand, it would be difficult for them to negotiate in a forum which included the GDR as a legitimate party; indeed, it is difficult to see how negotiations of the requisite sort could be carried on if all the alliance members on both sides participated. This is not to say that a process of negotiation cannot be found but to emphasize the important role of the relations between the Federal Republic and the United States and the views of the Germans in any such process.

Further, there is the difficult problem of whether it is wise for the United States and NATO to move unilaterally on force reductions and redeployments of tactical nuclear weapons or whether changes should be restricted to those on which there are reciprocal undertakings by the Warsaw Pact nations. A case for some unilateral action exists: such action may provide an important or even a necessary initial impetus to the negotiating process, both for the Soviet Union and for the Europeans, who may then have a clearer idea of how much defense they need and want to pay for. Yet, if there are to be negotiations, we cannot simply give away our bargaining position, and too much unilateral change can make negotiation appear unnecessary to the Russians.

In the area of strategic nuclear forces, bilateral Soviet-American discussions are clearly appropriate, and the arms-control issues themselves are central to the discussions. In the area of European military deployments, arms-control problems are inevitably closely linked to the larger political issues of the German settlement; and the character and pace of the discussions depend heavily on views in the Federal Republic about how to regulate its relations with the GDR in particular and the Communist governments of Eastern Europe in general. Therefore, negotiations on the arms-control issues cannot be separated from broader political negotiations on Germany and a European settlement. These, in turn, will bear

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heavily on the political relations of the Federal Republic, the United States, and the other members of NATO.

Further, the interests of the other side in such arms-control negotiations are not clear. The westward deployment of Soviet troops has always been at least as much for their value as a political instrument in dealing with the bloc countries as for their role in confronting the forces of NATO. The invasion of Czechoslovakia underlines this point; and it is doubtful that the Soviet Union would want to discuss troop withdrawals or reductions now. Neither would the Western Europeans. Thus, unlike negotiations on the deployment of strategic weapons, arms-control discussions are probably an item for the future; nonetheless, they should not be dropped out of sight.

Other General Purpose Forces

The foregoing discussions of the strategic military balance and the needs of NATO dealt with situations in which the basic military and political considerations governing the possible use of force can be translated into the kind of quantitative terms necessary for decisions on force levels and budgets; in Europe there is a reasonably coherent and explicit rationale for policy, dominated neither by arbitrary political assumptions nor by forecasts of complex chains of future contingencies, though, to be sure, both elements cannot be entirely dispensed with. When we consider the military forces required for other purposes, however—namely, the general purpose forces for world-wide use, the strategic reserves, and the supporting forces for air-lift, sea-lift, general overhead, training, and reserve strength—we move into an area much more difficult to deal with in quantitative terms. However, we can make some progress by dividing the problem in two and considering, first, forces in East and South Asia and, second, U.S. strategic reserves and other supporting forces.

At the present, of course, our deployments in Asia are dominated by the war in Vietnam. We have some 550 thousand military personnel in South Vietnam, nearly 100 thousand more in Thailand, in Strategic Air Command (SAC) units engaged in bombing Vietnam, and naval personnel in Southeast Asian waters. This total is a little short of 20 percent of our total armed forces; it is also only a little short of the whole increase in forces—700 thousand men—added since the levels planned for 1964, the last year before we began the sharp increase in our military commitments in Vietnam.

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In addition, we still maintain two army divisions in South Korea, somewhat less than one-division elsewhere in the Pacific, some air force units in Japan, Okinawa, and the Philippines, and Seventh Fleet forces over the whole of the western Pacific.

On the assumption that the Vietnam war will be settled in a way that involves the total withdrawal of all American forces from the country—at some near future, but unspecified, time—what do the political prospects outlined above demand in the way of military commitments? One division in South Korea will certainly suffice for deterrence purposes; it may not even be necessary, since South Korean forces are adequate for defense against the possibility of another invasion. A second division, which we have considered withdrawing for some time, now functions essentially as a trade for South Korean troops in Vietnam. Considerable naval and air deployments will still be needed in the western Pacific to perform the general function of deterrence and low-key political support of neutral and allied countries against communist threats to use force and the particular function of protecting the independence of Taiwan. These functions, of course, involve not only the direct presence of the Seventh Fleet but also the less visible total power of the United States. Deterrence on this basis can be expected with high confidence to continue to be effective in protecting Japan, Taiwan, the Philippines, Australia, New Zealand, and Indonesia in view of the low capability of the military forces of the Asian communist nations for overseas or long-distance operations and their overall strategic weakness.

Given a fair degree of internal unity and economic growth, the same can be said about India. Its own military capabilities for defending its border with China are not negligible, and the logistical problems for the Chinese of mounting an invasion of India that reaches at all deeply into the plains beyond the Himalayan foothills are formidable. With sufficient political will, India can make a repetition of the frontier attack of October 1962 unattractive to China as long as American, and perhaps even Soviet, assistance seems to be in the offing. Without a stable political underpinning, of course, even a large U.S. force would be of little help. There is a case for extending the patrol range of some Seventh Fleet forces westward into the Indian Ocean—and even into the Bay of Bengal—simply to make the American military presence more visible. The basing problems this would present must be faced; and if the fleet's range cannot be extended without any forward land bases, or with bases involving no political problems, such as Australia, it is doubtful whether the gains would compensate for the problems created by the bases.

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The value of peripheral deterrent forces for Thailand, Burma, Malaysia, and Singapore, however, is less certain and depends very much on the course of internal political developments in those countries, as well as in China and North Vietnam. We have learned from Vietnam that even a very large and more immediately present force may be incapable of restoring a political balance once it has tipped far enough in favor of insurgent forces of the left, especially when they can draw on outside encouragement and support. A further lesson from Vietnam is that the American people do not believe we have a vital interest in trying to redress such a balance, regardless of the means. To say this is not at all to condemn the countries of the Southeast Asian peninsula to Chinese or North Vietnamese domination or even to communist governments. It is merely to recognize the limitations on the instruments available to the United States to affect political events in one way or another and, above all, the weakness of military force for this purpose.

The only area outside of Asia in which we have recognized a more than marginal possibility of U.S. military action on short notice is the Middle East. A renewal of the Arab-Israeli conflict might conceivably occur in circumstances that would generate a strong demand for U.S. military action to save Israel. But such action, to be effective, must be as much symbolic as forceful: it must warn the Arab states and their Soviet supporters to stop their military action immediately and return the conflict to the political and diplomatic level. As long as we maintain sizable naval forces in the Mediterranean, we will have that capability; it seems most unlikely that it will be necessary in advance to deploy forces to do more. Further, the likelihood of renewed major conflict in the Middle East appears to depend to a great extent on the general state of relations between the Soviet Union and the United States; if the whole perspective of this paper is correct, that likelihood will be diminishing rather than increasing.

Prior to the large troop commitments to Vietnam, the United States maintained about ten active divisions in the continental United States in addition to forces occupied in logistic, training, and administrative functions. Four-plus of these were specifically earmarked as NATO reinforcements; the rest formed a general strategic reserve. Within this general reserve force, of course, were tactical air and naval units. The size of this force was rationalized in terms of the need to meet, on short notice, the contingency of three military involvements at once: one in Europe, one in South or East Asia, both on a substantial scale, and a small third one elsewhere in the world.

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The foregoing discussion suggests that we should determine our force needs on the basis of more modest plans. These plans would include the capability of meeting simultaneously on short notice a large troop requirement in Europe and a small one elsewhere in the world. On top of the reductions of overseas commitments suggested above, amounting to between three and four divisions, these more modest contingency requirements might permit a total reduction of between five and six divisions in our active organized ground combat forces. To allow for a somewhat increased capability of reinforcing Europe, however, in view of the proposed reduction in forces deployed there, we should probably cut this figure for the total reduction to between four and five divisions, with corresponding, or perhaps proportionately somewhat smaller, internal reductions in naval and tactical air forces. This would leave a reserve in the United States of more than five divisions to back up NATO plus nearly four divisions for other simultaneous contingencies. In addition, of course, there would remain a mobilization base of ready reserve units, which at present stands at eight divisions, with between one and two months required to bring them to active status.

This level of forces would be more than adequate for whatever non-European contingencies might demand a show of force. But it would rule out emergency interventions in substantial force on short notice on a world-wide basis and, more particularly, in the two areas far from the deployments we have considered: sub-Saharan Africa and Latin America. For both these areas, arguments against intervention exactly parallel those made above with regard to Asia and are even more strongly applicable, since neither area is near a large or communist power. The reduction in our forces that has been suggested would in no way prevent us from making some contributions under the United Nations or other international organization to peacekeeping forces, should these be authorized.

Another element in our overseas deployment of forces that could usefully be greatly reduced is our world-wide structure of military bases. Many of these were originally sought from foreign governments to accommodate the relatively short-range B-47 bombers when these formed the major part of our strategic striking force. As the bombers grew obsolete, new functions were found for the bases: air transport, communications and intelligence installations, association with training missions. Changing technologies in communication and related fields and the increasing political costs associated with bases in countries outside Europe argue for a stringent reevaluation of their continuing utility.

Other Means of Keeping the Peace

If the United States were to reassess the balance of costs and advantages of military action outside Europe and to change deployments accordingly as sketched above, the potential for American involvement in violent conflicts would be automatically reduced. However, with some few exceptions, these changes would not work toward reducing the likelihood and level of violence along with the prospects of our own participation in it. The possibility that violent conflict will erupt in many places throughout the world is sufficiently high that means must be devised to reduce and control it. The control of violence is important only in part because of the risk that conflict may spread and may ultimately involve the superpowers as partisans of one side or another. Beyond that, international order and peace are important ends in themselves—though not always all-important ones—and the United States has some responsibility for attempting to shape its policies to serve these ends.

Unfortunately, useful specific prescriptions in this area are few indeed; but there are two possibilities worth mentioning. One is control of the international traffic in arms, especially the larger conventional weapons such as tanks, heavy artillery, combat aircraft, and combat ships. Only the United States, the Soviet Union, and a few of their allies, especially the United Kingdom, France, and Czechoslovakia, have so far had major roles as suppliers in this trade; the Chinese have played only a small part. Much of the supply, especially that provided by the United States and the Soviet Union, has been a by-product of military assistance agreements, alliances, and the like; little is sold in ordinary commercial transactions. The most promising way to control arms in most of the world outside the major alliances would be to regulate and limit this trade. At the outset two steps commend themselves: UN registration of transactions in specific categories of arms; and a large reduction on our own part of credit sales, military assistance programs, and the like. On balance and with some exceptions—in particular, NATO—the latter step would simply be in our own interest, irrespective of wider agreements. The record of return on similar investments by the Soviet Union is equally or more dismal; whether they have learned the lesson remains to be seen. The competitive element on both sides has been sufficiently strong to justify some hope that an initiative by the United States might have wider effects.

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The other measure, or rather set of measures, to control arms is the strengthening of the peacekeeping capacities of the United Nations. A variety of ways of doing this has been discussed at great length. All depend on the political agreement of the great powers; so far this has been lacking. But clearly, an important use of *détente* would be to renew these efforts, perhaps with a greater realization on both sides of their potential significance. On the assumption that such an agreement will eventually be reached, a particularly promising path to explore would be the earmarking by a large number of member nations of troops for UN duties and their training to this end. The Canadians and Scandinavians have pioneered along these lines, and they can offer much useful experience. Joint training exercises of such contingents from several nations could be a valuable step in the process of moving toward a usable international peacekeeping force.

A Summary of Force Sizes and Budgets

In summary, the proposals that have been sketched here in varying degrees of detail look to a substantial reduction in the role of military force in our foreign policy and consequent and corresponding reductions in the scale of our military establishment. In part, they are offered to encourage recognition (that will be mirrored in our force structure) of what have already become the facts of international politics. In part, particularly with respect to the control of strategic weapons and the deployments of both nuclear weapons and conventional forces in NATO, they are offered as possibilities for important U.S. initiatives in foreign policy, on the grounds that our policies should determine our weapons, and not vice versa.

Ideally, it would be desirable to measure our proposals in terms of their effects on future force structures and military budgets. It is extremely difficult to do this with any pretense to accuracy with publicly available figures, since they do not, as a matter of principle, show either the details of deployments, in terms of men and weapons, or the costs associated with particular elements and deployments of forces. Nonetheless, the figures presented in the unclassified part of the annual military posture statements made each year since 1961 by the Secretary of Defense to the relevant committees of the Congress provide a basis for some crude estimates.

First, the scattered estimates of changes for particular areas have been translated into an integrated figure for the total number of men in the armed forces. The starting point was the planned size of the force for fiscal year 1964 (before the dispatch of U.S. combat troops to South

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Vietnam), some 2.7 million men, which was used as a standard. That figure represented active organized combat forces of nineteen-plus divisions. The proposals in this paper have suggested reducing combat forces by between four and five divisions, or about 21 percent. If the whole force were reduced in this proportion, the resulting total would be 2.1 million men, or 1.4 million less than the previous level. However, it has also been suggested that other forces than combat troops should probably be reduced by a smaller proportion; the goal to be sought then becomes a total force level of some 2.2 to 2.4 million men.

For a corresponding estimate of the budget, two sets of figures have been used as bench marks: the proposed budget for fiscal year 1969, and the actual budget (in terms of total obligational authority) for fiscal year 1964, with costs classified by military programs. (Fiscal year 1964 was the last year before the budget began to reflect heavy commitments in Southeast Asia.) These and other data from the 1969 budget document are given in Table 2. It offers two alternate bases for estimating future outlays. The total of column 3, 1964 expenditures in 1969 prices, is \$62 billion; this could serve as a crude estimate of the post-Vietnam level of expenditures. The plausibility of this figure is reinforced by the major increases between 1964 and 1969 in those accounts strongly associated with the war in Southeast Asia. A somewhat more refined and much more speculative set of figures is set down in column 6, to show the result for some future year of putting the reductions and redeployments suggested above into effect. Four items show substantial reductions as compared with 1964: strategic forces, general purpose forces, supply and maintenance, and military assistance. The 40 percent reduction in the costs of strategic forces reflects the institution of a freeze and the beginning of force reductions via the phasing out of obsolete weapons. The costs of general purpose forces, and of supply and maintenance going chiefly to them, are reduced 20 percent, roughly in proportion to the reduction in total force levels suggested above. The military assistance program is reduced to a nominal level. The program for intelligence and communications reflects the assumption that smaller and less widely deployed forces will be needed; that in research and development, the sharp slow-down of efforts to create new strategic weapons systems. With a smaller active force, National Guard expenditures are left at 1969 levels to allow for higher levels of readiness and manpower. Finally, air/sea-lift is left unchanged, as mobility relative to smaller forces assumes more importance. The total is more than \$12 billion (in 1969 prices) less than the 1964 figure, a very considerable saving and the smallest defense budget in more than a decade.

582 *Agenda for the Nation*TABLE 2. *Recent and Proposed Military Budgets**In billions of dollars -*

Military program	TOA for fiscal year 1964	TOA for fiscal year 1964 ^a (1969 prices)	TOA for fiscal year 1969	Increase	
				of 1969 over 1964 (1969 prices)	Synthetic budget for 197x (1969 prices)
(1)	(2)	(3)	(4)	(5)	(6)
Strategic forces	9.3	11.1	9.6	-1.5	6.5 ^{b c}
General purpose forces	17.9	21.7	35.2	+13.5 ^d	17.4 ^b
Intelligence and communications	4.3	5.0	6.3	+1.3 ^d	4.5 ^e
Air/sea-lift	1.1	1.3	1.8	+0.5	1.3
National Guard, Reserves	1.9	2.5	3.0	+0.5 ^d	3.0
Research and development	5.0	6.2	5.1	-1.1	5.6 ^e
Supply and maintenance	4.1	4.9	7.3	+2.4 ^d	3.9 ^b
Training	5.5	6.8	9.8	+3.0 ^d	6.1 ^e
Administration	1.2	1.3	1.7	+0.4 ^d	1.2 ^e
Military assistance	1.3	1.3	2.7	+1.4 ^d	0.5 ^b
Total	51.6	62.1	82.5	+20.4	50.0

TOA. Total obligational authority.

a. Derived from column 2 by assuming each account experienced the same degree of price increase. Total taken from the "Statement of Secretary of Defense Robert S. McNamara before the Senate Armed Forces Committee on the Fiscal Year 1969-73 Defense Program and 1969 Budget," Table 1 ("Financial Summary"), p. 214.

b. Large reduction from 1964 level (in 1969 prices).

c. Especially large reduction to take account of fact that fiscal year 1964 was a year of very rapid procurement of missiles. Reduced amount would still allow for some procurement.

d. Increase of 1969 over 1964 in 1969 prices heavily influenced by activity in Vietnam.

e. Small reduction from 1964 level (in 1969 prices).

The total figure for 197x presented in Table 2 is obviously a crude one. It reflects no examination of the detailed composition of each of the individual accounts which make it up nor the inevitable changes in that composition from the base year of fiscal year 1964. Thus, for example, it does not take into account the fact that new weapons tend to be both more complicated and more expensive than those they replace and also more effective in performance. In some cases, as a consequence, smaller numbers of weapons and smaller numbers of men to operate them are required as one generation of weapons replaces another. The relations between numbers of men, dollars, and military units (battalions, squadrons, and so on) therefore change, with the result that simple projections of past figures or the use of overall price indices may be misleading. Further, from one year

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to the next, the figures in each particular program account may involve different mixtures of expenditures for procurement of new weapons and for operation of existing ones. A more precise estimate would require detailed consideration of just what new procurement programs are under way or planned in each functional category. Nonetheless, despite their crudity, and their lack of realism in any detailed sense, these figures are still useful as indicating plausible and achievable orders of magnitude.

Ideally, the table should have several more columns, each showing a different synthetic budget for the same future year, 197x, calculated on alternate assumptions about military policy. In particular, the budgetary consequences of maintaining or even increasing our overseas deployments (for example, in South Asia) and of embarking on the next round of development and procurement in strategic weapons, both offensive and defensive, should be examined. Even without detailed computations, it is clear that presently authorized programs for procuring new strategic offensive and defensive weapons, including Minuteman III, Poseidon, and Sentinel, could add in the neighborhood of \$5 billion per year to the budget levels shown for 197x. Beyond that, new weapons which have been seriously proposed by the services, including a new strategic bomber, a new land-based missile, a sea-based ABM, a new undersea long-range missile, and a new surface-ship-based long-range missile system, could add, first, several billions per year to the research and development budget and, later, \$5 billion or more per year for procurement. An expansion of the ABM system to provide a "thick" defense could move its annual procurement cost from between \$1 billion and \$2 billion to as much as four times that amount. It is unlikely that all these things will be done, or all done at once, but it is not at all unlikely that if we decide to maintain "strategic superiority" in the coming years \$7 billion or \$8 billion per year will have to be added to the totals for research and development and strategic weapons shown in column 6. The large difference between columns 3 and 4 for general purpose forces gives some idea of what maintaining large overseas deployments and force sizes might mean.

If the estimates in Table 2 are taken as having some validity, then the question naturally arises, How soon might we be able to reach 197x and what do we have to do to get there? In part, of course, it depends on what happens in Vietnam, the kind of settlement that is achieved and how soon. Decisions on redeployments in the Pacific cannot readily be made until the shape of settlement begins to emerge; reductions in the total size of the general purpose forces probably also must wait. In part these reduc-

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tions may depend on the progress of arms-control negotiations, though these may prove to be more useful in keeping future budgets at low levels than in moving sharply in the direction of lower budgets now. The initial steps to hold down expenditures on strategic weapons can be taken immediately, since they depend solely on our acceptance of the proposition that there is no urgency in beginning either deployment or procurement of new systems of offensive and defensive weapons. However, we probably cannot maintain this position for more than a few years in the face of continued failure to make progress in negotiations with the Soviet Union on mutual limitation of strategic weapons. With respect to force redeployments in Europe, timing depends primarily on the pace of diplomatic tactics in dealing with our NATO allies, especially the Germans, but, as suggested above, some prior initiative on our part may be indispensable to begin the process. All in all, the budget set down is not an unreasonable target for the new administration to aim for by the end of its first term.

But if it is to do so, the "how" becomes all important. Radical change in our military policy will cut across all kinds of vested interests, emotional, bureaucratic, political, and economic. Only determined and persistent efforts by the political leadership of the administration can bring about such changes. The President, the Secretary of Defense, and the Secretary of State must make this goal a major concern in all their actions, and direct their efforts equally at creating public understanding of their course of action, persuading Congress of its wisdom, and guiding the civil and military bureaucracies of the national security establishment along this path.

Finally, the question arises, Does not the whole structure of argument that has been erected in these pages really depend on a fundamental assumption of Soviet benevolence and good faith that does not correspond to the facts? The answer to this is that reliance on neither benevolence nor good faith—in the sense of sheer moral obligation—is involved. Rather, it is expected that *both* the Soviet Union and the United States are capable of recognizing a mutual interest in an increase in international stability, a decrease in the prospect of the use of force, especially when either of them is involved, and a relief from the economic burdens of rising military budgets. Both sides have already begun to make this recognition and to guide their policy by it. What is urged here is that—realizing the great importance of this course and the grim consequences of seeking military "superiority" and relying on the use of force as the chief instrument of our foreign policy—we put the direct pursuit of these interests at the center of our security policy for the period ahead.

Chairman PROXMIRE. Dr. Hoag, you are recognized.

**STATEMENT OF MALCOLM W. HOAG, ECONOMICS DEPARTMENT,
RAND CORP.**

Mr. Hoag. Thank you, Mr. Chairman.

Gentlemen, I am honored by your invitation to testify on so important a topic. This statement summarizes only a few points from my paper submitted for the record.

I

Let me say that I agree entirely with Dr. Kaysen that his three methods are the important things to look at: (a) issues of efficiency; (b) what we need; and (c) what are our commitments? I do want to address not merely the second two, but also the first.

All of us want, post-Vietnam, dependable arms control agreements with the Soviet Union, first of all, in order to permit us to cut defense spending.

Further, we should always produce desired military capabilities at the lowest possible cost. Our Military Establishment is not as cost effective as it should be, and I shall later suggest how it can be made more efficient.

Dependable arms controls and greater efficiency are today more desirable than ever. Otherwise, post-Vietnam military budgets may never fall below \$70 billion a year in the 1970's, and would tend to rise during the 1970's.

These budget projections assume, which is controversial, that we maintain the policy guidance for peacetime military planning that prevailed in fiscal 1965, before Vietnamese spending became large. But before turning to the important policy arguments, a realistic quantitative perspective must be established.

And before this committee already Dr. Schultze has presented some authoritative estimates of price inflation during the 1970's.

II

But let me confine myself specifically to the budget projections which are directly comparable with those of Dr. Kaysen, because we started with virtually the same base, and we are talking about dollars with the purchasing power of 1969.

Our starting point was fiscal 1965, before Vietnam spending became large. I think we want to focus on the important policy issues. Let me go over the arithmetic very briefly.

Fiscal 1965 was an austere year, as military spending took the lowest share of the gross national product, 7.3 percent, than it had in any year since before the Korean war. In contrast, the proportion of the GNP devoted to defense never fell below 8.8 percent in President Eisenhower's administration, despite an allegedly inexpensive doctrine of retaliation at times and places of our choosing.

We must, however, take that austere base and reprice it in 1969 dollars. When one does so, one is shocked to discover that two items alone—pay increases and price increases in standard consumables, such as jet fuel—account for an inflation of 21 percent in only 4 years.

More importantly, the cost of weapon systems, but also their effectiveness, rose as much or more. Thus, from fiscal 1961 to fiscal 1968 the payload capability of our tactical aircraft rose by a factor of 2.4; our long-range airlift capability rose fivefold; and the percentage of our fighters with all-weather capability rose from 15 percent to 50 percent. But a now-outmoded F-100 cost about \$1.1 million in 1961, an F-4 costs about \$2.5 million now, and an F-111A may cost more than \$7 million.

Realistic budget calculations for a hypothetical peacetime fiscal 1971, to fit fiscal 1965 peacetime policy, are dominated by *modernization* costs for weapon systems. Such costs add about 30 percent to fiscal 1965 expenditures, on top of the 21-percent increase in pay and consumables that has already happened in the last 4 years.

A fiscal 1965 force structure, but with modernized weapon systems, would cost about \$72 billion in 1969 dollars, even with a "McNamara-like" disapproval of many new weapon systems recommended by the Joint Chiefs of Staff. Apart from price inflation, continuous modernization during the 1970's could be expected to increase defense budgets about 3 percent per year, and effectiveness still more. However, as our GNP is expected to grow still faster, these defense budget projections fall to about 7 percent of GNP, or a lower share than any since before the Korean war.

This brings me to Dr. Carl Kaysen's \$50 billion defense budget for "197X." He assumes a total freeze on strategic forces in agreement with the Soviet Union, while he cuts general-purpose forces to fit less ambitious objectives, specifically as he has just stated, to meet no ground force commitment to any Asian nation. But his budget is badly underestimated, even given his policy assumptions. First, from fiscal 1964 to fiscal 1969, inclusive of modernization costs for weapon systems, he allows for only 21 percent inflation. That 21 percent inflation, as we have already seen, is fully accounted for by increases in pay and standard consumables alone. His method misses the most important element, modernization costs, and consequently produces a grossly misleading budget projection.

If one prices his stated forces in the "197X" year most favorable to his case—fiscal 1973—they would consume about two-thirds of his \$50 billion budget in operating costs alone. Only one-third would be left for the development and investment that reflect modernization. In contrast, during fiscal 1961-fiscal 1965, operating costs left about one-half of the defense budget for modernization. The Kaysen-proposed forces, I want to suggest, would be restricted to outmoded weapons systems in fiscal 1973, and still more so thereafter. If our Armed Forces have to live with a \$50 billion budget, it would be far better to cut them more sharply, so that our forces would be well-equipped.

III

With the arithmetic out of the way we can concentrate upon the important policy arguments that Dr. Kaysen has raised.

I also favor seeking agreement with the Soviet Union upon a limit on strategic weapons systems, offensive and defensive. For offensive missiles, while I prefer a limit on the aggregate "throw weight" of total forces, I should settle for a simpler limit upon numbers of bombers and missile launchers. For defensive missiles, I favor seeking agreement upon a maximum of 1,000 interceptor missiles on each side. Such a limit would preclude "thick" ABM systems. Neither side's capability for "assured destruction" would therefore be brought into serious question, and the stability of the bipolar equilibrium between the two superpowers would not be upset. At the same time, the permissible 1,000 interceptor missiles would permit each side to exploit the multiple utilities of a "thin" ABM: (1) the hard-point protection of its missile silos; (2) the denial of high-confidence to either side that it could launch "light" nuclear attacks upon the other's homeland, in response, say, to use of nuclear weapons in European conflicts and thus reinforcement of deterrence against any such light attack; (3) protection against any small accidental attack; and (4), for any would-be nuclear power that aspires to retaliatory capabilities against one or both of the superpowers, raising the price tag for such capabilities to high, and perhaps prohibitive, levels.

Others, specifically Dr. Kaysen, favor a strategic freeze at today's—or, rather, yesterday's—level of technology, and I find this a dangerously unrealistic position.

Specifically, the main question is whether the United States can put *high confidence* in a ban upon MIRV systems, *without* any inspection within the territory of the Soviet Union. I assert we can *not*. The simplest way for the Soviets to evade such a ban is by testing the critical new mechanism for the MIRV capability—the ejector mechanism for a reentry vehicle—with only one ejection per launch. And there are better ways to evade the ban.

As a result, therefore, lacking high confidence in such a ban, the vulnerability-reducing measures for our Strategic Retaliatory Forces should be so modernized that we can still put high confidence in our retaliatory capability, even when we assume a sizable Soviet MIRV capability. Nothing less would be prudent.

Note that I stress vulnerability-reducing measures, and not multiplication of missile launchers in an unlikely quantitative arms race. As for our offensive systems, because we cannot rule out a Soviet MIRV capability, we should seek lower costs per target covered by incorporating programed MIRV capabilities within our missile forces. Those who assert that this will move the Soviets to build a "thick" ABM have the logic of the argument precisely backward. It is the specter of U.S. MIRV capabilities that will best deter a "thick" Soviet ABM, because it will make such an ABM look cost-ineffective to a Kosygin, if not a Grechko.

IV

For General Purpose Forces, the main policy issue, which Dr. Kay-sen has squarely identified, is whether we retain a capability goal to meet two-plus major contingencies concurrently, or reduce the goal to one-plus contingencies.

If we publicly adopt the latter course, we shall repudiate our commitments to South Korea and Thailand. We shall, of course, save money, because then the size of our General Purpose Forces can be cut. But the first point to emphasize is that we cannot then cut these forces drastically, because preparedness for a major contingency in Europe alone requires most of our General Purpose Forces.

The Asian requirements to meet a two-plus contingency goal need not be large, fundamentally because mainland China does not pose a large offensive threat. Furthermore, the strong South Korean Army needs little beyond air reinforcement. Thailand is different, because its army of only 95,000 men could not meet overt Communist aggression, as distinct from subversion, which we trust they are fully competent to handle on their own. Yet, even here, little or no peacetime U.S. presence appears to be desired, and our reinforcement capabilities need not be magnified, as in NATO Europe, by a rigid commitment to forward defense of extended boundaries.

Meanwhile, against the dollar economies to be realized from a change to a one-plus contingency policy, we must balance the political costs. These are not vague. The Australian/New Zealand commitment to Singapore and Malaysia is related to American choice as between a forward commitment to some part of mainland Asia or an island-rim strategy. For major threats to Malaysia and Singapore, Australia's Prime Minister has said, "We would have to look to the support of allies outside the region."¹ If we repudiate all of our mainland Southeast Asia commitments, our staunch ANZUS allies are likely to follow. In such an event, the United States would have reneged upon pledged, and recently reaffirmed, SEATO commitments.² How credible then would be our security guarantees anywhere? How much stronger would the pressures be for our allies, in consequence, to opt for nuclear proliferation?

Consequently, despite its sizable cost, I favor retention of a modified two-plus contingency goal for our General Purpose Forces. Some economies from lesser overseas troop commitments in peacetime should be possible. As our lift capabilities grow, and the readiness of our reserve forces improves, we should urge our allies toward an enlarged matching mobilization capability, at lower costs than ready forces. Given allied views of small probability of any surprise attack "out of the blue," rather than one preceded by months of political warning, the penalty of reduced capabilities against surprise attack seems acceptable.

¹ *Survival* (April 1969), p. 118.

² Secretary of State Rogers, as quoted in the *New York Times*, May 21, 1969.

V

How we place a greater emphasis upon a mobilization base, with resultant economies, brings me to my promise to indicate a general way to achieve greater "cost-effectiveness." Rather than simply cut our troops in Europe drastically, and then wait for our allies to reduce their forces similarly, we should have one more try at greater NATO cost-effectiveness. We should be sick and tired of the paradox that NATO outmans the Warsaw Pact by about 30 percent, spends far more, and yet remains inferior in conventional strength in Europe. Our problem is that our units, e.g., Army divisions, are so deluxe and costly that, unlike the pact, we have too few of them to cover the ground to be defended. We need more units, but more austere ones.

Here is my suggestion for getting them. Let the American Secretary of Defense send a memorandum to the Department of the Army somewhat as follows: "Effective 'X' months from today, I order that the Soviet model for Army design be adopted as the standard for U.S. Army design, from top to bottom, at least for European contingencies, with a phasing period of no more than 'Y' years in which to accomplish the complete transition. However, this order will be rescinded or modified at any time within 'X' months, if, to my satisfaction, you present more cost-effective design than the Soviet model. For this planning purpose, you are to assume that current long-term policy guidance for combat contingencies remains as now stated, and that budgetary outlays for general purpose land forces will average \approx billions of dollars per year for the next decade. My staff and I look forward to continuous consultation about this extremely important matter. In particular, we expect your analysis to provide the professional foundation for U.S. proposals for NATO ground force redesign, as we invite counterproposals from our allies."

I do not mean to single out the Army for such reform, but all our services. From such an action we may well get sizable economies in the best possible way, as our true planning professionals are given the strongest of incentives to reduce costs without impairing desired capabilities. Let us exploit every avenue toward greater cost-effectiveness before we precipitately retreat from our pledged commitments and our prudent policies for flexible response.

Thank you.

Chairman PROXMIRE. Thank you Mr. Hoag. And thank all of you gentlemen for excellent statements, and also especially on the fact that you disagreed. It is always most helpful and wholesome in getting a vigorous expression of your viewpoints, and also in justifying your positions.

I would like to start off briefly by asking you, Mr. Kaysen, to justify your arithmetic, which Mr. Hoag has so ably challenged.

Mr. Kaufmann, you were a consultant for the Defense Department for 8 years while Secretary McNamara was Secretary of Defense. You have written a book on Secretary McNamara.

Mr. Kaysen, you were a national security officer under the Kennedy administration.

So both of you gentlemen are aware of the general atmosphere which surrounded military expenditure during a substantial period of time in recent history. Former Budget Director Schultze appeared before this committee. And I asked him why he had not challenged the missile system, the so-called AWACS—I guess it was SAGE at one point—the A-bomb warning and control system which had been set up against manned bomber attack from Russia. People have pointed out many times that Russia doesn't have much of a manned bomber fleet. He said it just hadn't occurred to him to make that challenge. And he implied that there was kind of an atmosphere in the country and an attitude on the part of the President, a feeling that to question the missile system is something that wasn't done.

I don't want to be unfair to him, but Schultze was a brilliant man and made a fine presentation to the committee, but I am just wondering if there wasn't that kind of futility, about questioning military expenditures basically. I don't mean that you couldn't question the ways or the inefficiency of a particular operation, but to question whether or not we should have the entire system seemed for many years to be something that really wasn't examined very carefully.

Dr. Kaysen?

Mr. KAYSSEN. May I respond to that, Mr. Chairman?

And of course my response is limited to my own experience, which is 1961-63. I don't need to remind my fellow Democrat, Senator Proxmire, that President Kennedy ran on the proposition that our defense was inadequate, and that contributed, as everything else did, to his close victory, nobody knows how much. So that the administration started with a policy proposition that we ought to make our defense both bigger and more effective.

It is important to remember that we then made a set of decisions in preliminary and rather hasty form in May—and it is a fact that every new President is under pressure to act hastily on the budget he has inherited from his predecessor—and then more finally in the first full budget submitted by the new administration. These decisions essentially determined the shape of our military forces until 1965-66. Only when our commitment of ground force for combat in Vietnam started to get large did it change.

As I look back on those decisions now, I think we bought too many missiles, too many Minutemen, too many Polaris boats. I don't think it is of interest at this moment to review the internal discussion within the administration on this question, but that would be my conclusion.

Secondly, I think Mr. McNamara—who in my judgment did a magnificent job as Secretary of Defense in this period—came in with a desire to take the decisionmaking process apart thoroughly, one thing at a time. He started on the strategic forces, and I think his program was to move on to other components. Now, the strategic forces were for many reasons the easiest things to do. It is much easier to calculate how many Minutemen you need if you do this, that and the other thing, than it is to calculate how many ground force divisions you need to meet a contingency, or what naval deployments should be. It is not surprising that what was dealt with first was the problem that

from the President's point of view was the most pressing, difficult, and delicate one, and the one for which he felt so uniquely responsible, and from the Secretary's point of view the one which was most capable of conceptualization in clear terms, namely, the strategic nuclear forces.

Chairman PROXMIRE. Let me interrupt at this point. What I am getting at is this: I couldn't agree with you more. I think Secretary McNamara did make a very fine contribution. But he made a lot of mistakes too, and very serious mistakes. And I think one of the reasons he made the mistakes was because Congress wasn't doing its job of challenging, questioning, debating, having the kind of hearings that we are having here, and having the kind of debate that I hope we are going to have on the floor on the ABM and many other weapons systems. And my question is, wasn't there an atmosphere in the country at that time that it just wasn't intelligent politics, you couldn't very well stay alive in the Congress if you were going to challenge the defense establishment. There were a few people who did, but not many.

The reason why I think it is especially timely and important today is because yesterday the President of the United States made a statement which in my view may recreate that same kind of uncritical acceptance for one reason or another, and as a result, permit the kind of inefficiency and waste to develop which is bound to develop unless you get a Congress that is critical in questioning and a public which demands hard answers and asks tough questions.

Mr. KAYSER. Senator, if I may add one more comment, I agree with that. Though, if we go back to that atmosphere, we have learned many things since 1960. One of the things we have learned, which I think is extremely important, is that secrecy can be overdone, that we can make public a great deal of the information about what our forces are, what we think we can do, what we think of our potential adversary's forces, and why we need our forces.

Over this period, beginning with Secretary Gates, and increasing under Secretary McNamara, the executive developed the practice of providing the basis for intelligent public discussion to an extent not previously done.

Now, I am not suggesting that you have said there was something malevolent about the atmosphere in 1960—

Chairman PROXMIRE. No, I am certainly the last to charge that there is any military mind or conspiracy, I think this is all nonsense.

Mr. KAYSER. But I do think we have learned things. And one of them is that there can be intelligent public discussion of these matters; and that most of the information can be made public; and that what really needs to be kept classified is sufficiently technical and sufficiently narrow that it does not affect the possibility of an informed discussion. That is a new idea. We didn't have it a decade ago, we do now. I think it is a very important change.

Chairman PROXMIRE. I think it ought to be encouraged and supported with enthusiasm by everyone. And I just hope that the speech of the President—Congressman Conable has quite a different view and I hope he is right—but I hope that speech of the President doesn't result in stifling the kind of criticism I think is so essential.

Now, Dr. Kaysen, I would like you to answer the very serious charge which Mr. Hoag has made against your projection. And I want to read just very briefly the heart of the paragraphs in which he made the charge.

Dr. Hoag said:

Dr. Carl Kaysen projects a much lower \$50 billion defense budget for 1970. He assumes a total freeze on strategic forces in agreement with the Soviet Union while he cites general purpose forces to fill less ambitious objectives, but his budget is badly under estimated by policy assumptions.

What is your reply?

Mr. KAYSEN. Let me add to that the phrase that my old friend Mr. Hoag used to characterize my computation is "grossly misleading."

My polite reply is that he is plain wrong. Let me see if I can make that clear. It is not a new argument; we have had a lot of correspondence on this, and we seem not to understand each other. One of us has to learn from the other, but it is not clear so far who will.

Mr. HOAG. That is clarified now.

Mr. KAYSEN. Well, we may or may not succeed.

First of all, I want to state that I used the Defense Department's own index of price increase as published in the annual posture statements. I understand that Mr. Hoag as an official of RAND, properly has access to a great deal of classified information which I no longer have access to, and for the purpose of my paper I didn't want to have access.

I accept the Defense Department's proposition that it's own index—which, by the way is 17, not 21 percent for the period in question—correctly states something. Now, what Mr. Hoag and I differ on is what it correctly states.

Mr. Hoag also makes an elementary error in arithmetic and logic which I think I can explain to him. Maybe the fact that I am explaining it in public will have more effect than my four unsuccessful attempts to explain it to him on the telephone and in correspondence. Suppose there are two components of the military budget, one made up of ordinary things—the pay of soldiers, gasoline, hay for generals' horses, ribbons for the soldier's medals, and so on, things which are included in the BLS price index which you call A. We know what we mean when we say the price index for such items has risen 10 percent, or 15 percent. The second component is made up of Sentinels, Atlases, Nymphs, Sprites, and Dryads, and all these other things with funny names which are very expensive and complicated, and which have no analogs in the civilian economic system which we can call B. Nobody knows what we mean when we say the price index for missiles has risen 15 percent, since we never build again the kind of missile we once built.

Now, what Mac Hoag is saying—if I may be familiar with my old friend—is, Kaysen argues as if the price increase which is the increase for A is the increase for everything. Now, let's assume that Hoag is right and Kaysen is wrong, and the increase for B is some very big number, whatever it is. In fact, I used a single number for both components. My number was the Department of Defense number, 17 percent. I said, $A=17$ percent; $B=17$ percent. Suppose in fact the true number for B was 100 percent—Hoag asserted that the true number was something like 30 percent, but I don't know how he got it, and I will come back to that in a minute. Still, it would be an error to say that I allow nothing for modernization, because the weighted average of 17 percent and 100 percent isn't 100 percent. In other words, unless Mr. Hoag is ready to assert that in the 1964 fiscal year, which is my base year, we were procuring no new equipment, no new missiles, no new tanks, no new ships, no new radars, his argument is logically wrong. In my base year we were in fact procuring some amounts of all these things; they are flowing into the inventory. Between my base year and my target year 197x, the price of these things will have risen by some number in terms of 1969 prices. Then the quantity of modernization that is built into my budget is the increase of that price index divided into the 1964 procurement rate. The price index increase may be very high. If it is 100 percent, that would halve the 1964 rate of procurement. But that price index would have to be infinity—and we have never seen a price index of infinity, not even in Germany in 1921—in order for Mr. Hoag's extreme and unflattering characterization of my argument as "grossly misleading" to be correct. I agree with Mr. Hoag that it is quite likely that a more accurate costing would produce a somewhat larger number than the 17 percent built into my calculation and my statement, I think, reflected that.

I further agree with Mr. Hoag that, working the way he does, he can produce a more accurate costing than I do. I want to point out, however, that Mr. Hoag did something very different from what I did, and therefore his comments on what I did are logically wrong. He said in effect: we will take these forces and we will price them out item by item. I never did any such thing, and I couldn't have done any such thing, since the published budget figures provide no basis for doing it. I simply said, let's take the Defense Department's price index number, and accept it at face value. It is clear that that is not correct. But it is also clear that the price index for hardware, military hardware, won't increase to infinity by 197-, or by 1979, and unless it increases to infinity it is incorrect to characterize my proposed target budget as containing no provision for modernization.

To see a concrete example of what I am saying, look on the next-to-last page of Mr. Kaufmann's statement, where there is a table called sample post-Vietnam defense budgets. He and I have had just had a little private colloquy in which we have agreed that the number that translates my 1969 dollars into his 1972 dollars is something like plus-10 percent. If that is so, my 1969 dollars of expenditures on strategic forces, which are 6.5 billion, would translate into his 1972 dollars as 7.15 billion. If you look at his figures, what my budget

buys is in this category something a little under what he calls streamlined base line. Mr. Kaufmann can explain these figures better than I can, but it is my understanding that these are figures which do include a significant allowance for modernization.

Let me make my final point on this, if I may. It is that it is a logical confusion to use the term "modernization inflation." Inflation in the lingo of the profession of which you, Senator Proxmire, and Mr. Hoag and I are old members refers to the increase in the cost of buying the same thing. The best example of inflation—and perhaps I can look at you as I say this, Mr. Chairman—is the change in the cost of buying a haircut. It is the same haircut, and it is the same head, maybe a little older; but the price level changes. Now, the sense in which you can look at a solid fuel, inertially guided Polaris or Poseidon with multiple reentry vehicles, and talk about the price of buying a missile as compared with the price of buying a liquid-fueled Atlas just isn't what we are talking about. It simply makes no sense to describe that change in terms of inflation. What we can sensibly do, is talk about the change in the cost of meeting what we think the enemy's capability is. I think what Mr. Hoag's argument—not only his arithmetical argument, but his deeper policy argument—ignores is that our own rate of "modernization" is a very important input into determining the other fellow's rate of modernization. This is a two person game. I think we have been listening to a discussion that sounds as if we were alone in the world, or as if the military activities of other nations were given to us independently of what we did. I don't think that is the way the world is at all.

Chairman PROXMIRE. My time is up. Congressman Conable very generously yielded to Mr. Hoag to answer.

Representative CONABLE. Mr. Chairman, let me say that I think it is about as likely that Senator Proxmire will be stifled by a speech made by the President as it will be that Mr. Kaysen will be stifled by a statement that his budget projections are grossly misleading. I think that stiflement is not likely to happen here in this committee.

Mr. HOAG. Certainly not.

Chairman PROXMIRE. I agree with you.

Mr. HOAG. Fortunately on this question, I think the previous testimony of Dr. Schultze is very good on the point. The first thing to state is that the official index for price increase, which was issued by the Comptroller of the Department of Defense, and which was used by both of my friends in their projections, is an index which, as Dr. Kaysen has very correctly said, applies only to those things that you can measure in physical constants over time—a ton of coal of 1965 was a ton of coal in 1975, because it is the same grade, and we can talk precisely. That is what his index measured.

That is the index which Dr. Kaysen used uniformly for such utterly different categories of the program budget as strategic retaliatory forces on the one hand, and training on the other. The point is, the Comptroller—and again Dr. Kaysen has correctly stated it—is totally unable to produce an index number for something that is a totally new item, like a missile that never existed before. And therefore he could not produce it, and there is no such index number.

Now, I did not use infinity. The estimate turned out that way, when we repriced these forces with the weapons systems that were at issue, to comply with the "McNamara-like" philosophy as best we could project it, for rejection of forces as well as for addition. For example, your statement about the AWACS system. We put in the F-106, and disagreed with the JCS recommendation for the F-12, for example.

Now, the problem with respect to the term which Dr. Schultze's paper footnoted as "modernization inflation," we want to know what part of this is productivity, and what part of it is not productivity. And the measurement of military effectiveness is far more difficult than the measurement of military cost.

We have some proxy measures. But on those he pointed out, if those are genuinely productivity increases, why can we not take all our productivity again in terms of lesser numbers of weapons? If we have an airplane that carries twice as much, let's buy half as many. Well, that is marvelous, if you have a cooperative enemy with an arms control agreement, and you are proceeding to cut our units, the number of air wings, by a factor of two, as productivity goes up by a factor of two. Unfortunately, specifically with respect to Europe, the Soviet Union has been modernizing its forces without cutting their level. And that was my reason, therefore, for including, not infinity, but 30 percent for "modernization-inflation," which was a realistic projection, and incidentally far below the cost of forces recommended by the JCS.

Chairman PROXMIRE. Congressman Conable?

Representative CONABLE. Thank you, Mr. Chairman.

I might say that I think this dialog is extremely helpful to us. And I would like to express appreciation to Dr. Kaysen for having so clearly set out the three methods to be followed in seeking to reduce military expenditures. As I recall, your first one was that we should seek to increase the efficiency of procurement, and to get the same effective quantities of military performance at less expenditure.

The second, more scrutiny of what military forces are needed.

And third, a re-examination of our military and diplomatic commitments with a view to reducing them. I would like to ask you gentlemen what you think is the proper function of this committee with respect to these three alternatives. I ask this question because I am concerned about our undertaking to tell the Congress, for instance, what we think should be our posture in the world. Obviously this is a function for the entire Congress; and for the President. They all must participate in this. We should perhaps point out the alternatives here, and perhaps through the kind of dialog you have been having make available the implications of some of these alternatives. However, probably we can perform our greatest service with respect to the first alternative to review the nature of the military procedures in procurement, to seek not to impinge necessarily on the functions of our Armed Services Committees, and our appropriations committees, but through summary to highlight some of our recommendations in the economic field with respect to procurement. I would like to have the view of you gentlemen as to what the function this committee can most effectively fulfill with respect to trying to reassess our military priorities.

Dr. Kaysen, would you start?

Mr. KAYSEN. Congressman Conable, I am glad to respond. But I don't feel very confident in my response. I think it is hardly for the people in my business to have a view of how the Congress should conduct its affairs. You rightly said that the discussion of national priorities is a task in which all the Congress is concerned. I agree that as I understand the customs of the Congress it would be rather curious if the Joint Economic Committee started to hear witnesses on the state of the Southeast Asia Treaty Organization, and so on, and that that is the province of some other committee of the Congress.

On the other hand, I think that of the three things that I talked about, the first and the second are interrelated, and the second and the third tend to be interrelated. And I think that it is possible to have an examination which focuses on the first question, but also goes into the second. On the other hand, I think it is inevitably necessary that any committee which wishes to deal with this problem recognize that there is a problem in the third area. Whether the committee itself should address itself to that problem, whether it should seek reports from Foreign Relations and Armed Services, is a matter which I would hesitate to express a view on this.

Representative CONABLE. Mr. Kaufmann, do you have any thought about this?

Mr. KAUFMANN. Like Dr. Kaysen, I think it would be very presumptuous of me to try and suggest to the Congress what its organizational—

Representative CONABLE. I am not trying to put you people on the spot about this. But I am somewhat puzzled about how we can make the best contribution in this field. I agree with Senator Proxmire entirely that this is an appropriate subject to study. But I do think we have got to limit our study to a certain extent and stay out of the world picture when we are going to impinge too much on the functions of others in the Congress.

Mr. KAUFMANN. If I may respond in the most tentative fashion, I have been impressed by the reports of the Joint Economic Committee. And I also find it extremely difficult to imagine how one can look at the economy of the United States, its functioning, and the allocation of resources to programs in the domestic field, without taking the most active account of this very large percentage of the national budget which has gone to the Department of Defense. I realize that there are jurisdictional problems. And it may very well be that the suggestions that Dr. Schultze made the other day about the establishment of a new committee are the appropriate procedure.

But I find it very difficult myself to see how one can talk about the rest of the economy or the rest of the Federal expenditures without taking account of something like 50 percent of those expenditures.

Representative CONABLE. I am perplexed by it, or I wouldn't have asked this question.

Mr. Hoag, I would like to have your response too. But I would also like to ask you, since my time is almost up, one other question that I want to touch on as well. And that is the extent to which the dis-

parity between the cost of maintaining the Russian force, the Warsaw Pact force in Eastern Europe and the cost of maintaining the NATO forces there is directly the result of differences in pay scales? I think there must be a very substantial difference in pay scale, and that is not going to be affected by austerity program you suggested at the end of your statement.

Mr. HOAG. Your second one, sir, the answer is easy. The pay scale portion of this comparison is small. This is a question of the complete table of organization, equipment, and weapons systems of very different divisions. And it turns out, somewhat surprisingly, that the higher pay rate is not an important component.

Representative CONABLE. Isn't there a considerable disparity in the pay rates?

Mr. HOAG. Remember also I am talking about West Europe primarily when I discussed NATO, which does not have American pay scales.

So that is a minor element. Let me return to the more general question. I think that the comments that other witnesses have offered in addressing all three of these very general issues—efficiency, what we need, and our commitments—this, of course, as you have said is a function for the entire U.S. Congress. And it cannot be the function of any one committee. If there were to be a specialized role for this committee, I am tempted to think that it is appropriate that one would focus on the first, upon issues of efficiency. Perhaps our panel is prejudiced, because not only are Carl and I economists but, although he disclaims it, Professor Kaufmann is an economist by accreditation also. And one thing economics yields us is criteria for efficiency. And these criteria can be applied, and in fact were applied by Mr. McNamara within the Department of Defense, to secure sizable economies. I think the problem with respect to staffing this subcommittee for the performance of this function will turn out to be very difficult, because it is too easy to concentrate on issues of cost to the exclusion of the much more difficult but equally important issues of effectiveness. And it, therefore, would be incumbent upon the subcommittee to insure that it was staffed with the requisite competence, so that it can inquire into both halves of the efficiency problem.

Representative CONABLE. Thank you, Mr. Chairman.

Chairman PROXMIRE. I would like to just say to Congressman Conable that it is very interesting that this committee inquires deeply into every phase of taxes, and everybody says that is a right and proper thing to do. Monetary policy, labor management relations, and the question of jurisdiction is never raised, only when we get into some inquiry into the military does anybody say that we may have a question of jurisdiction, and challenge that jurisdiction. And, as I said in my opening remarks a couple of days ago, no study of the national economy today can ignore the terrific impact of the military budget. And I would like to just read what the overall committee said to this subcommittee. They urged a formal and comprehensive study of national goals and priorities with a view to establishing guidelines for legislation and expenditure policy. Now, we aren't interfering, we

never have, with the jurisdiction of another committee. We couldn't if we wanted to. We can't recommend legislation directed to the floor of the House or the floor of the Senate. What we can do is make a study, as Congressman Conable said earlier, a factfinding study, and Congress can make whatever value or fact judgment it wants to in connection with it, and it can go on our suggestions or not. What we want to do is something which was not—has not been done in Congress, and should be, and that is have a hearing or examination or record so that we can have a debate on our national priorities, so that when this massive military budget comes to the floor we will have a basis for considering it, not just in terms of the armed services narrow area of consideration as to whether one weapon is better than another, but whether we should move ahead with the kind of military budget which is so enormous, or whether we should consider whether this is going to take money away from education, take it away from housing, or many other areas.

Nobody else is doing it, so we should do it, it seems to me, as a Joint Economic Committee.

One more point. Treasury Secretary Joe Barr, who, to the best of my knowledge never served on this committee, or if he did serve it was very briefly, when he was in Congress, made a recommendation last year on how the Congress should take a more critical look at overall spending. And his argument was that the Joint Economic Committee should initiate this kind of critical review by taking a look at the whole economy and make recommendations with respect to the allocation of our resources. And then, of course, the Ways and Means Committee and the Finance Committee should consider in that framework the kind of tax system we should have, and the Appropriations Committee will allocate the revenues that are received.

So I don't think we are butting into anybody's business or sticking our nose into areas that are not our concern. I think it is our duty to do this, and I can't understand why anybody should object, except that I do understand that it is no reflection at all on Congressman Conable, who is a very able and obviously a very articulate and intelligent person, except that when we get into the military everybody is sensitive that there is going to be a debate and a discussion, and maybe we are going to be able to reduce, for a change, this enormous burden, and reduce it in a rational and responsible way.

Representative CONABLE. I would like to defer to the experience of my chairman about the traditions of this committee. I think they are rather all encompassing in their scope, and probably appropriate. I would like to point out to him that if I were at all sensitive on intruding on the jurisdiction of another committee I would not have suggested the first area of inquiry, which is possibly more controversial than the other two. The responsibility of the entire Congress cuts across the other two alternatives having to do with very broad national priorities, while the first one is probably exclusively within the jurisdiction of the Military Affairs Committee of the respective Houses.

And I don't object for a minute to our intrusion in this respect. I am not sensitive about this, sir. I simply would like to have the expression

of these experts about where we can perform the most valuable function as an economic committee.

I think probably I would tend to agree with Mr. Hoag about the first Kaysen alternative, with respect to which there is no question we have valuable jurisdiction.

Chairman PROXMIRE. I am delighted with that revision of your remarks.

Mrs. Griffiths?

Representative GRIFFITHS. I would like to ask the gentleman from the RAND Corp., what is the salable product of RAND Corp.

Mr. HOAG. I am sorry to be so colloquial, Mrs. Griffiths, but I am afraid the standard joke is research and no development—the product is pieces of paper.

Representative GRIFFITHS. And how much of that research do you sell to the Government?

Mr. HOAG. About four-fifths to various agencies of the National Government. We do no contracting for private industry whatsoever. We are now moving into some areas, for example, of urban affairs—such as we are now specifically doing research for the city of New York upon urban problems.

But by our charter, and by ruling of our board of trustees, we contract solely with government agencies or foundations for projects in the public interest and not for private industry.

Representative GRIFFITHS. And what is the form of the contract, Mr. Hoag?

Mr. HOAG. The form of the contract is cost plus 6 percent—although you would have to ask our administrators for a more accurate statement than the one I have just given you.

Representative GRIFFITHS. Cost plus?

Mr. HOAG. The 6 percent by terms of our charter is to be devoted to research in the public interest. This is what we call our RAND-sponsored research program, which emerges from research proposals that members of the staff make that wouldn't be appropriate for any one of our sponsors. They may be on something as esoteric as a public health problem.

And the money is by charter used for this purpose. And this devolves back to the original grant of money from the Ford Foundation, which asked that they be reimbursed in this form.

Representative GRIFFITHS. When you deal with the Defense Department, does the Defense Department issue a change order to—

Mr. HOAG. They certainly do. The contracts with both the Department of Defense, or different subagencies of the Department of Defense—the Advance Research Project Agency, the Air Force, and others—these are subject to constant negotiation and renegotiation.

Representative GRIFFITHS. As a matter of fact, Mr. Hoag, don't you really regard the RAND Corp. as a service organization? Isn't it largely like a firm of lawyers? Why does not the Government have a contract for services? You are really negotiating with the Government a production line contract.

Mr. HOAG. I am afraid I would respectfully disagree utterly with that characterization. We were created—and this, I think, is a great tribute to the then chief of staff of the U.S. Air Force, General Arnold—because he wanted a body of independent critics who, if we use the slang of today, would tell it like it is, and not as the client wants to hear it. And specifically, if Senator Symington were here, I think he would recall from his days as Secretary of the Air Force—and I think Dr. Kaysen will recall from his days in the Executive Office of the President—that we have always had the tradition of doing independent research, which often puts us in violent conflict with the current prejudices of the client in question, whether it be the Air Force, the Office of the Assistant Secretary of Defense for International Security Affairs, or anyone else.

Representative GRIFFITHS. I don't agree with you. My quarrel with the RAND Corp. always has been, ever since I have seen those first contract, that they were set up like production line contracts. There is absolutely no reason on earth for a contract for services to be set up that way. The change order shouldn't be issued. You should be hired to think by the year and not by the project. Because in my opinion you could spend 1 minute figuring out the project and the next 99 figuring out how to make more money on it.

Mr. HOAG. I am sorry, I misinformed you. It is not done by project, the negotiations are for a period of time.

Representative GRIFFITHS. And what are the change orders for?

Mr. HOAG. No, they are not change orders related to projects, these are simply related to the grand monetary total. For example, the Air Force portion, which is called Project RAND, may be subject, because of budgetary pressure within the Air Force, to a renegotiation which reduces the total level. This is not in terms of a specification of a list of projects, and elimination of the specific ones.

Representative GRIFFITHS. Exchange or not, it is still subject to the same type of criticism. I really see no reason for it.

Now, I would like to ask you, or I believe Mr. Kaufmann, whose testimony I also read, you have placed much emphasis on the disarmament conference met, and agreeing upon certain things, and then we could reduce the budget. To me, while I hope there is such a thing as a disarmament conference, and it does work, this is something in a way sort of laughable.

Supposing a disarmament conference does agree that we will wipe out these and these and these weapons, both Russian and the United States. Would you rely absolutely on Russia's statement?

Mr. KAUFMANN. If I may start, I suspect you may be referring to Dr. Kaysen's submission, because the results that I was trying to provide, however, tentative, were intended to be independent of any agreement with the Soviet Union on arms control. I am simply trying to suggest, as you change the assumptions, as you change the inferences that you draw from the existence of those assumptions, what are the implications in terms of the forces and the budgets?

Representative GRIFFITHS. What assumption would you start with if an exceptional agreement were made, if they really weren't going to make the weapons and we really weren't going to need any?

Mr. KAUFMANN. I think it would depend pretty much on the category of weapons. I think there are some areas in which unilaterally we would have considerable confidence that either they were or they were not proceeding with the research and development and deployment of systems. There are some areas, and I think the multiple independently targetable re-entry vehicles present a particularly difficult problem in this regard—there are some areas where unilateral U.S. measures of inspection will not prevent grave difficulties in the determination of what the Soviet Union is doing. And I think here, although it always is a two-edged sword, one does have to fall back on some very conservative planning in trying to take account of this kind of uncertainty.

Representative GRIFFITHS. What would you suggest, Mr. Hoag? Would you, once a disarmament conference had agreed upon certain weapons to be dismissed from the arsenal, would you advise the Government then to dismiss them on that and nothing more?

Mr. HOAG. As part of my statement I did specify the position on the kind of strategic arms agreement that I would hope to achieve from the forthcoming Soviet-American talks. I specified this in terms of numbers of defensive interceptor missiles, and was willing to settle for numbers of offensive ones, although I preferred a somewhat more sophisticated limit. The point is, this puts me in direct opposition with Dr. Kaysen, who favors a strategic freeze agreement right now with no—with zero or possibly a number distinctly less than 1,000 interceptor missiles—and who would want to freeze the level of technology of offensive missiles in the hope that neither side could deploy a MIRV system? He finds this realistic and desirable. I find it unrealistic and dangerous. And there is the difference between us.

Representative GRIFFITHS. My time is up. But I would like to say that I would assume that you couldn't possibly rely simply upon the statement that they were going to do it, and you couldn't possibly advise anybody. And, therefore, if you can't rely upon that, and if they must be relying upon what they know we are doing and not upon any promises we are making, why don't we just stop making some of these weapons? That must be the basis to which they are building their defense—not on what we say, but what they know we are doing. And I hope we have intelligence good enough that that is exactly what we are doing.

Now, I think if we got the place—I never have understood the logic of a disarmament conference. Are you arguing over and agreeing upon how many people you are going to kill, or are you going to do it cheaper? Is this the logic of it? If this is the whole thing, then maybe the next step could be that you could let them pick out the ones they wanted killed and we would do like them, and you could have revolutions in each country and engage in a missile contest.

Thank you, Mr. Chairman.

Chairman PROXMIRE. Congressman Moorhead?

Representative MOORHEAD. Thank you, Mr. Chairman.

I will carry on with what Mrs. Griffiths was talking about. Do I correctly understand the difference between Mr. Hoag and Mr. Kaysen to be that on the question of the MIRV and the ABM you, Dr. Kaysen, would propose that the freeze be at zero for both of those weapons systems, and that you, Mr. Hoag, would have a fixed number of both to be agreed upon?

Mr. HOAG. I would fix the number of launchers. I find a ban upon the number of re-entry vehicles per launcher to be something that we could not rely upon with high confidence, and therefore I would focus upon the number of launchers, and allow each side to incorporate what modernization within its warhead that it saw fit to do.

Representative MOORHEAD. Would all of you gentlemen agree that if we want to at least consider the zero option in the SALT talks we had better take some quick action to stop the MIRV testing program before that option is precluded?

Do you want to comment, Dr. Kaysen?

Mr. KAYSEN. If I may speak for myself; yes, I do agree with that strongly. I think Mr. Hoag has correctly stated what I said in this paper, and elsewhere more recently, the right number of ABM launchers to agree on is zero. I think the Soviets have some, but there is some question as to whether they shouldn't be counted negatively.

The MIRV question is complicated. Mr. Hoag is correct in saying that there is no simple way to deal with this problem. I would remind him and the committee that when we were first considering the possibility of a test ban some people thought that we could test undetected in enormous holes in the ground, behind the moon, if necessary, and so on. I think that it is not a correct judgment to make that everything that seems to be technically difficult is politically impossible or unwise. So that I have more hopeful views as to what might be possible on agreements about MIRV's.

However, a detailed discussion at this moment would get into some classified questions, which I cannot comment on.

I would say, in answer to your last question, Congressman Moorhead, that I feel very strongly that we should get the talking started before we make the commitments to replace Polaris by Poseidon, and Minuteman I by Minuteman III.

Representative MOORHEAD. I have been told that as of today neither the Russians or the United States have sufficiently tested the MIRV so that without further testing it could be deployed. At least there are some who say that we can detect or have a pretty good suspicion that the other side is testing the MIRV. But Mr. Hoag said that we cannot detect it. Is that an official estimate, or is that your personal opinion?

Mr. HOAG. That is a highly controversial subject within the Government today on which different agencies of our Government, I believe, have taken different views. I would like to believe that our unilateral monitor capabilities were so good, our surveillance of what takes place in space, that any means for the Soviets to test the one remaining critical mechanism—that we could put high confidence in

them. I regret to say that I find the technological arguments overwhelming, that there are many ways for the Soviets to test that would evade even the very sophisticated monitoring capability that we already possess.

Representative MOORHEAD. I wonder if we wouldn't have enough confidence to make us suspicious.

Mr. KAYSEN. May I speak to that, Mr. Chairman. Mr. Hoag has very clearly said that this is a controversial question. I do want to remind the committee that he is an economist, and so am I. Some of our best friends are physicists, but we are not. We have listened in various contexts to many discussions of this subject. And I have heard people with experience in weapon design, with deep knowledge, who said, you can't really do the interesting thing without leaving some tracks. Other people say, well, you could do the interesting thing, because you would, as Mr. Hoag earlier suggested, you would test the mechanism with only one reentry vehicle, and therefore you wouldn't leave a characteristic track.

But even then there are further points to consider: one, whether that is feasible, and two, whether we would rely on such a test. In other words, there are some who say, in effect, a test that leaves no track has not answered the crucial question. I have probably gone a foot beyond my knowledge, and am inviting Mac Hoag to go 2 feet beyond that, but maybe he will stop.

Mr. HOAG. If I may, I think the easiest example to use for this as to what you need to establish in space, and to measure, is whether you are able to impart to an object in space which contains several objects specific differential velocities to the different bodies that are aboard. Consider our purely scientific NASA space program, where it is customary for us to make economic use of one booster to put many objects in space, for different scientific purposes. One will be to measure radiation, and another will be for something else. Suppose our scientists say to us, well, in order for the purpose of instrument A to be fulfilled it must establish this precise orbit which is different for the orbit for No. 2. This we can measure. When you have measured it you have measured precisely what you need to know for a MIRV capability, which is whether you are able with precision to impart differential velocities to objects in space.

Representative MOORHEAD. Professor Kaufmann, I would like to ask you in your capacity as a political scientist a question. Senator Fulbright said yesterday that the ABM may be the first instance in his long and distinguished career in the Congress where the Congress as a whole may reject a military request. The chairman repeated this today. As a political scientist, as you look at the institution of Congress, is there any reason that you can give us as to why this situation exists?

Mr. KAUFMANN. I am not quite sure whether I am a political scientist any more. But first, if I may speculate, these are extraordinarily weighty, agonizing decisions, and it is entirely understandable that where the views of the Department of Defense are presented, and

presented with confidence, that there would be great reluctance to challenge the array of knowledge and expertness that has gone into the arrival at these decisions.

Second, for reasons which I am really not qualified to speculate about, it seems to me that with the exception of the Senate and House Armed Services and Appropriations Subcommittees, it has not generally been regarded as the province of the other committees to review these issues.

Third—and if I may revert to a question Senator Proxmire asked earlier which I don't think really got fully answered—and here I speak from a worm's eye view of the last 8 years—I think the Director of the Bureau of the Budget felt, and I think with considerable justification, not only that Mr. McNamara was working for the President, but that he was doing a good deal of the job that one traditionally assigns to the Bureau of the Budget in the review of programs within the Department of Defense. And I think Professor Schultze in some ways was overly critical of himself in not indicating—I can't speak for the Congress, but I think on the Executive side there was a feeling, which perhaps declined after the expansion of the war in Vietnam, that this kind of detailed, careful review was already taking place within the Department of Defense, primarily in the Office of the Secretary, and therefore that one could have great confidence in the objectivity and care with which that review was taking place.

Representative MOORHEAD. Thank you. My time has expired.

Senator PROXMIRE. That is really an astonishing answer when you think about it. I think you are absolutely right, that was indeed the feeling. But this doesn't make any sense to me. After all, this is by far the biggest department, with spending which is almost equal to all the other departments combined. And the other departments also have secretaries which are concerned about keeping costs down, and a review of the recommendations of the various bureaus which are under the Department. And to feel that somehow the Secretary of Defense, and as wise and able a secretary as Secretary McNamara actually was, should be set apart because he somehow has a cost-conscienceness which is at least equal to and perhaps superior to the Budget Bureau is ridiculous—although as I say, I don't mean this in any way to demean McNamara, for whom I have the highest respect.

You refer in your statement to studies by the *Congressional Quarterly* and by Robert Benson indicating that we could reduce military spending \$9 to \$11 billion roughly without reducing our national security. How do you appraise these statements? Do you agree with them or disagree?

And I would like to ask each of the other gentlemen to give me a brief opinion on the validity of this argument.

Mr. KAUFMANN. It is a very difficult question for me to answer, Senator, in the light of my background. All I can say is that I have reproduced only a very shorthand version of a much more expansive article in the series in the *Congressional Quarterly* which, I believe, went through three different issues of the *Quarterly*. But they did strike me, and I think Mr. Benson's article also struck me, as having

a very considerable authority to them in the way which they discussed those specific issues. So that my tendency has been to take these proposals with a great deal of seriousness, although I might personally differ on specific parts of the recommendations that are contained in the two articles.

Chairman PROXMIRE. Dr. Kaysen?

Mr. KAYSEN. I would make the same kind of comment. I have one problem with two sets of figures. I suspect that they really refer to TOA and not to either NOA or expenditures—I say I suspect that, though I have previously read these articles, but I don't now have them in mind clearly. And of course we all know that when you have a big new procurement program the big dollar number appears in 1 year, but it is spent over a period of years. And in that sense I would say that these figures might be right. But whether they refer to an expenditure change is a different question which one ought to look at separately.

Mr. KAUFMANN. Could I just add, Senator, I don't recall where the Congressional Quarterly is concerned, but in Mr. Benson's article the suggestions he was making referred to potential expenditure cuts within a period, I believe, of about 2 years. And he was, I believe, concentrating on the expenditure side rather than TOA, or NOA.

Chairman PROXMIRE. Mr. Hoag?

Mr. HOAG. I think with respect to this suggested list I would have no comment on much of it, for the reason that I am not familiar about the definitive systems analysis with respect to the proposed substitution. My statement makes it clear that I disagree with his first one about ABM's. With respect to phasing out SAGE and your earlier comment about AWACS, beginning as early as 1961 I should say that the SAGE system was phased out as promptly as it was possible to do so at considerable savings, and regrettably the necessity at the time for providing a backup system, which did cost some money, to compensate for the inadequacy of what turns out with hindsight to have been a very bad system.

And the point is that this was thoroughly analyzed. It has been done with all possible speed. And I am convinced that, for example, the AWACS on cost-effectiveness grounds will beat the SAGE system by a factor of several-fold.

My final comment, the only one that I would comment on here is on the fast deployment logistic ships. This gets us back to the question really of our commitments.

Chairman PROXMIRE. It is very interesting, your AWACS reaction that it will best SAGE by several fold. That is the kind of reaction that it seems to me that we have gotten from the Department of Defense for so long.

That is the part of our trouble. But do we really need the system at all? The point is, the Soviet Union doesn't have a manned bomber fleet. So what are we doing spending money to find out whether it will work or won't work, or works well or less well, spending hundreds of millions of dollars for a system that doesn't have much of a purpose? That is the basic question.

Mr. HOAG. I think the question with respect to both air defense, and with respect more generally to aerospace defense, is that there is a difference between telling an enemy that you have zero defense, which tells also that he can very cheaply invest in bulk deterrents with guaranteed free arrival; and having something by which he looks at what you have, which will be a modest system—and AWACS will be a modest system—and says, can I penetrate that system with high confidence, and to what level of expenditures am I driven to do so? And that is the type of calculation that has to be made in order for a relevant comparison to be made. To look at the cost number alone is to look at only one half the problem, and to look at the easy half of the problem, while ignoring the hard half of the problem, which is effectiveness.

Chairman PROXMIRE. I might point out that the Congressional Quarterly study was based entirely, as I understand it, on interviews with military experts in the Pentagon, it wasn't based on some notion that somebody thought we didn't need all this defense, it was a very careful study. And I think that most of us realize that the Congressional Quarterly is objective, it doesn't have an axe to grind, at least it doesn't have any record of crusading in any area. And therefore it seemed to me to have some validity, and to be something that we should seriously consider.

Mr. HOAG. Seriously.

Chairman PROXMIRE. Do you want to comment further, Mr. Kaufmann?

Mr. KAUFMANN. Yes, sir; if I may, because I think it relates back to some of our earlier points.

It may well be that AWACS and the F-106X will turn out to be by a factor of two or three, more effective than BUIC and the current air defense system. But I think one of the issues here is that Dr. Hoag has, if I understand him correctly, rejected the notion of a heavy anti-ballistic-missile defense which would provide for a major defense, and yet at the same time you are continuing to provide, as one of these perhaps vermiform appendices, a continuing continental air defense system.

Chairman PROXMIRE. In other words, they have missiles. We are not defending against them. But they don't have a bomber fleet, and we are defending against that?

Mr. KAUFMANN. Or we have an expensive continental air defense system which runs on the average of about \$2 billion a year, and this is designed against a very light, and I think by now, highly obsolete Soviet heavy bomber force. And it comes back, I think, to this whole question of, what kind of assumptions are we making about what we are going to try to do—and I think many of these assumptions are very critical—before we can ever get into the question of the relative efficiency of AWACS, F-106 versus BUIC and F-102.

Chairman PROXMIRE. I would like to ask you this, Dr. Hoag:

You place great importance on what you term "modernization costs" for weapons systems, which you claim is the most important element in projecting further defense budgets.

I wonder if you would explain what you mean by modernization costs and how you distinguish them from unnecessary cost overruns, padded costs, hidden profits, and "gold plating"?

Mr. HOAG. I think, as Dr. Kaysen was saying earlier, none of us was able to distinguish in this category, because you literally lack the basis for creating an index number. And my proposal, for example, a very drastic one, used by way of illustration, was a device to force the services, in considering modernization, to put as much weight upon costs as they do upon effectiveness. Senator Symington told us yesterday one of the best comments he had heard from a general in his tour as Secretary of the Air Force—and I thought it very apt. He said, a military man is trained in effectiveness, not efficiency. I think that is the core of the matter. He is trained that way for the most understandable of reasons. He is taught to accomplish his mission while minimizing casualties to his forces.

And this is a tradition that we can all understand and admire. At the same time we must bring to bear within the bureaucracy countervailing power to see that cost is equally considered. Some of these modernization programs have become too lavish.

Chairman PROXMIRE. Are you building into your modernization estimates, however, the kind of experience we have had? If you do it historically it seems to me that you make the assumption that they are going to continue to stress effectiveness and ignore efficiency, and that we are going to continue to have gold plating and all kinds of unnecessary, elaborate costs, and weapons which we don't need. On the other hand, if you do it on the basis of the assumption that we are going to make some improvement, then I should think that your modernization factor should be less.

Mr. HOAG. Yes, sir.

Chairman PROXMIRE. I would like to ask you, Dr. Kaysen, in your statement you project an international climate which is far more optimistic than that which we have experienced in the past and which provides a rationale for your defense budget projections. I would like you to elaborate on your views concerning the international climate and expand, if you would, on the reasons why you anticipate that a successful arms control agreement will or can be made with the Soviets.

Mr. KAYSEN. Thank you, Mr. Chairman.

I think it is a little inexact to say I project a more optimistic international climate. I do in some respects, but not in others. I think with respect to the Soviet Union, to take that first, that both of us are learning the lesson of nuclear weapons, namely, that they are not useful for the purposes of ready translation into political power.

Chairman PROXMIRE. Let me interrupt at this point to say that I have listened to some of the speakers on the Council for a Livable World has made available. I think it is a marvelous service. But what has appalled me is the real likelihood that a first nuclear strike may be feasible. Maybe for the first time we no longer have the balance of terror that Churchill talked about, when the first nuclear strike would be suicide. At least we may be moving in the direction of a logical first strike, if MIRV has the fantastic capability that has been described.

And if it cannot be disciplined with a unilateral inspection, we have to move quickly—and we are testing and have been testing for some time, and the Soviets are beginning to test MIRV—once that is established, the fantastic killing power of this multiple warhead will be such that it could conceivably eliminate our retaliatory capacity. In those circumstances we will go into a worse climate, technologically—not that there isn't a better attitude and greater understanding, but with an enormous technological capacity, isn't that true?

Mr. KAYSEN. I don't think we are really differing, Senator. I am saying that these enormous technological capacities, which I would characterize perhaps in a slightly different way, make political leaders more aware of the problem of trying to use military force for some politically rational purpose, this kind of military force.

If I may say so, what troubled me about the whole of Mr. Hoag's statement is that it was a business as usual statement, in a very deep sense. I am sure that his instincts about how you could do things more efficiently are good. I am sure, because I know from long experience, that his capacity to criticize in detail proposed deployments, proposed force arrangements, and so on is great and very valuable. However, it seems to me his whole statement was formed upon the tacit assumption that the international political world we are going to go on facing is basically like the one we have been facing.

The basis of my whole essay is, the proposition that it must change. It must change for two reasons. One, with respect to the relations between the two nuclear super powers the kind of possibilities you talk about, and other possibilities which one could conceive of—land mobile missiles, larger under sea systems, and so on, simply point even more sharply to the proposition that stability may not be achievable without arms control.

We have had more than a decade now of stability which was achieved partly by the design of our forces, and partly because on neither side would the political leaders test what might lie on the other side of the decision. They were stronger—in an earlier period we were stronger, I think, in a relative sense, and our capacity vis-a-vis the Soviets in the nuclear area has been declining. I don't think that is necessarily a bad thing.

Now, the other half of it, then, is one on which I have an entirely different view about whether the world is going to be pleasanter. I think it is going to be unpleasanter. In the third world, outside of the North American Western European countries, and Japan, the developed industrial countries, with largely popular government—and I am not talking about the Communist bloc now—I think that there will be more, not less, violence. It will certainly continue, and probably get worse. What I doubt is our capacity to do anything about it. And I simply doubt the relevance of what Mr. Hoag has described as our commitments to many of these things. Do we have a commitment with our lives to Pakistan? What is the nature of it? What relation does that commitment have to Pakistani behavior in relation to the Indians, the Chinese Peoples Republic, and so on?

We see a situation now between Nigeria and Biafra in which we are agonized spectators. But I think we properly ask ourselves, can we be more than agonized spectators?

My feeling, and what I wrote in the paper, is that these things would increase, not that the world would get nice and peaceable but that we should and we will ask ourselves more sharply than we have in the past the question, what can we do with mobile military force if we have it? Do we want to?

Thus, the view that underlies my belief that we can go from two-plus contingencies to two-minus contingencies, or one and a half contingencies, or however we describe it, is not a view that the world will be peaceable, but one that our conventional force capability, no matter how efficient and effective, will not be able to contribute to making it more peaceful in many situations.

And I think that is the heart of any commitment.

Chairman PROXMIRE. My time is up.

Congressman Conable?

Representative CONABLE. I have no further questions. But I think your comments, Mr. Kaysen, point out one of the big difficulties we are going to have in this area of defense priorities. We have a tendency to look at national defense as though it existed in a changeless vacuum, to assume that what we do is the only thing that is of any significance in the world. Defense, by its nature is a response to an offense or a potential offense.

The circumstances are constantly changing, and our assumptions constantly do have to be tested. And the fact that so many of our assumptions are beyond our control doesn't mean that we shouldn't have this kind of investigation and this kind of dialog. I do think that your comments point up the difficulty we are going to have in coming to concrete conclusions when we try to function outside the first area of your inquiry, which certainly is a legitimate area of inquiry for any economic panel.

Chairman PROXMIRE. Congressman Moorhead?

Representative MOORHEAD. Thank you, Mr. Chairman.

Mr. Kaufmann, I notice in both of the budgets that you present, the Benson budget and the *CQ* budget, in both of them there was a reduction in the number of aircraft carriers. Mr. Schultze when he was before this committee and was asked by Senator Symington where he would start examining the budget, he said he would start examining the question of aircraft carriers. Based on your experience in the Defense Department, what do you think of the cost effectiveness of our 15 attack carrier force?

Mr. KAUFMANN. I am happy to say, sir, that I never really worked on Naval forces in my periodic visits to the Pentagon. I would only say that there are various alternative ways of operating the attack carrier force to the way in which we now operate these task forces. And although I would be very hesitant myself to say what is the preferred way, I think there are three alternative ways. One way, for example, is simply to regard aircraft carriers as bases. Now, we have a great many bases, some of them fixed, and some of them floating. It is not our tend-

ency worldwide to maintain a full complement of aircraft on all these bases. That, however, is what we do with our aircraft carriers. One alternative to the present mode of operation would be to consider them as bases, which did not have to be inhabited at all times, and which would be perhaps on station and to which you could fly aircraft in case of particular emergencies. That in itself would result in a major saving over the way in which we now operate carrier task forces. An alternative which was suggested in the Congressional Quarterly is to argue that the primary utility of the attack carriers is in providing a short term air cover in situations where we have not yet been able to establish land bases from which to operate.

Representative MOORHEAD. This is the SURGE.

Mr. KAUFMANN. Yes, sir. And I think in both the *Congressional Quarterly* and Mr. Benson's article the assumption has been made that the SURGE principle would be the preferred way of operating, and that that would provide a base for reducing the total carrier force. I am not sufficiently qualified to select among these alternatives, but I think they are alternatives which deserve the most serious consideration and scrutiny.

Representative MOORHEAD. Dr. Kaysen, I think your two-page summation is extraordinary. You get a great deal of this issue in such a very brief number of pages. I was also intrigued at the way you approach the first, second, and third steps.

Logically you should start with three, two and one, as you said. But politically you are right. We have first got to acquaint the people with the fact that there have been mistakes in procurement, and then we can get to the stage where we examine whether maybe some of the systems we have procured we haven't needed, and then third, we examine our basic foreign commitments and contingency assumptions which are the major factors that drive the military budget.

There are statements that I think clearly bring out the difference between you and Mr. Hoag on the third point, the so-called two plus contingencies. And at one point you opt for no continuing ground force commitment in Asia. Mr. Hoag takes that to mean that we will revoke our commitments to Thailand and South Korea. In your long paper you make it clear, I think, that you do not intend that so far as South Korea is concerned. So that I think the issue really comes down to Thailand, or at least the differences are more sharply focused on Thailand. At the present time we do have troops—that is, at least we have support troops—in Thailand.

Is the difference mainly that you would ultimately remove these troops, after Vietnam?

And Mr. Hoag, would you keep those troops in Thailand?

Is that the difference?

Mr. HOAG. I think there is no difference about peacetime presence, because I think the Thais would prefer that we have minimal peacetime presence. They have insisted that those bases are Thai bases which are currently being used by American forces relating to Vietnam. They, like all the rest of us, hope for an early end to the Vietnamese fighting. And they would like to see an exodus of most of those forces.

The question at issue is whether we stand committed in the event of overt aggression, not subversion. We are currently following what I think is a very sound policy, which is saying, they have a problem of subversion, and not a single American soldier shall be involved in a combat operation involving it while the Thais handle that problem.

But the Thais, given the fragility of SEATO, given the developments with respect to Pakistan and France, sought and got a supplemental bilateral understanding in 1962 from Secretary Rusk. That at the SEATO meeting was reaffirmed by Secretary of State Rogers on May 20 of this year. And now there is a very great difference, I want to suggest, in foreign policy between a statement which is in Dr. Kaysen's chapter, which says that we will only buy a capability that is not for a major contingency in Southeast Asia, we won't be able to meet it; there is a difference between that and saying that we shall not apply a two plus policy, given the low joint probability of two wars, and putting greater reliance upon a mobilization base. And I do not want to see that pledge repudiated. And therefore I want the guidance of our military planners to say, yet, this is a contingency for which divisions and tactical air wings are required.

Representative MOORHEAD. Let me see if I understand one point. The one thing that is stressed in the positive statement is—simultaneous or concurrent contingencies—are you suggesting that we can downgrade that word so that we don't have to anticipate that the Chinese and the Russians would collaborate and both attack at the same time on two fronts.

Mr. HOAG. There are lots of ways of handling the timeliness of response, which is one reason why I am so critical, for example, of the blanket rejection of the FDL concept. It is silly to buy very expensive forces and then refuse to buy the inexpensive adjunct which makes them timely. And that is my real reason for rejection of that one item in Mr. Benson's program.

Representative MOORHEAD. Mr. Kaysen.

Mr. KAYSEN. I think Mr. Hoag has said a good bit of this. One thing is to emphasize the separateness of the political commitments and the budget of troops. If you think of the political commitment as primarily a factor in a deterrent calculus, then the political commitment is related not to the specific troops budgeted for the contingency plan, or the plan in the Chiefs' desk drawer—we may make the happy assumption that all our plans are known. The political commitment and its values is related in some sense to the overall strength of the United States.

Those forces which we would maintain for general reserve purposes and specifically for NATO reserve purposes are in the aggregate strong enough to meet the political commitments that I think are appropriate. I recognize that there are some detailed problems here, when training may be different and there is equipment different for those forces that are going to be sent to NATO and those that might be sent to land warfare in Southeast Asia, and so on. I don't think it is appropriate to try to nail down the details in this discussion.

On this, I think the differences between Mr. Hoag's view and mine are rather matters of degree and emphasis, and we could have a discussion of how cheaply you should or shouldn't, and all that.

I have a quite different point, though, about our political commitment to the Thais. I am not suggesting—and I am sufficiently removed from any official responsibility whatsoever, so that what I say now I think is innocuous—I am not suggesting that the Secretary of State or the President get up tomorrow and say to the Thais, we no longer are committed to you, and if the Chinese decide to come across the border in force, so long, it was nice knowing you. I am suggesting that in the years ahead the Thais will be at least as well off and probably better off, and we will certainly be better off, if the Thais are relying on their own political relations with the Chinese as a major factor in deterrence and relying on their client relationship with us a great deal less or not at all.

Let me put the question in sharp and extreme form. If Thailand were turned into Cambodia tomorrow—and I don't think that is at all likely in fact, tomorrow it is impossible—but if Thailand were turned into Cambodia the day after tomorrow, in what sense would the national interests of the United States be impaired? That is the question between Mr. Hoag and myself, as I understand it, which really goes deep, and on which there is a real difference. I think the word "commitments" to Mr. Hoag still rings with the flavor of the two-person, zero-sum game between the Soviet Union and the United States in a world divided between us. Our loss is their gain; their gain is our loss. I think the world is very different now and has been very different for a while; and it is getting even more different more rapidly. Therefore, I think commitment in that sense may not be what we want at all.

Now, I have a different script to recite—and you may not want to hear it—for South Korea, and a still different one for Taiwan. But I think it is a list of those discussions which are basic. And to me the only commitment we have which rings with the old sense in its political content is that to Western Europe. But I think—and that is a matter on which I think all those of us here as witnesses agree—the military content of that has come to be quite different than it once was.

Representative MOORHEAD. My time has expired.

Chairman PROXMIRE. I just have a few brief questions.

And I apologize for retaining you gentlemen so late, but this is such an excellent panel, and the issue is so vital, and I think these questions are important enough.

Representative MOORHEAD. Mr. Chairman, may I just make an apology, I am already late for an appointment, so I am going to have to leave, but I do so regretfully, because I have found this discussion extremely interesting and helpful.

Thank you.

Chairman PROXMIRE. Tuesday, former Budget Director Charles Schultze made what I consider to be a rather startling observation with regard to the arms race and the expansion of defense expenditures. He said that viewed from the Soviet Union, the United States appears

to be acquiring a first-strike capability because putting MIRV's with hard target killing capabilities on Poseidon alone will equip us with 4,000 to 5,000 missile destroying warheads.

Mr. Schultz further pointed out that we announced our intention to build a thin ABM at great cost in response to the 200 Soviet SS-9 missiles which may be expanded and MIRVed into 800 to 1000 hard target warheads. The implication is that the Soviets will similarly react to the MIRVing of our ICBM's.

I wonder if each of you could respond to this analysis and give us an opinion on the probable Soviet-United States action and reaction to their belief that we are acquiring a first-strike capability.

Dr. Hoag.

Mr. HOAG. In reading Dr. Schultze's statement I was utterly appalled for him to use the Poseidon comparison side by side with SS-9. The Soviet Union employed mass boosters, now that the official estimates have been divulged, that are capable of carrying three 5-megaton warheads. Throughout our programs we have taken a different route. It is a route of miniaturization. A Poseidon warhead is a tiny thing. I suggest that what the Soviet Union will do, in order to reduce its vulnerability to Poseidon, will be a very different thing from what we will do. It has already been suggested by Dr. Foster that what we will be doing is a combination with respect to the land component of, say, a hard rock silo, and the Safeguard system. It may well be true with respect to the Soviet Union that they are content with the levels of hardness of the silo they already have.

In any even, they will look at the characteristics of Poseidon when they decide. And they have alternatives.

Chairman PROXMIRE. May I interrupt.

As I understand it, we are testing the Minuteman III. If we do it I take it the reaction would be the same?

Mr. HOAG. Well, we have phased out of the force the large boosters which we once had, the Atlas, and so forth, and the 54 remaining Titans are scheduled to be phased out. The Soviet Union, for a variety of historical reasons, went a very different route. This route gives them a capacity to put very large throw weights into space. This gives us as a defender a very difficult problem—not an insuperable problem. It is one that our planners have been working on for years, and they now know how to answer it. And if we act prudently now it will be answered in good time, and at no time will we be vulnerable to a Soviet first strike. It is only if we fail to act that we will make ourselves vulnerable.

Chairman PROXMIRE. Dr. Kaysen?

Mr. KAYSEN. My old colleague Mac Hoag always comes back and answers your questions in terms of what might vulgarly be called technological jazz. I don't think he answered the question. Let me answer the question, and then comment, if I may, on what he said.

I think there is no doubt that the Soviets have always perceived us as striving for something near a first-strike capability. They have vacillated in how strongly they have felt this perception. But when Mr. McNamara talked as he did about damage limiting capability, I am sure they said to themselves, what does that mean? The best way to limit damage of course is to eliminate the enemy's striking forces.

So that I would say that the question of whether we are perceived as striving for a first-strike capability has been a real question for some time, and that any change in the size and composition of our forces proposed—especially the kinds now—raises this question anew.

Now, Mr. Hoag could point out the technical difficulties of this view. I would observe that kill power is like the cube root of distance. So that our 1-plus megaton Poseidon warheads might well look to the Soviets like 8 megatons on their view of our accuracy and their accuracy.

Mac Hoag is making a calculation, and I can make a calculation. I think we shouldn't have this kind of discussion, because unless we have it in great detail—

Mr. HOAG. We shouldn't use such terrible numbers.

Mr. KAYSEN. Unless we have it in great detail it won't be accurate. But I think the answer to your question is, clearly when the power which has by far the larger forces, and has had historically the larger forces, proposes a fairly sharp step up in its warhead numbers, it wouldn't be surprising if some people in the Soviet Union perceived this as reaching for a first strike.

Chairman PROXMIRE. Mr. Kaufmann?

Mr. KAUFMANN. I find Mr. Schultze's numbers as to potential reentry vehicles entirely plausible for the mid-1970's. One can talk about 4,000 to 5,000 reentry vehicles. I think the big problem that confronts both the Soviet Union and us is not MIRV's independently, although they are a terribly important component of this, but a combination of MIRV's, antiballistic missile defenses, and conceivably various anti-submarine warfare techniques, because MIRV's by themselves will not cope with the sea launched ballistic missile capability. And at a rough guess, we maintain roughly 328 missiles on station at sea at all times. And they are simply not targetable by the MIRV's. And therefore it is, I think, not just the MIRV's, although I certainly don't want to minimize the importance of the MIRV's, which are presumably, if the technology proves out, likely to be extraordinarily effective against a land based system. But it is the combination of MIRV's, antiballistic missile defenses. And possibly some antisubmarine warfare capability, indeed, if developed concurrently would begin to threaten a major first strike capability.

Chairman PROXMIRE. Mr. Hoag, in projecting your non-Vietnam military spending for 1972 do you foresee a budget for \$72 billion, non-Vietnam spending? This is over \$12 billion more than the non-Vietnam budget for 1970 recommended in the most recent budget document. In making your projection you seem to imply that all of the deferred demand currently approved by the Defense Department, namely, Minuteman II and III, Poseidon, nuclear powered aircraft carriers, and the ABM, are all valid demands and should be completely satisfied as an increment to the defense budget. Is this a fair characterization of your position?

Mr. HOAG. No, sir. That part of it, I am afraid, we can't put in the public record. With respect to several of the most prominent contenders for large expenditures in the future, I excluded those. I did so on the basic extrapolation.

Chairman PROXMIRE. What was that? I missed that, you excluded that?

Mr. HOAG. I am afraid I must retreat—and I apologize for this, Senator—to the phrase in my statement. I tried to incorporate a “McNamara-like” philosophy with respect to approval and rejection of several of the prominent proposals then up for program approval, but not yet approved.

In doing so I therefore disapproved, and did not put into this budget, several major items that are favored by the Joint Chiefs of Staff.

Chairman PROXMIRE. You see, what I did, I took it directly from Mr. Kaufmann. He said:

Hoag, on the other hand, seems to imply that all this deferred demand is valid and should be satisfied in toto as an increment of the defense budget.

Mr. HOAG. One example which came up earlier was the example which was alluded to as you raised the AWACS issue. I had the F-106 in, and I did not have the F-12.

Chairman PROXMIRE. In any event, you feel that because of the classified nature of this material—

Mr. HOAG. And also because of its total unofficial and unauthorized character. But this first exercise was in a sense a mechanical projection, in which I was literally trying to project a fiscal year 1965 philosophy mechanically forward before we considered alternatives.

Chairman PROXMIRE. What you are doing really is taking what you call a McNamara approach and projecting it mechanically forward. My question is, do you feel in your judgment that this is necessary to our national security?

Mr. HOAG. I think it is possible, as I have indicated in my statement, that there are two routes that are open and very responsible routes to bring this budget down. The first is that there are areas for improved cost-effectiveness, as I have tried to indicate. And the second was that I thought it entirely compatible with our existing commitments to move toward a somewhat greater emphasis upon a mobilization base, and therefore upon reserve forces, that would be less expensive than the ready forces they would supplant.

Chairman PROXMIRE. Dr. Kaufmann, in your statement, you claim that we could buy the flexibility of fiscal year 1965 at around \$60 billion in 1972, at 1972 prices. I find this a rather encouraging assertion and rather closely in line with the projection of Dr. Kaysen. Would you describe for me the basis of this assertion and how you see it in relationship to Dr. Kaysen and Dr. Hoag's projections?

Mr. KAUFMANN. It is based on two different calculations, sir. First, what I did was to start subtracting from the current budget, the fiscal year 1970 budget, certain items such as the war in Vietnam, which I priced at about \$26 billion. And I believe that is an official figure which appears in the budget. Then I considered what things might be given up which may be of marginal utility. And then I asked what things with these savings it might be possible to buy and allow for inflation and pay increases.

Secondly, I looked at the fiscal year 1965 budget. And the figures are available to you. And I think it is noteworthy that in fiscal year 1965, despite the fact that this was consuming a lower percentage of the gross national product than previous budgets, which I find not disturbing, there is very ample funding for a whole range of programs in the fiscal year 1965 budget.

And I think those figures are before you.

And when I look back at what we were doing, and what we were able to do in fiscal year 1965, within a constraint of less than \$51 billion, which included conducting a small war in Vietnam at the time, creating still a very substantial second strike and strategic nuclear capability, and continuing to expand and modernize our general purpose forces, I find it hard to believe on those two tests that, given a fixed set of assumptions about commitments contingencies, and so forth, I find it difficult to believe that we could not get back into something of that character in the post-Vietnam period, particularly considering that many of our forces are undergoing modernization in the heat of the war in Vietnam.

Chairman PROXMIRE. If defense planning were now your sole responsibility would you strive to meet this \$60 billion budget constraint in 1972? We have to make that kind of a decision in the Congress, and I am just asking if you suggest it.

Mr. KAUFMANN. What caused me to hesitate is my own very strong feeling that some of the critical parameters in determining this budget are matters which even if I had the exalted position of the Secretary of Defense I would be most reluctant to try and decide for myself, namely, these really tremendous issues.

Chairman PROXMIRE. If you had the unexalted position of a U.S. Senator you would have to decide for yourself, you would have to bite the bullet, you would have to vote some appropriations. I am a member of the Appropriations Committee and I vote on that committee as a member. And all the Senators have to vote. And we have to decide. And you have a far more comprehensive background in this area than the majority of the members of Congress have.

Mr. KAUFMANN. If we are prepared to hold commitments constant, if we still accept the two plus contingency planning, which I think has not been fully articulated and understood here, I would say, although I am not sure, despite my paper calculations, I could meet it. I would say that the \$60 billion target would be extraordinarily interesting one to shoot at.

Chairman PROXMIRE. You discuss the possibility of a rigid budget ceiling imposed on the Department of Defense. I greatly appreciate your judgment on the effectiveness of such a ceiling in holding defense expenditures down. As you are well aware, it is very difficult for Congress to do comprehensive military planning.

On the other hand, given now that we do not do it, the budget seems to rise and rise inevitably. Given the existing institutions with which we must work, would you see an absolute budget ceiling as one possible way of keeping control over the defense budget?

Mr. KAUFMANN. To a degree, although I suppose it always depends—

Chairman PROXMIRE. We did that last year, we exempted Vietnam, but we put a ceiling on defense expenditures except for Vietnam.

Mr. KAUFMANN. I personally have no strong objection to budget ceilings. However, I think budget ceilings in isolation can be very dangerous, because I think within those ceilings very serious distortions in the allocation of the resources can take place unless there is extremely careful and systematic analysis within that ceiling of what are the preferred ways of allocating those resources. And I think that has to go hand in hand with any kind of budget ceiling.

Chairman PROXMIRE. Just one other question. You also say that there may well be sectors of nonnuclear general purpose forces where capabilities have been maintained after the original logic for them has expired. What component of our general purpose forces would you cite as prime candidates for careful scrutiny and perhaps phasing out or reduction?

Mr. KAUFMANN. I would say two of the major areas—we come back again to the attack carrier forces and the antisubmarine warfare forces which have been characterized on the record by Mr. McNamara as of marginal value. I cite only those. I would quarrel with Dr. Hoag somewhat with his prescription for the Army. But I also think that there are very serious questions to be raised about manpower utilization in the Army. Those are only a few—

Chairman PROXMIRE. The staff won't let me off the hook on this. I have to ask one more question of Dr. Hoag.

What exactly do you mean when you say that we need more units in Europe, "but more austere ones?" You point out that NATO spends far more money than the Warsaw Pact and yet is inferior in conventional strength. How do you explain this apparent inefficiency in the use of NATO forces? Where exactly are the dollars being wasted? How much can you estimate the cost reductions could be?

Mr. HOAG. The most explicit answer I think, sir, is to say that out of a lesser number of men in division forces, the Warsaw Pact has 46 line divisions currently. That would be prior to the Czechoslovakian reinforcement, and measured as against NATO's 28 $\frac{2}{3}$. Now one of the NATO divisions, I would say, is better than one of theirs. But the problem is that 28 $\frac{2}{3}$ divisions are supposed to be stretched over a total frontier, given a forward strategy, which is no longer back at the Rhine but far forward of it.

Chairman PROXMIRE. Is this merely because of the difference between supply and support ratio to combat in the NATO divisions on the one hand, and the supply and support issue on the other?

In Vietnam I have heard that it is a ratio of 10 or 12 to 1, supply and support to combat, whereas the Russians have about 3 to 1. Right here we have a conspicuous difference between an austere and a luxury operation.

Mr. HOAG. Yes. I might point out here—

Chairman PROXMIRE. Would you say that this is a valid comparison and criticism?

Mr. HOAG. I think we do have, in the jargon, a longer and heavier logistic tail; yes, sir. But I think fundamentally it is more a question of—this gets back to your earlier question, that some of what has happened at something we call modernization may have been more deluxe than it needed to be. And such items as the very elaborate provisions for mobility within one of our divisions—for example, the number of helicopters—is far larger than it is within the Soviet division. This is a legitimate item to question. But this is a matter so complex that I want the true professionals, the soldiers, to do it. I am not giving a prescription that the Soviets are a model of cost-effectiveness, I am using it as a device to get our real professionals to put their noses to the grindstone.

Chairman PROXMIRE. I thank all of you gentlemen very much.

I think we have had an enlightening session. You have made a fine record. And I am sure it will be of great interest to all Members of Congress.

Tomorrow the committee will hear the former Secretary of the Interior Stewart Udall and the former White House Assistant, Joe Califano, and Mr. Robert Moot, the Assistant Secretary of Defense, Controller, at 10 o'clock in this room.

Thank you very much.

We stand in recess until that time.

(Whereupon, at 12:55 p.m. the committee was adjourned, to reconvene at 10 a.m., Friday, June 6, 1969.)

THE MILITARY BUDGET AND NATIONAL ECONOMIC PRIORITIES

FRIDAY, JUNE 6, 1969

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON ECONOMY IN GOVERNMENT,
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The Subcommittee on Economy in Government met, pursuant to recess, at 10 a.m., in room G-308 (auditorium), New Senate Office Building, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senator Proxmire; and Representatives Moorhead and Conable.

Also present: John R. Stark, executive director; Economists Richard Kaufman and Robert H. Haveman; and Douglas C. Frechtling, minority economist.

Chairman PROXMIRE. The subcommittee will come to order.

This morning we will shift focus somewhat by directing our attention to a discussion of domestic environmental and social needs in an effort to compare and evaluate the relative priorities of military and civilian programs.

Although the now familiar litany of domestic problem areas—housing, pollution, education, poverty, and many others—is easily repeated, what is not so well known is the nature of these problems, their urgency, and their relationship to national security.

The question we might ask is: Can a nation which fails to solve the most pressing economic problems of its own people remain strong and viable, no matter how much it spends on military programs?

We will hear first from two distinguished former public servants. First, Stewart Udall was Secretary of Interior under Presidents Kennedy and Johnson for 8 years. Previously he had served in World War II as an enlisted gunner, and flew combat missions on B-24 Liberator bombers. He is a graduate of the University of Arizona, where he received his B.A. and L.L.B. degrees. He has written two books, "The Quiet Crisis" (1963), and "1976: Agenda for Tomorrow" (1968). Currently he is chairman of the Overview Group, an international environmental consulting organization.

I might add that Mr. Udall came to Congress as a traditional conservationist and successfully ushered the traditional concept of conservationists throughout the country are much more sensitive to, Stewart Udall, means conservation of human and social values, as well

as conservation of the physical environment. As a result of his efforts, conservationists throughout the country are much more sensitive to and involved in, the problems of urban affairs.

In Mr. Udall's recent book, he made the incisive observation that "you cannot save the land unless you save the people." In many ways, that remark describes the reason we are here today.

We will also hear this morning from Joseph A. Califano, Jr. Mr. Califano most recently was Special Assistant to the President, from 1965 to 1969. Prior to that he served as Special Assistant to the General Counsel of the Department of Defense in 1961, Special Assistant to the Secretary of the Army in 1962, General Counsel of the Army in 1963, and Special Assistant to the Secretary and Deputy Secretary of Defense in 1964.

One of Mr. Califano's many important assignments includes Department of Defense representative on the President's Committee on the Economic Impact of Defense and Disarmament. He is presently a member of the Washington law firm of Arnold & Porter.

Following the first two witnesses we will hear from the Honorable Robert C. Moot, Assistant Secretary of Defense (Comptroller). Mr. Moot was formerly the Administrator of the Small Business Administration.

Mr. Udall, we will begin with your statement and you may proceed in any way you wish.

STATEMENT OF STEWART UDALL, FORMER SECRETARY OF THE INTERIOR

Mr. UDALL. Thank you, Mr. Chairman.

Let me apologize both to the committee and the press for not having a prepared statement. I was asked late to appear here, as you know. Although I am not as busy as I once was, I don't have the staff I once had either. Therefore, I would like to work from notes, if I may. I will try to be brief and hit some highlights.

I am delighted, Mr. Chairman, to appear before this committee. I am one who believes that these hearings are perhaps the most vital thing that has taken place this year in the Congress. I believe very deeply, as a result of my experience in Congress and the Government, that there is a lot of unrest in the country, a lot of ferment, some of it very constructive and very healthy, concerning the national values, national priorities. I believe that we may be very well on the edge of an era in which we develop new national goals, new aims, and new values.

I suspect, however, that we can't do that without questioning the working of existing institutions and the methods whereby we have made our basic governmental decisions in the past.

I want to attempt to be an amateur historian here for a few minutes. I tend to look at this problem that the committee is focusing on in the 15 years perspective since the time I came to Washington as a freshman Congressman in 1955; and I served here under three Presidents. Different parties have been in power. I think what we have de-

veloped—and I don't want to strike any partisan note at all here today—is a system of decisionmaking, which is what we are really questioning.

I noticed President Nixon saw fit to say that there was open season on the Armed Forces. I don't regard these hearings and the type of questions that are being asked as a questioning of the basic motivation or the basic integrity of our military people. They are doing their job, and they present their arguments as they should.

But I believe that this committee is searching for—I think what the country really needs, is to develop a new system of decisionmaking, because it is very clear to me that we have been operating in two almost watertight compartments. We have been making our military decisions here with a certain set of priorities, and over here on the domestic side we have had an entirely different set of priorities. And we have pretended over the years—the cliché has been in Washington until very recently that we can do both, and that there was no conflict. And I think that we need very desperately in this country now a new system of decisionmaking, a new whole approach to the making of national policy, in which the very concept of national security, which is applied only to the military aspect, would be applied to the whole range of decisions that affect the future of American life.

Now, this committee will understand, I am sure, that I am biased, I am a person who is biased on the domestic side. I am biased when it comes to doing things on earth as against on the moon, for example. I am biased in terms of people as against technology and the proliferation of machines that may provide economic benefits. I am interested in what those things do to the life ability of citizens, to the lives of people.

But this period of the last 15 years—or you can take the last 25, since the end of World War II—has been an extraordinary period in our history, in terms of economic growth, the productivity of American industry, in terms of the gross national product, the functioning of the economy generally, and in terms of technology and mechanization, and in terms of the military weapons systems that we have developed. Our space program is kind of a great climax of technological skill. These have been great accomplishments, and I don't think for a moment that we should diminish their importance to the country. Yet the thing that strikes me, from where I have been sitting, and as I see the country, is that during this same period of time our cities have been decaying, their livability has been eroding. I was with a distinguished engineer from Sweden the other day, a man who has traveled widely, who said, "I am sorry to have to say it, but your country is the dirtiest country on the face of the earth."

Our cities, the great cities which should be the ornaments of the country, are sources today of disorder; and there is a cancer eating at them as a result of neglect.

We have also during this same period very seriously neglected our human relations. And in this last 15-year period—I came here just after the Brown versus Board of Education decision, a historic decision in the Supreme Court, and when we look back at the slow pace of

implementing that decision, of changing our basic society, and I think we understand why there is so much unrest and civil disorder and strife in our country today.

I must say, speaking of the American land, that this same period in which we were doing such wonders with technology, and our economy has been growing, and our individual incomes have been rising, has without doubt been that period in our country's history in which there has been the greatest destruction of environmental values in the history of the Nation. Through dumping our wastes in the rivers and pouring our solid wastes on the land, and through all manner of blight, this has been a period, right in the middle of great prosperity, we have done an enormous damage to our country.

The other thing that strikes me is that it seems, looking back over these years, that the things we wanted to do to improve the life of people in this country, to improve our educational system, that we couldn't do unless we got the defense banner out. One of the first acts passed, one of the major bills of the Eisenhower administration, the first session of Congress when I came, was the highway program. But we said it was a "defense highway act." Then after struggling for 10 years to do something to aid education—and I was on the Education Committee—after Sputnik we passed the first aid to education bill. What did we do? We called it the Defense Education Act. It was almost as if we were apologizing, that if we didn't have some rationale of relatedness to the cold war that we couldn't logically do this for our own people.

And so it has gone. This is the reason that I believe these hearings are most vital to our country today, because at the very time that we were barreling ahead to new successes in improving our individual lives, our individual prosperity, there was tremendous public squalor developing in this country.

This has been a result, it seems to me, of our neglect of the domestic side, of some very basic mistakes and misjudgments. Certainly we grossly misjudged the magnitude and the urgency of the racial crisis in this country. How silly it seems, when I look back at 1957, when we passed the first voting rights bill, said to ourselves, if you give people the right to vote, then the other problems will solve themselves. And we can see today how shallow this was as a solution, and how badly we misjudged the patience of the blacks, of the impoverished people in this country.

We have also ignored the degradation of cities. We in Washington, it seems to me, over these years have looked upon the cities of our country—and I am not talking just about the largest cities, as if they were a local problem. They were not a problem that Congress had to be concerned with, or that Presidents had to give primary attention to. Here again we find that very policy that Congress adopted encouraged the decay of cities. FHA encouraged the flight to the suburbs. Our welfare program sucked people out of the rural areas and into the central cities. And it was almost as though we had planned the decay and the erosion of the livability of our cities.

We also barreled ahead operating on the assumption that pollution of the country was an inevitable incident of the kind of industrial progress that we were engaged in. That has been a basic assumption really for a hundred years in this country, that this was part of the price of progress, in other words, that a rich, successful industrialized Nation is a dirty Nation, is an unclean country. It is only recently, really in the 1960's, that we began to question and to discard this fallacy.

So there has been an enormous work of despoilation when we look at the American environment, whether we start in the core of the cities or begin in the countryside. We have reached the point where, as a nation that has pride and has capacity, we ought to ask ourselves questions about national priorities, and about our goals of performance.

So we asked them the question, why has this been, and why have we had this distortion of priorities, other than the fact that we have set our system up so that our decision making was compartmentalized?

Well, of course there has been—and I won't discuss it at length, it has been at the heart of these hearings—the cold war mentality, the overpowering priorities that we have given to real and supposed defense needs. There has been a tendency too to judge the American advance by gross national product, by the stock market, by automobile production, rather than those factors that determine the worth of life by what it offers the individual, what kind of cities we have for people to live in, what kind of schools we have for children to attend.

Above all, we have gotten into this fix, I believe, because of a lack of any real discussion of national purpose and national goals and priorities. I think one of the best suggestions that has been made to this committee was Charles Schultze's last recommendation, that we need an institution—I have called for this in effect in my last book—a congressional institution that would each year have a national assessment of what our progress has been, of what our goals have been.

The committee system in the Congress has great strength, Mr. Chairman. We know its strength. It also has one great and perhaps fatal flaw; and that is that it tends to fragmentize, it tends to take individual Congressmen and Senators and to make them specialists, and then there is no overview. There is no attempt to take a broad look at how all of these different programs fit into the larger picture.

The result is that we create what I increasingly tend to think of as juggernauts. We have a foreign program juggernaut, and it operates on its own momentum. And there is never any attempt to relate it to overall objectives, or to review it, it is simply handled by a small group of committees who have a very narrow and a very selfish interest usually in continuing it. We have a highway juggernaut, and it moves ahead with its own momentum, and with its own committee, supporting everything that it does.

We have, of course, a military juggernaut, which is the biggest one of all, and it moves forward with its own momentum and its own priorities.

If there is anything that I believe we need, it is for this hearing to be the beginning of something, for it to open the door to a realization that the Congress and the country needs an overview of our overall priorities, and our overall performances to the country. And I think out of this will come a new definition of national security, that our national security is as vitally related to the health and vigor of urban life as it is to whether we have 12 or 13 or 14 attack carriers for our Navy. I believe out of this discussion will come a whole new set of standards, perhaps, for judging our national performance.

So I see these hearings as a search for a new approach to decision-making, to breaking down these barriers that have kept decisionmaking in separate compartments. And I think if we do this we will find that we are able to develop a new set of priorities, that aims which have been expressed that are now vitally important will get a hearing, and that we will indeed, I would hope, see within the executive branch of the Government new methods and new approaches that are used. Because as I look at these last 15 years—we have had three Presidents, two different parties have been in power—and I don't think we should criticize the Presidents or the Joint Chiefs of Staff or other people—we have had the decisions on national goals and national priorities made out according to a certain set of ground rules, a certain set of assumptions. And the game has been played according to these ground rules.

I think former Budget Director Charles Schultze's testimony was most illuminating on this point. I think the question really is now whether we don't need a new set of ground rules and a new way of making decisions both within the executive and the Congress and within the country. Because the one thing that the Congress always does at its best is to serve as a forum where the sentiments in the Nation can be heard and where new ideas can find a home.

So I believe, Mr. Chairman, that Congress must bear a heavy responsibility because of its failure to provide the kind of forum for these decisions to be made.

There has been too much cozy supervision of what I have called the juggernauts. One of the things that struck me, going from the Congress down to the executive, when I looked back at the Congress, even with my own little department, was how pathetically understaffed the Congress was. When you get to the question of military budgets, you have the whole Pentagon. When you know the resources that any Secretary of a department can call upon to gather facts, information, arguments, to prepare charts and graphs, to tell his story, and when I looked up at the Hill and see how pathetically unprepared the Congress was, it always amazed me that Congress didn't realize what an uneven contest it was. It was almost as though there were five clerks, however good they might be, against the whole Pentagon on the analysis of military programs, with all the computers and all the experts down there.

Yet this is the way that we have carried out our decisionmaking. And it's no wonder, really, under these circumstances that the Congress acted as a rubberstamp. I don't believe I ever voted against a

defense appropriation bill. It was not only sort of unpatriotic, and subject to charges by your opponent in the next campaign, but I didn't have any reasons, I never had any reasons for questioning—seriously questioning—the decisions that have been made. There was a sacrosanctness, a sacred cow aura about the whole business. We simply did it because men who knew and who had the information had made these decisions.

I remember once one of the very venerable and very senior Members of the Congress told me, one of those who was supposed to supervise CIA—and I tell the story because it is so enormously revealing of the attitude that prevailed in the Congress—he once said to me, “Well, I just listen to what they tell us about what they are doing. I never ask any questions, because if I did, then I would be responsible.”

Well, this to a great degree has been the attitude of the past. And I think this is one of the reasons we find ourselves in the position that we are today, with the type of questions that are being asked today.

But the larger issue—and I am getting to the conclusion here now—and I believe again former Director Schultze presented it—is, can we develop a new system of decisionmaking in which national priorities are formed, not in the two compartment system of the past, but by laying domestic needs along side military needs, and doing the kind of serious scrutiny in depth with the country looking over the shoulder of the Congress and of the executive in making these basic decisions.

I believe in the 1970's and beyond what we face is a question of a military sufficiency, not of having, as we have had, I believe in the past, an excess of military capacity, but of sufficiency, however we may define that from time to time, and a balancing of that sufficiency along side an adequate domestic performance to solve the problems of our people.

I see enormous distortions as I look about, and as I look at the American environment. The fact that we can assemble the talent and the tools to build military weapons systems—what we have done with the space program, is really an extraordinary achievement from a technological point of view. And we can't, though we have been arguing among ourselves about it for 25 years, we can't even produce low-cost housing. The fact that we sit, intoxicated as we are with mobility in this country, and actually accept 50,000 deaths a year from automobile fatalities—this ought to be unacceptable in a country as gifted as ours, with the kind of engineering that we are capable of. Mr. Chairman, we are spending roughly \$8 billion this year, the figure I have, at least, on research and development in defense and space. Yet on air pollution controls, research and development, water pollution, solid waste disposal, a problem that has many of our cities by the throat, in these areas we are spending pennies literally. We have to fight usually for that money. If we could just reorient our technology and use our talent and skill to help reshape and rebuild our cities, to provide low-cost housing, to enable us to conquer the worst forms of pollution and blight that have been destroying and diminishing this

country—this is the sort of thing that I believe we need to do in the 1970's.

The fact again, talking about priorities—not military against domestic, because there are other ways of measuring it—we take great pride in our system of higher education in this country. And we have done, considering the money we have spent, I think a fantastic job. But we spend more money on tobacco than all levels of government spends on higher education today. I think we ought to stop and smoke that one for a moment.

So it does seem to me that much of the unrest that I sense at least among the students and the young people—I have had the experience of going to the campuses and lecturing and visiting in recent weeks—is that they are questioning—and I believe that is where they are rendering a real service to the country—they are questioning our value judgments that have led us to this point that we find ourselves in. They are questioning seriously the order of priorities that have governed in the past.

And so I would like to see us, as part of the reconsideration of our national priorities on a total scale—once the moon mission is completed next month, why not have a budget to save this earth and this country? It has always amazed me, I tried to get the figure yesterday to come up here—the total amount of money that the Federal Government and State governments have spent during all the decade of the 1960's to try and save some of the beauty of this country for the future.

I am talking about what we have spent on national parks, what we have spent on national seashore, and what the States have spent on urban open space, on State park systems.

The total amount of money roughly, as near as I can get it, is something on the order of a billion dollars in an entire decade. And I can say to you, because this is a field that I do know, that if you would give me \$2 billion a year for 5 years, you could literally change the face and character of this country. We would be applauded 100 or 200 years from now for what we had done to save the beauty and the openness of this great country of ours.

Yet this is, I can tell you, very low down on the priority list. And it is low down among other reasons because of the fact that we have given such a high priority to some of the other activities.

So, Mr. Chairman, I want to commend this committee again for the action that it has taken. I think that this is, as I say, potentially one of the most important hearings that has been held by the Congress.

The venerable poet Robert Frost, who came to Washington in the late 1950's and stayed on and became an important figure at the end of the Kennedy administration, once made the statement late in life about this country and what his hopes were for America. He said, "I would rather perish as Athens than prevail as Sparta."

I believe one thing that has been bothering a lot of people is that we have been too much Sparta and too little Athens.

And the trick is not to give up the kind of power that we need to preserve peace in the world. The trick, if we can achieve it, is to have a spartan strength, but restrained, and at the same time to do

what a great nation or a great civilization should do to build up those things, the city, the life of the people, the human relations within a society, the environment within a society, so that it does become not only rich and powerful, but rich in the sense of the civilizing influence that it has on the lives of its people and on the world as a whole.

So I believe in a very real way that this country does face some kind of decision in the next few years with regard to Sparta and Athens. I don't know what the answer is going to be, but I believe this committee is making an effort to enable us to make better judgments than we have made in the past.

Thank you.

Chairman PROXMIRE. Thank you, Mr. Udall, for a most moving and eloquent expression of what you regard as a serious imbalance.

You served in the Cabinet of President Kennedy and President Johnson, and I think with real distinction and with great effectiveness. Can you tell us whether you had a chance to argue the civilian case within the administration, for example, at Cabinet meetings or other high level conferences?

Mr. UDALL. No, neither of the Presidents that I served under had any systematic institutional way whereby there was a forum where you could argue domestic priorities against military priorities. It just was not a subject that was discussed. And we could and often did make our arguments for our own budgets very vigorously on the basis that this was very important, and it was as important as—well, I found myself probably too often picking on the space program, because of my own earth mindedness, and because I have seen the earth go to hell. But there was not—and I think it was a lack when I look back upon it—there was not a forum or a time where one was invited in the right setting to have a real slambang argument.

Chairman PROXMIRE. So you would make a strong appeal for necessary funds in your view for the Department of the Interior?

Mr. UDALL. That is right.

Chairman PROXMIRE. But you wouldn't criticize the funds that were being spent in the military area, the space area or for that matter in other civilian areas, you would concentrate very largely, with a few references to the space program, very largely on the appeal and merit of your own program, and that was it?

Mr. UDALL. You really were competing—let's face it, this is the reality, because the whole military area was considered beyond your judgment—

Chairman PROXMIRE. You were competing without any real critical analysis?

Mr. UDALL. That is right. The military area was beyond your judgment. And then you have this whole set of domestic programs, what I call the juggernauts, that were operating that were uncontrollable. And you have this little part of the budget, and you were fighting the other departments. This was really the context of it, to be quite frank with you.

Chairman PROXMIRE. Would you recommend a change in the new administration to make this more orderly—and not only more orderly, but to provide an opportunity to have a really useful comparison and analysis and basis for establishing priorities? Because I think it is a revelation to some of us in Congress, that the administrations, without any regard for partisanship, that the administrations didn't have a more systematic way of approaching it. We know how poorly Congress has approached this with our proliferated committees which recommend their appropriations and authorizations to the floor, and then there is no basis for comparison, something we are trying to get around now. But it is more shocking when an administration, through the Budget Bureau, and so on, hasn't set up a system of its own priorities. You did tell us in your last appearance, I believe, as Secretary of the Interior when you appeared before this committee last January, that in the many years you had been in Washington as a Congressman and as a Cabinet officer you could recall only two cases where a President had set goals for the Nation, all out goals: one, the highway program, and two the space program.

I was very impressed by that presentation. And you said in both cases we achieved our goals marvelously. The great envy of mankind is the highway program we are developing and the fantastic success we have in space. But no such determination has been expressed in achieving goals in other areas. Why is this?

And can you give us an idea of how we can achieve this? Of course we can't achieve all of the goals. Some of us would like to do a lot of things we can't do. How do we establish priorities.

Mr. UDALL. Well, having watched one President function as a member of Congress—

Chairman PROXMIRE. Let me interrupt to say, while this in my mind, that your appearance was one of the reasons why this committee is doing what it is doing. I think that our statement—your statement so concerned many of us that we decided that the Joint Economic Committee should get into this.

Mr. UDALL. Thank you very much, Mr. Chairman.

If I were President now or in the future—and I haven't the slightest ambition in that direction, even—so let's keep this on that level—

Chairman PROXMIRE. Arizona has been in there trying. I might say Barry Goldwater is going to appear before this committee on Tuesday.

Mr. UDALL. Fine. Well, you will hear a different point of view, I am sure.

It seems to me that it would be enormously useful to Presidents, now that we have come to the point that we have—and we recognize that there is a disarray, and there are priorities, and the country is tormented by problems on the domestic side which we should be able to solve—I would think a President would want maybe to take everybody up to Camp David with him for 2 or 3 days, and give them 2 or 3 weeks to prepare their arguments. And it would be enormously useful for him to just sit and have a slambang argument among the different people in the administration, each of them expressing their own sense of priorities, and each of them feeling perfectly free to criticize

other programs, and not only the military, but trying to assess what is needed, and discussing this in the sense of national purpose, and of national goals, and so on. I would think this could be perhaps the most useful thing that a President can do. I really believe this.

Chairman PROXMIRE. You referred to former Budget Director Charles Schultze's recommendation for a congressional institution to help establish a debate for priorities. He was very reluctant to recommend how Congress should organize itself. I don't think you should be as reluctant. You are a former Member of Congress. Perhaps you could tell us. We think, some of us, that the Joint Economic Committee can play a role in it.

Whether it can play a role in relating the priorities to the economic capacity of the country or whether it should play a greater role is the question. Do you have any idea as to how this can be done? There is some concern on the part of some people that you would do this by getting programs all the chairman serving on it, or perhaps a concentration of the representatives of the Armed Services Committee, and that if you do that you won't accomplish much of a change, or put forth much of a real challenge to the present setup.

Mr. UDALL. Let me express two views on this, Mr. Chairman. In the absence of some congressional institution to provide this overview we are talking about, an annual look at national goals and national priorities, and letting Members of Congress, experts from all walks of life in the country, come in—in other words, the kind of annual national debate of how well we are performing, and what our aims should be, and whether your national purpose is being fulfilled—I think this could be to me a very exciting and very important exercise. In the absence of any other joint committee—and it has to be a joint committee, it has to have both House and Senate representation—I believe the Joint Economic Committee ought to continue to try and fulfill this function. Probably ideally this might be a new joint committee on national goals and priorities.

That is the name that I would give it. And it should have the kind of membership—maybe the elder, senior members who have the power and the chairmanships would rush onto it, I don't know—but it ought to be representative, certainly, of the broad spectrum of opinion in Congress ideally. And the more it did so, the more it represented a cross section, the more effective it would be. But I believe with the complexity that we see before us now, with the complex nature of decision making, that Congress is going to find itself increasingly handicapped by the fragmentation which is the main feature of its own functioning.

Chairman PROXMIRE. Mr. Conable?

Representative CONABLE. Thank you, Mr. Chairman.

Mr. Udall, I would like to echo the chairman's statement. I think you have made a very fine, balanced presentation here.

I would like also to thank you for your candor. There is a great tendency on the part of the people who appear before this committee, particularly if they have had involvement with previous administrations, to stress the present condition and the future hopes and not to

give us the benefit of the kind of perspective you have given us on how we arrived at this condition, and how these concerns developed, and may not have been recognized until suddenly they appeared full scale on the scene.

And I think your perspective has been very helpful.

I would like to continue the line of interrogation that Senator Proxmire has started.

With respect to what the function of the Bureau of the Budget has been in the executive branch, it seems to me that this question of priorities is one of our crying needs for sometime. And at the present time, as I see it, the Bureau of the Budget is really the only group that is assessing priorities. And Mr. Schultze was very reluctant to talk about the substantive matters and substantive decisions that have to be made with respect to, say, whether we have 15 attack carriers or not.

Naturally that office is primarily concerned with economic priorities. You do have to get into substantive issues. And to what extent should the Bureau of the Budget do this, I wonder? Do you have any feelings about this?

MR. UDALL. The budget directors that I worked with were very able people. You saw Schultze in action. He is very tough and resourceful. And yet even they, under the old system, were limited in the role that they played, as he described it to you, apparently. It all pained me a great deal, because I found myself at the final round, when I sat down with the Budget Director himself, oftentimes arguing and begging for \$100,000 here and half a million dollars here, and so on, and yet I knew because we understood the limited role they played in reviewing military budgets, that here were billions of dollars being thrown around. And we were under a magnifying glass, whereas the military was essentially not being scrutinized in nearly the same way as the domestic side was.

And this was simply part of the game. There is nothing we can do about it. It is the way the game was played.

And what I am suggesting is that I believe Presidents would be better served if they had a larger role played by the military, and if there would be more staff. I think the President of the country would be better served if the congressional committees, that oversee the military establishments were not only much more aggressive, but had the kind of staffs that really could provide oversight.

I don't think Congress is equipped to supervise the military today, I frankly don't.

Representative CONABLE. You have the impression that the Bureau of the Budget had a great deal more pressure on you than it did on the Defense Department?

MR. UDALL. Precisely.

Representative CONABLE. Is this situation going to be improved by increasing the size of the Bureau of the Budget, perhaps, or further specification of its duties?

Mr. UDALL. The Bureau of the Budget as I dealt with it for 8 years I found to be one of the best organizations in the executive. They are pretty lean, and they are pretty clever people, most of them. I would probably give them a few more economists and computers and things like that. But I came out of my Government experience with a very strong conviction that we could do a much better and much more efficient job in terms of developing the kind of overall national goals and national priorities that we needed if we had more and more people who are trying to get the complete overview of what Government was doing and what the country needed.

Representative CONABLE. During the Johnson-Kennedy administrations in the White House did the White House staff itself tend to fragment the same way as you have described Congress as fragmenting? Did people become advocates for programs and for defense as related to domestic programs, for instance, in the same way that the Congress did, or was the White House staff itself serving to provide a greater overview than, for instance, our congressional organization permitted?

Mr. UDALL. I would rather you tossed that question to Joe Califano, because he will give you a much better answer. All I could do was guess. Because he was inside the White House, and I was an occasional visitor. So I think I will pass to Joe on that one.

Representative CONABLE. All right.

Now, I am interested in your proposal for a joint committee on priorities. You correctly expressed the same concern I might have that the same people would turn up on this committee who presently serve as the chairmen of the specific committees. Do you have any feeling as to how this could be avoided? I suppose Congress itself could specify the membership of the committee. Do you have any thoughts about organizational specifications that could prevent this from becoming a protective operation?

Mr. UDALL. Well, I am going to be radical, Congressman. I have one very basic idea. Because the longer I hang around Washington, the more absurd and anachronistic the seniority system appears to me to be. There is not a single State legislature system out of the 50 that uses this as a way of operating. And if there is anything that is the essence of success of the American democracy, it is the idea that ability and merit count. This is the way men rise in business. This is the way they rise in politics. And if you had each time a Congress organized the real leaders and the real vigor coming through rather than having the deadweight of leadership being decided by something rather than a decision made by the people who are elected—I think this is the real vice that we are confronted with. And I just toss it back to you.

Representative CONABLE. You must have some opinion as to why this hasn't been changed before, sir.

Mr. UDALL. I do.

Representative CONABLE. I have no further questions.

I would like to say, as I view your remarks, I applaud them. I take it that you are asking for balance, you are asking for a sense of priority, you are not against the military as such, you are not for

other things, except in the perspective of a balanced approach by Government to the very real problems we have around the world and here at home?

Mr. UDALL. This is, I think, the great challenge Congress faces as a whole, as a totality.

Chairman PROXMIRE. Before I yield to Mr. Moorhead, I can't resist observing that you got out of the Congress at the right time as far as your attitude toward seniority is concerned. You know, the longer you stay around here, the more intelligent, the more effective, the wiser the seniority system tends to become.

I say that as chairman of the subcommittee.

Mr. UDALL. Mr. Chairman, there is something subversive about it. The longer you stay the more you are corrupted by it.

Chairman PROXMIRE. The more what?

Mr. UDALL. The more you are corrupted by it—I say corrupted in the sense of having your mind and your judgment formed by circumstance.

Chairman PROXMIRE. Well, you choose your corruption, you know. It is one of the joys of life.

Congressman Moorhead?

Representative MOORHEAD. Thank you, Mr. Chairman.

Mr. Udall, I know, is a great student of the congressional process and Government generally, but particularly the Congress, because the first year I was elected and came down here, Mr. Udall was conducting the first seminar for freshman Congressmen. So I learned about congressional procedures at the feet of our witness here.

And I might take this opportunity to thank you very much for that, Mr. Udall. It was most helpful.

I think that we are exploring some very delicate situations here, including the seniority system. But to get to the thing that has troubled me, Senator Fulbright testified to the other day that in his many years of service here, Congress as a whole had never upset a request by the military for anything. He also testified that maybe this year will be the first occasion, on the ABM.

But I think you made some pertinent observations—you said frankly you had a prejudice toward earth and toward education so when you came to Congress you served on the Education and Labor Committee, presumably because you thought it was important to be able to do something for education. And probably as you kept in contact with educators coming before your committee, you felt even more strongly about this as you went along.

Would that be a fair statement?

Mr. UDALL. Yes, that is right.

Representative MOORHEAD. And I think that another man coming to Congress might believe that the national security, security from the external threat, would be his prejudice. And he would seek a seat on the Armed Services Committee, would he not?

Mr. UDALL. Yes. This has been a tendency, of course.

Representative MOORHEAD. And as he continues to serve and move up in seniority, his contacts would be with the very fine and dedicated citizens serving in the military, who would tend to confirm him in his beliefs, is that not correct?

Mr. UDALL. This has been very clearly the way the system functions, yes.

Representative MOORHEAD. Not accusing anybody of anything, but this is just the way one develops and grows in the Congress, is it not?

Mr. UDALL. And the constituents and clients of each area have a way of sort of enveloping and imprisoning everybody into believing that their own area of activity is the most important and the most vital, and that four questions ought to be asked, because everything is just right. This is the whole tendency.

Representative MOORHEAD. I come from a city, so I tried to serve on the Banking and Currency Committee and the Housing Subcommittee. But when we bring a bill to the floor the people who serve on the Agriculture Committee, because it is an open program, it isn't that complicated, can serve as a check rein on us even as we can to a degree on the programs coming out of the Agriculture Committee. So I think that the Congress functions reasonably well in allocating priorities among domestic programs.

But the thing that concerns me, as Seantor Fulbright said, is that the Congress never upsets a military request, because those requests come out shrouded in secrecy and wrapped in the flag, and we are told of the complexity of the decisions, and you are unpatriotic if you go against it, isn't that right?

Mr. UDALL. Congressman, it seems to me I remember one year when I was in the House when there was the same amount of time, which would be 2 days, that was spent on an Interior Department appropriation bill to be for a billion dollars, and on the Defense Department appropriation bill. This is the sort of thing—we had to handle them both in 2 days, and the discussion was very limited, and there were no searching questions asked. And in fact, I can remember times in Congress when, as I say, it was a little bit dangerous to ask questions about military programs and military necessities.

Representative MOORHEAD. I agree with you that we have got to have some sort of an overview and look at priorities. One of the witnesses compared the cost of eliminating pollution in Lake Erie with the cost of eliminating one attack carrier task force. And it is a little hard to know how you can determine the priorities between those two.

Mr. UDALL. We haven't developed any method. But I think we ought to start arguing it out, Congressman. And I think if we did this could be a very healthy thing. I think we could develop in the next few years a whole new criteria for discussing our national purpose, and how we want to spend the wealth of this country. There is too much of it that has been beyond discussion, or there has been a juggernaut that is turning away that you couldn't stop.

Representative MOORHEAD. I think one of the keys is the Bureau of the Budget, which is the only executive agency outside of the defense establishment that is adequate to do this job. I think that many people think that the Bureau of the Budget is doing a job of allocating between military and civilian programs. But the procedure by which the military budget is handled is entirely different. As you said, the Bureau of the Budget takes Interior figures to the President, and you have to go to the President to upset the Bureau, whereas in the Defense Department, the Secretary of Defense takes his final budget to the President, and if the Director of the Bureau of the Budget wants to object he has to go to the President to attempt to upset it. It shifts the burden of proof. And I think when the people begin to understand this they will object. And I think the President will hear the voice of the people and give new directions to the Bureau of the Budget.

And also the Congress will hear the people and give new directions to the General Accounting Office, or maybe to some new institution.

Thank you.

Chairman PROXMIRE. I just have one other question. It has been suggested by somebody in the audience. You might have an observation on the point that about half the national budget is overseen, as far as authorizations are concerned, is overseen by the Armed Services Committee in the House and the Armed Services Committee in the Senate, and the other half of the budget is overseen by all the rest of the House committees and all the rest of the Senate committees. Doesn't this just obviously, on the basis of its organization, result in a disproportionate lack of scrutiny for the military budget.

Mr. UDALL. Well, to underscore the point I made earlier, Congressman, just as a matter of commonsense and staffing, if you said here is half the budget, you would have the staff people. And I think it would be fascinating for this committee, maybe to look at the staff that the various committees have today, both the Appropriations Committee and the authorizing committees.

Chairman PROXMIRE. I may be wrong—I serve on the Appropriations Committee—but to the best of my knowledge there are two or at most three staff members assigned to the subcommittee on defense appropriations. And you can imagine what they can do with an \$80 billion budget. They are very able people.

Mr. UDALL. They are very able. But the point I am making, and I think nothing does more to dramatize it, these men, with their very limited resources—and I worked in a little department where I had a lot of human resources—their adversary is the whole Pentagon with computers, with consultants, with every thing else. And no wonder it is an uneven contest. No wonder searching questions aren't asked. No wonder Congress has tended to operate as a rubber stamp. And I look back at my congressional service, and I can only describe the way I voted on military matters in that period as rubberstamp voting.

Chairman PROXMIRE. Thank you very, very much, Mr. Udall. You have certainly done an excellent job. It has been most informative and helpful.

Our next witness is Mr. Joe Califano.

Mr. Califano, we are very happy to have you. You may proceed.

STATEMENT OF JOSEPH A. CALIFANO, JR., FORMER SPECIAL ASSISTANT TO PRESIDENT LYNDON B. JOHNSON

Mr. CALIFANO. Thank you, Mr. Chairman.

Let me initially echo the words of the witnesses who have appeared earlier this week that this committee's decision to hold hearing on the military budget and national economic priorities is extraordinarily timely and important.

Others, substantially more qualified than I, have already testified on the problems involved in any careful, analytical review of the military budget and the military needs of our Nation. In the letter inviting me to testify, the chairman noted that, "the future structure of American economy and society depends on the priority we assign our several objectives and the efficiency with which we strive to obtain them." It is to this point, particularly with respect to our domestic priorities, that I would like to address my comments today.

I would like to raise some of the problems related to our commitments at home.

We hear repeatedly in Congress and in the executive branch of the need for the United States to fulfill its military commitments; the need for this or that weapons system, for these or those bases here or abroad, for an extra division to make certain that we can meet the commitments that we have made around the world. There are commitments to our neighbors, commitments for Spanish bases, SEATO commitments, commitments in Vietnam, commitments to Japan, commitments to the United Nations, commitments involving the Organization of American States.

I believe that we hear too much about these commitments and not enough about our commitments at home—about our commitments to the pressing needs of the American people. It is essential to consider our domestic commitments and weigh them against our military commitments. Until the Congress and the Executive have the means to make informed judgments on military and domestic needs, side by side, just as they now make choices among competitive weapons systems, they cannot fulfill their responsibility to our people.

We have never hesitated to provide the resources or make the sacrifices that were considered necessary to protect our national security from foreign dangers; yet time after time we have failed to provide the resources and make the sacrifices necessary for all Americans to live at some minimal level of human dignity and spiritual tranquillity.

I believe that any one who reads the daily newspapers must realize that our domestic commitments involve the national security at least as much as do our military commitments abroad. I do not mean to belittle the need for a strong defense posture. The point is that domestic needs must be considered among our top priorities—even if those priorities are characterized in terms of national security.

Like Proteus, the problems and issues which confront this Nation at home continue to take on different forms and shapes. But at their center is this vital question: Is the American commitment to social justice rhetorical or real?

We have seen rhetorical commitments in the planks of the national party platforms. Last year, both political parties pledged increases in Federal housing programs, the elimination of slum conditions through job training, education, recreation and crime control programs. Both parties supported expanded conservation and antipollution programs.

The most solemn American rhetorical commitments are in the Declaration of Independence and the Constitution, the Proclamations and Executive orders of our Presidents and the preambles and sections of recently enacted legislative programs—for housing, education, manpower training, health, and a host of other urgent domestic problems.

Let me give a few examples of American commitments in laws passed by the Congress.

1. The Housing Commitment: The Housing Act of 1949 declared that the “general welfare and *security of the Nation require* (italics supplied) the elimination of substandard and other inadequate housing through the clearance of slums and blighted areas, and the realization * * * of a decent home and suitable living environment for every American family * * * .” In the 1968 Housing and Urban Development Act, the Congress recognized that for 20 years the promise had not been kept, noted the failure as “a matter of grave national concern” and rededicated itself to “the elimination of all substandard housing in a decade.”

Yet, how much has been done to fulfill that commitment to the 25 million Americans who still live in housing unfit for human habitation?

2. The Cities Commitment: The 1966 model cities legislation declared as congressional policy that “improving the quality of urban life is the most critical domestic problem facing the United States * * *” and stated as its purpose the provision of “financial and technical assistance to enable cities of all sizes * * * to plan, develop and carry out locally-prepared * * * programs * * * to rebuild and revitalize large slum and blighted areas.”

Yet, we continue to stand by while the physical plant of most of our cities further decays and obsolesces and the post-war suburbs of the 1940's enter the first stages of severe deterioration.

3. The Antipoverty Commitment: The Economic Opportunity Act of 1964 declared it “the policy of the United States to eliminate the paradox of poverty in the midst of plenty in this nation by opening to everyone the opportunity for education and training, the opportunity to work and the opportunity to live in decency and dignity.”

Yet, 5 years later, 22 million Americans still are locked in poverty.

4. The Crime Control Commitment: The Omnibus Crime Control and Safe Streets Act of 1968 recognized the urgency of the national crime problem as a matter that threatens “the peace, security, and general welfare of its citizens,” and made it “the declared policy of the Congress to assist State and local governments in strengthening and improving law enforcement at every level by national assistance.”

Yet, the Congress provided only \$63 million for this purpose in fiscal 1969 when virtually every local police force in this Nation—well over 300,000 policemen—needs better training and equipment and higher salaries. That \$63 million is the equivalent of \$210 for each of those policemen.

It is easy to point to the recent increases in Federal, State, and local spending in these areas as evidence that many of our domestic commitments are being met. I have often used as examples of Federal increases:

The education budget that grew from \$4 billion to over \$13 billion in 5 years.

The health budget that rose from \$4 billion to over \$16 billion in 5 years.

The cities budget that grew from \$900 million in the late fifties to a level of \$5 billion last year.

But these large rises are insufficient to meet the urgent national priorities at home. They even fall short of amounts authorized by the Congress. In an appendix to the January 1969, Economic Report of the President, the Bureau of the Budget noted that the fiscal 1969 gap between amounts authorized by the Congress and funds appropriated for domestic programs, such as education, housing, and community development, water and air pollution control, totaled \$6 billion.¹

Moreover, even the authorizations do not provide sufficient resources to do the job. The Federal Government's estimate of the cost of implementing the Kerner Commission's programmatic recommendations was at least \$30 billion over and above what we are now spending. The President's Rural Poverty Commission said it would cost \$40 billion more than we are now spending to wipe out rural poverty.

Merely to provide for the full development of existing programs and a few modest new programs, the cost in fiscal 1972 would be an additional \$37.7 billion. This is not the projection of dreamers. It is a careful calculation contained in a December 1968 report to the President, signed by the Secretaries of the Treasury, Defense, Commerce, and Labor, the Director of the Budget, and the Chairman of the Council of Economic Advisers.

(See following table:)

¹ Economic Report of the President, January 1969. Page 202 contains the following table:

Estimated gap between amounts currently authorized and funded program

	<i>Billions per year</i>
Total full cost.....	\$6.0
Elementary and secondary education.....	2.0
Higher education.....	1.3
Housing and community development.....	.6
Water and air pollution control.....	.5
Crime control and prevention.....	.2
Area redevelopment.....	.5
Health training and research, etc.....	.4
Agricultural conservation and adjustment.....	.5

TABLE 3.—*Illustrative new programs or major expansions of existing Federal civilian programs, fiscal year 1972 (derived from proposals of task forces and study groups)*

PROGRAM	
[Hypothetical expenditures in billions of dollars]	
Total expenditures.....	39.7
Education.....	7.0
Preschool.....	1.0
Elementary and secondary.....	2.5
Higher.....	3.0
Vocational.....	.5
Health.....	3.8
Kiddie-care.....	.5
Medicare for disabled.....	1.8
Comprehensive health centers.....	1.0
Hospital construction and modernization.....	.5
Nutrition.....	1.0
Community service programs.....	.8
Jobs and manpower.....	2.5
Public jobs.....	1.8
Manpower Development Training Act.....	.5
Employment service.....	.2
Social security and income support.....	9.5
Unemployment insurance.....	2.0
Public assistance.....	4.0
Social security improvements.....	3.5
Veterans.....	.3
Economic, area, and other special development programs.....	2.2
Entrepreneurial aid.....	.5
Area redevelopment.....	.5
Rural development.....	1.0
Indian assistance.....	.2
Crime, delinquency, and riots.....	1.0
Violence and riot prevention.....	.1
Safe streets programs.....	.3
Rehabilitation of offenders and delinquents.....	.3
Prevention of delinquency and crime by special measures for delinquency-prone youth.....	.3
Quality of environment.....	1.7
Air pollution prevention and control.....	.1
Public water supply construction programs.....	.3
Water pollution control and sewage treatment.....	1.0
Solid waste disposal.....	.1
Natural beautification, environmental protection, and recreational development.....	.2

TABLE 3.—*Illustrative new programs or major expansions of existing Federal civilian programs, fiscal year 1972 (derived from proposals of task forces and study groups)—Continued*

PROGRAM	
[Hypothetical expenditures in billions of dollars]	
Natural resource development and utilization-----	1.4
Land and forest conservation-----	.2
Water resources and related programs-----	.5
Mineral and energy (excluding hydroelectric) development-----	.2
Natural environmental development-----	.5
Urban development-----	5.5
New cities-----	.5
Land acquisition and financial planning (suburban)-----	.5
Urban mass transportation-----	.5
Model cities-----	2.0
Other urban facilities and renewal-----	2.0
Transportation-----	1.0
Airway and airport modernization-----	.4
Rapid interurban ground transit-----	.1
Modernization of merchant marine-----	.2
Motor vehicle and transportation safety research and safety grants---	.3
Science and space exploration-----	1.0
Post-Apollo space program-----	.5
Scientific research in oceanography, communications, social and behavioral sciences, and natural sciences-----	.5
Foreign economic aid-----	1.0

NOTES

Education. The preschool program, an extension of Head Start, would provide full-time preschool education for about 500,000 children. The elementary and secondary education funds would about double the Federal support in that area. The funds proposed for higher education would more than double current Federal support. The vocational education funds would raise Federal support about halfway toward the recommendation of the 1968 Advisory Council on Vocational Education.

Health. The "kiddie-care" proposal would provide health care for needy mothers and infants. Medicare offered to beneficiaries of social security disability insurance on a contributory basis would potentially reach 2.2 million persons in 1972. About 350 additional comprehensive neighborhood health care centers a year could be established for the amount shown. The added funds for health facilities would enable the Federal Government to double the rate of output of such facilities, in line with estimates of national needs.

Nutrition. Nutritional supplements for needy pregnant women, nursing mothers, and small infants account for about \$200 million, while the remainder would allow a doubling of existing food assistance programs.

Community service programs. This would provide for expanded daycare centers for children of needy working mothers and for expansion of coordinated services through neighborhood centers.

Jobs and manpower. The funds for jobs in the public sector would permit expansion of about 500,000 jobs to provide public service employment for the chronically disadvantaged; this program would reinforce expansion in education, health services, and urban and area redevelopment. The increase in MDTA training would support expansion of the JOBS program and would reinforce efforts to lower unemployment while improving the Nation's price performance. It would also provide trained manpower for construction. The growth in employment service operations envisions strengthening, decentralizing, and computerizing manpower activities; developing a rural manpower service; and enlarging services to the disadvantaged.

Social security and income support. The unemployment insurance funds would provide for higher benefits, extended benefits during recessions, and aid to the unemployed through retraining and mobility assistance. The public assistance funds could permit revision of benefit standards and extended coverage, or the adoption of a modest new program of income aid with objective standards. The added expenditure could fill as much as 40 percent of the current poverty income gap. Expansion of the WIN program would provide more job and training opportunities for welfare recipients. The social security expenditure could provide a higher minimum benefit for those dependent on social insurance benefits as the main source of income, and liberalization of eligibility requirements for disability insurance, as well as some general improvement in benefit levels.

Veterans. The higher priority recommendations made by the Veterans' Advisory Commission in March 1968 could be instituted with these funds.

Economic, area, and other special development programs. The entrepreneurial assistance program could help minority groups—so-called "black capitalism." Area redevelopment programs would assist growth centers in less populated areas, while rural redevelopment programs would concentrate on small communities, providing community facility development, special housing, and family farm assistance.

Crime, delinquency, and riots. Federal aid to State and local governments could be provided to help prevent violence and riots and permit a higher degree of Federal readiness to cope with such emergencies. The safe streets program funds would be used to work towards the objectives of the National Crime Commission with respect to strengthening the police and courts. Rehabilitation of offenders and delinquents would be pursued by intensive retraining and other services.

Quality of environment. Federal funds for pollution abatement may be required to enforce standards, investigate claims, or abate pollution caused by government or not readily attributable to particular private individuals. Assistance in expanding the Nation's water supply system would provide a small fraction of the \$2.5 billion annual requirement over the next 10 years. Provision of more recreational areas near population centers would be made possible.

Natural resource development and utilization. Department of the Interior, Corps of Engineers, and Department of Agriculture programs relating to land, mineral, energy, forest, recreational, and other fields have large backlogs of useful projects, many already planned and authorized but held back for budgetary reasons.

Urban development. Metropolitan development assistance would support improved planning and coordinated advance land acquisition. Each of these programs emphasizes these requirements, whether in new communities, suburbs, or older central cities. The allowances represent only a fractional contribution to the reconstruction and development of the cities.

Transportation. Such expanded investments in the improvement of the principal elements of the Nation's transportation system would serve the objectives of economic development, safety, and national defense.

Science and space exploration. The allowances would permit the science and space agencies to fund some of the research opportunities not covered in the stringent budgets of recent years.

Foreign economic aid. This additional amount would help to meet growth targets in Southeast Asia and under the Alliance for Progress as well as to cover other aid requirements. Even this increase would leave our foreign assistance program below levels of a few years back.

Source: Bureau of the Budget.

Their projection does not include such often discussed proposals as:

A comprehensive income maintenance program, which to succeed in making major inroads on poverty while preserving work incentives, would cost several billions more per year.

A guaranteed employment opportunities program which would cost between \$2 and \$10 billion a year.

Some modest scheme of revenue sharing, designed merely to reduce the more onerous burdens of State and local taxes, which would cost between \$5 and \$10 billion a year.

I use these examples to show how important it is for the Congress and this subcommittee to consider our domestic needs as part of any determination of the priorities which should be given to military spending.

I, for one, would not hesitate to further increase taxes to take care of these needs. But we all know the difficulty of raising taxes. The political situation is such that this is deemed a task almost impossible to achieve.

In view of this situation, the work of this committee is all the more important. As Mr. Schultze pointed out on Tuesday, even if we have an additional \$90 billion in Federal revenues 5 years from now—a figure which assumes a \$20 billion saving from a cease-fire in Vietnam and repeal of the surtax—we must subtract \$35 billion to take care of built-in uncontrollable civilian expenditure increases and \$20 billion to provide for a modest rise in non-Vietnam military spending. This leaves a combined fiscal and peace dividend in fiscal 1974 of something on the order of \$35 billion, available for discretionary use to meet high priority public needs. That \$35 billion in fiscal 1974 is not even enough to cover the projected fiscal 1972 needs of existing programs, if those programs are fully funded.

As the President's Committee on Post-Vietnam Planning put it:

The end of the struggle in Vietnam, together with increased tax revenues resulting from economic growth, will make a sizable volume of real resources available to deal with these problems. But for years and years ahead, the peace-and-growth dividend is dwarfed by the magnitude of these needs.

In other words, there are—and there will continue to be—difficult choices to be made about our national priorities; not merely choices between increased expenditures and tax reduction, but choices between defense spending and nondefense spending, choices among civilian programs, and indeed choices between raising taxes and failing to meet our commitments at home.

Our key question is whether the Executive and the Congress have available the mechanisms by which to make those choices informed and intelligent. To provide those mechanisms, I fully endorse the recommendations that the defense posture statement be expanded to project 5-year costs of decisions included in the current year's budget and to establish an appropriate institution within the Congress to review and analyze that posture statement (and another from the Secretary of State) in the context of broad national priorities.

I would like, however, to supplement those recommendations with some of my own:

First. I believe there should be established within the executive branch of the Federal Government a mechanism capable of developing and projecting 5-year costs of domestic program decisions, and, to borrow from the military lexicon, the threats they are designed to meet—in this case, threats of collapsing cities, malnutrition, pollution, congestion.

Second. The executive branch should be required to submit to the Congress a domestic posture statement which carefully assesses domestic priorities and needs, and projects the cost of the programs designed to meet these needs for a 5-year period.

Third. To prepare such a posture statement and make those projections, an Office of Program Development should be established in the Executive Office of the President.

This office should be outside the Budget Bureau, but part of the Executive Office of the President, although not part of the President's personal staff. The role of this office would be to measure competing claims of various domestic programs for tax dollars and to project, on a realistic and detailed basis, the 5-year costs of meeting the objectives established in the national posture statement.

The Office of Program Development would do more than provide the President with the alternative ways of abating pollution or rebuilding cities. Presumably, a well operated Cabinet department would provide that kind of analysis. This office would provide analyses and recommendations on the choices that should be made—considering the longer run as well as the present—among competing programs: air pollution versus child health versus rebuilding cities versus job training. Included in any such analyses and 5-year projection should be the cost—financial and social—of failure to pursue a particular program or meet a particular need.

The 5-year posture statement would be developed by the Director of the Office of Program Development, working with the Cabinet officers. It would be reviewed not only by the Director of the Budget and the White House staff, but by the President himself. It would represent, on the domestic side of government, the kind of posture statement that has been proposed to this committee on the military and foreign affairs side.

With such 5-year projections, the Congress would have before it the kinds of information essential for intelligent and informed decision making among the extraordinarily difficult choices that lie ahead. Moreover, the President would have, for the first time, the kind of information on which to make long-range judgments about his own recommendations to the Congress.

Most importantly, the American people would be able to make a judgment about the resources necessary to protect their national security at home as well as the resources necessary to protect their national security abroad.

I recognize that money alone will not make our domestic rhetorical commitments real any more than money alone can assure our national security abroad. Increases in expenditures and reorientation of priorities to better meet our domestic needs must be accompanied by institutional changes which penetrate all levels of government and social action.

At the Federal level, the old-line agencies must be rearranged and responsibility more clearly placed in accord with authority, in a new set of domestic departments. Anyone who works in the Government promptly discovers that coordination is no substitute for getting the

organization charts in shape, for giving the President one man with enough authority to be held responsible for transportation, or defense, or some other critical activity.

Twentieth century problems will not be solved by a 19th Century organization of the Federal Government. For a Government that is now administering over 400 domestic programs was organized to administer 40.

And institutional change must not stop at the last page of the Federal Government Organization Manual. The problems of our society are increasingly multijurisdictional. We know that to plan and execute human and economic development programs in terms of state boundaries is as arbitrary as the lines the Pilgrims drew over 300 years ago. For the resources and conditions which affect prosperity and poverty, pollution and transportation, extend over entire regions—New England, the Great Lakes, Appalachia. New levels of cooperation in which resources can be pooled and shared must replace egocentric and bureaucratic lines that now serve mostly to protect insular political power.

The web of government also extends into the county commissioner's office, city hall and the local neighborhood. It is here that government can become an horrendous maze of competing and conflicting jurisdictions. It is here, at the grass and concrete roots, where the need for change may be most urgent, if we are to spend our resources efficiently. There are many needed reforms in these areas, perhaps the most important of which is to provide more public services on a combined basis.

Institutional and organizational problems tend to be considered dull and superficial. At this time in the development of our nation, however, they are nearly as important as judgments about the investment of our resources in domestic or military programs. For without such institutional changes, the reorientation of our national economic and fiscal priorities, which so many of our citizens seek, could become a futile gesture.

Thus, there are two critical elements in any consideration of "the priority which we assign our several objectives and the efficiency with which we strive to attain them": sufficient resources to do the job and institutional changes to help use those resources effectively.

Historians from Gibbon to Toynbee have warned us that the great civilizations of the world are destroyed, not by the enemy without, but from within. This is the paramount danger we face in this country today. As Toynbee noted, "In all the cases reviewed"—the 16 civilizations he studied—"the most that an alien enemy has achieved has been to give an expiring suicide his coup de grace."

The rhetoric of the Congress and the Executive in defining national goals is fine. The reality—the commitment at home—is yet to be achieved: in resources, as well as in institutional changes, necessary to avoid the catastrophic decline in the greatest democracy in the world.

It is ironic that the only total commitments our Nation has been able to make have been in times of war. World War I and World War

II provide classic examples of national commitment of economic and human resources and institutional innovation to meet the problems of survival.

The problems we face at home present no less an issue than survival itself. If so, is it time for this Nation to turn to the tools of commitment that have brought it through the two greatest wars in the history of man?

It may well be that the only way we can apply the material resources necessary to provide for the disadvantaged among us is by taxation and economic measures that approach those we use in time of war. This may well be the only way to turn loose the genius of American science, medicine, industry, labor, and agriculture and all the other skills we have developed on the scale required to solve our problems before it is too late.

It may well be that institutional changes under traditional, jealous bureaucracies, operating on a business-as-usual basis, are impossible, and that we must create, at least on a temporary basis, national and regional powers and institutions that will not be inhibited by artificial State boundaries and excessively legalistic concerns about the role of the Federal, State, and local governments.

There are doubtless other, less drastic means to get at the problem and I hope we can find them. This committee is undertaking a major study in this area. In its deliberations, I hope that this committee will not only make recommendations to control the military budget, but also to measure our commitments as a nation at home against those commitments we consider so sacred abroad.

Mr. CALIFANO. Thank you, Mr. Chairman.

Chairman PROXMIRE. Thank you, Mr. Califano.

This is exactly the kind of statement that I think is most useful to the committee in its deliberations, because you are such a vigorous and realistic champion of domestic programs.

At the same time I must say that, given the taxpayers revolt, given the reluctance of people to increase taxes, as a matter of fact, continue the taxes we now have at the present time, it seems to me that we are going to somehow come up with some hard, tough decisions in the domestic area as well as in the military area. What you outline would result, as you say, in a very heavy burden, wartime taxes in peacetime, on the assumption that we do have peace within a reasonable time.

Don't you feel that we can reduce at least some of the domestic programs we have, or, say nondefense programs?

For example, you listed in your shopping list the space program. And I presume that you would include some of our public works programs. And very possibly we are going to have to devote continued resources in this area. But in the public works programs we are now spending over \$10 billion. It seems to me that we can make a real challenge to some of these programs as to whether or not they are useful, at least to that level of expenditure at this time. And the space program, the President's Advisory Council, as I understand it, under President Johnson proposed that we should stop manned space land-

ings after we have reached the moon, which I presume will be in another month or so, and have unmanned space exploration. And this would save some money.

So that my question to you is whether you really feel that it is necessary to go ahead with everything in the nondefense area.

Mr. CALIFANO. Mr. Chairman, I do not. I think that there are many programs we can cut. I think it is extraordinarily difficult to cut them. The \$37.7 billion figure I used excluded the space program element from the chart I attached at the end of the statement. I would certainly do exactly what the recommendation of President Johnson's Advisory Council was on space in terms of manned landings.

But we have tried in the past 2 or 3 years to cut some programs that at least we thought were less urgent, to say the least, at the present time. As you know, we tried to hold back highway funds, we tried to end the impacted school program, when in fiscal—

Chairman PROXMIRE. You did hold back highway funds?

Mr. CALIFANO. We did hold back highway funds.

Chairman PROXMIRE. And then you caved in?

Mr. CALIFANO. We eventually released the funds.

Chairman PROXMIRE. This was an action of the executive in December 1966, wasn't it?

Mr. CALIFANO. That is correct.

Chairman PROXMIRE. For 3 or 4 months you felt that the economy didn't need that kind of fiscal restraint apparently at that time?

Mr. CALIFANO. That is correct, Mr. Chairman. I appreciate the help.

We tried to end the impacted school program unsuccessfully. We tried to end other programs in the milk area with which the chairman is thoroughly familiar.

We were able to hold at relatively stable levels for the last 2 years most of the public works program. But we ran into the kind of thing that Secretary Udall was talking about. There are juggernauts in some areas of our domestic programming. Once the program is started a constituency forms for the program, and it becomes enormously difficult to stop it. I think we have got to figure out—

Chairman PROXMIRE. That is exactly right. And that is why I think your testimony is very useful here in highlighting the fact that it is not just the military that has this problem of constituency developing and insisting and pushing, but also some domestic programs, and that to the extent to which we can have a debate on priority, it is recognized that we can't do everything, that if we make hard, tough choices we will be just a great deal better off.

I found our application of the term "commitment" to both domestic and military matters to be very interesting. As you know, for some reasons our commitments in the international area have been interpreted for some reason as absolutely binding, while those here at home can often be abrogated with little or no conditions. On Wednesday the subcommittee heard the testimony of Professor Boulding, who pointed out that when defense spending goes up by a dollar, spending for education is the main thing that goes down.

And he is a very respected economist, former head of the American Economic Association and a highly responsible person. I would like very much for you to comment on this assertion and describe whether it coincides with your experience in these matters.

Mr. CALIFANO. I think to a degree that is true. I would have to accept his number on faith. I haven't ever made the kind of statistical check he has apparently made.

I think if you look at the budget as a percentage of gross national product, defense and nondefense spending, excluding Vietnam, is less today than it was for the average of 1955 to 1960. It was 18.3 percent then, and it is about 17.3 percent today. Vietnam spending has gone up and the overall budget is a slightly larger percentage of our gross national product.

On that point, Art Okun has made an interesting suggestion in a lecture he gave some time ago at the University of Pennsylvania to change the tradeoff from defense spending and civilian spending and make the tradeoff defense spending versus taxes. He pointed out that with the surcharge costing about \$12 billion in taxes to the American taxpayer right now, if the Congress passed a law that in effect said the surcharge will be reduced as the defense budget is brought back to the level it ought to be post-Vietnam then the choice would be between the private sector and defense, not between defense and domestic programs.

(The following material was received from Mr. Okun in response to a subsequent request from Chairman Proxmire:)

THE BROOKINGS INSTITUTION,
Washington, D.C., June 12, 1969.

Senator WILLIAM PROXMIRE,
Chairman, Subcommittee on Economy in Government,
Joint Economic Committee,
Congress of the United States,
Washington, D.C.

DEAR SENATOR PROXMIRE: In response to your letter of June 10, I am happy to submit for the record the attached excerpt from my University of Pennsylvania lectures, which Mr. Califano referred to in his testimony.

In it, I argue that the tug of war between defense and the cities is the greatest paradox of resource allocation in our society. Private spending should not be a bystander. We can make the trade-off more sensible by charting a course for public civilian programs and then by allowing spurts or cutbacks in defense spending to be reflected in higher or lower tax rates. In particular, I suggest that the phasing out of the current income tax surcharge should be linked to reductions in the defense budget below its current \$80 billion level.

Let me take this occasion to commend the JEC for its continuing contribution to public understanding of the vital issues concerning national priorities.

Sincerely,

ARTHUR M. OKUN,
Senior Fellow.

EXCERPT FROM "THE POLITICAL ECONOMY OF PROSPERITY"¹

By Arthur Okun

How much can we afford to spend on increased efforts to eliminate poverty? My first inclination is to answer that question with another question: How long can we afford to tolerate poverty in an affluent society? A less rhetorical answer is that we can afford any amount that we want so strongly that we are willing to pay for it through higher taxes or lower spending on other public services.

If the Nation were willing to return to average income tax rates of 1963, we could have another \$10 billion a year to spend on the war against poverty. Then, we could have public-sector butter by sacrificing some private-sector butter. Americans do not seem willing to make that choice. People want justice and cleanliness and beauty in our cities, but apparently the majority want their annual 3 percent gain in private living standards even more. The popular view—at least as reflected in congressional action—is that we want all the social progress we can have without requiring a rise in taxes.

If that is indeed the voice of the people, how much and how fast we can make progress toward our social goals at home will be determined largely by the size of the defense budget. If this is a fact of political life, it reflects an absurdity. By any standard of logic, an increase or decrease in defense spending of 1 percent of our GNP should have no significant effect on the amount of our spending on social programs at home.

National defense is an overhead cost of our society, and we should want to share overheads fairly. If 1 percent of our GNP floated out to sea and we were asked how to share the loss equitably, no one would suggest that our Federal civilian programs ought to bear a major share. If we thought that the initial allocation of expenditures between private and public civilian outlays was about right, we might want to share the costs of extra defense proportionately, applying about 15 percent to public nondefense expenditures and 85 percent to private outlays. If we felt that the Federal civilian outlays had particularly high priority, we might want to exempt them entirely.

The absurd battle between defense and the cities arises because we insist on rather stable tax rates and hence on a relatively constant Federal share of our national product. Thus, these two areas are plunged into a direct tug of war for a fixed volume of budgetary resources. This is surely the greatest paradox of resource allocation in our society. Defense spending—with its 9 percent of GNP—is pitted against nondefense Federal, state and local expenditures—with their 14 percent of GNP—while the big 77 percent of our GNP that goes into private spending is a bystander. And because controllable Federal civilian spending is concentrated in aid to cities and the poor, the bulk of the pressure is exerted on about 5 percent of our GNP. When defense goes down, efforts to assist the cities and the poor can go up. When defense goes up, we seem to expect the belt-tightening to be concentrated in these social programs.

The paradox works both ways. In 1964 and 1965, the declining defense budget was a key catalyst in producing Lyndon Johnson's magic compound of great new social programs, tax cuts, and tight control on the total of the Federal budget. Once the Vietnam buildup began, however, the same paradox squeezed nondefense spending and yet generated complaints about reckless Government civilian spending even though increases in nondefense programs remained well within the bounds of the normal growth of Federal revenues. We have had major increases in Social Security programs during the Vietnam period—most notably the initiation of Medicare. But these were financed by additional contributory taxes that were adopted for the express purpose, and they did not add to fiscal stimulus. Other nondefense outlays of the Federal Government rose by \$21 billion during the past three and a half years. Along a non-inflationary high employment growth track, with no changes in tax rates, Federal revenues would have risen nearly \$35 billion during that period. Thus if defense purchases had continued the gradual upcreep of the early 1960's, there would have been plenty of room for additional Federal civilian spending or tax reductions, or both.

¹ Crawley lectures delivered at the University of Pennsylvania, April 28–30, 1969. The manuscript will be published (after revision) by the Brookings Institution. The author is Senior Fellow, Brookings Institution. The views expressed are the author's and not necessarily those of the officers, trustees, or other staff members of the Brookings Institution.

This paradox of allocation has social as well as economic consequences. It is, I submit, no coincidence that the leaders of the civil rights movement were among the earliest opponents of the Vietnam war. It is no coincidence that the attack on the "military-industrial complex" is being led by the proponents of increased efforts in the war on poverty.

Appropriately, the threat of holocaust in our cities as a result of internal strife and injustice is being recognized as a greater and more disturbing danger than that of nuclear holocaust. Appropriately, the public is casting a critical eye on the efficiency of defense programs in order to make room for fighting the battle on the home front for a truly united society. Appropriately, the judgments of military experts in uniform are no longer being treated with sanctity. The climate is changing dramatically. It is gratifying that the claims of the Joint Chiefs on resources are no longer viewed as absolutes any more than are the claims of the Commissioner of Education. It is gratifying that the halos are coming off the military.

But I don't want to see the halos replaced with horns. The military-industrial complex is no worse—as well as no better—than most of the interest groups that operate legitimately in our pluralistic system. To be sure, business firms with products to sell the Defense Department are enthusiastic—sometimes over-enthusiastic—about their merchandise, and so are business firms which sell products to the Bureau of Public Roads and the Department of HUD. To be sure, generals want to be certain—perhaps too certain—that they have the manpower and the equipment to do their job, and so do the Director of OEO and the Commissioner of Education. There is as much of a "socio-urban complex" as a military-industrial complex in our society, and we need both. The trouble with our past record lies in the way public opinion and political procedures have elevated the military-industrial group to a sanctified position. It is not that they have behaved worse than other groups, but that they have been treated so much better.

It would be bad economics and bad politics for our national defense effort to be cast as the one and insuperable barrier to progress on the home front. And it would be bad economics and bad politics for enthusiasts about full economic opportunity and urban development—among whom I include myself—to react with an automatic opposition to any new expenditure for national security. Social progress at home and effective national security are compatible; indeed they are both essential.

I have no fundamental solution for this political problem. But I do have one suggestion which could help give us a more rational, calm appraisal and evaluation of the military budget of our Nation, at least for the next few years. The existence of the tax surcharge enables us to balance changes in the military budget against private-sector butter rather than against public-sector butter. Let us pay for extra defense programs by taxes rather than by squeezing Federal non-defense programs. And let us distribute the benefits of lower defense spending through tax reductions.

This requires that we decide in advance as a Nation how much we wish to channel into priority social programs. Given the urgency of our social needs, it would seem essential—indeed perhaps too modest—to earmark the full fiscal dividend resulting from economic growth for public civilian uses. That would mean a growth of revenues of \$10 to \$15 billion a year available for public civilian needs. That annual increment would have to finance some built-in general increases in Federal workloads, and it would have to be guarded against proposals for expanding public works and subsidy programs that are not at the top of society's priority list. It would then give us some important elbow room for manpower training and job programs, income maintenance, education, health, and urban development. Some of the funds might be used in the form of revenue-sharing with States and localities or through tax incentives, if they can be designed efficiently.

Once the decision is made to put the fiscal dividend into public civilian uses, the level of tax rates must be geared to the size of the military budget in order to maintain a responsible fiscal policy. Barring surprises in private demand that might make us wish to have a particularly restrictive or stimulative fiscal policy for reasons of economic stabilization, we should want the tax surcharge to be gradually phased out as defense spending declines below its current \$80 billion level. Algebraically, we would want to set the surcharge to yield revenues approximately equal to the difference between \$80 billion and defense spending. The sur-

charge would disappear when defense outlays were reduced to less than \$70 billion. If, on the other hand, defense spending requirements exceeded \$80 billion, the surcharge would be raised above its current level of 10 percent.

This procedure would change the nature of the tradeoff by bringing private expenditures into the picture. Taxpayers would recognize that decisions to increase or decrease defense spending would mean decisions to live with higher taxes or to lower them. We would reduce the intolerable pressures on our anti-poverty effort, remove the senseless premium on knocking down the defense budget in order to finance anti-poverty programs, and end the absurd pitched battle between internal social welfare and external national security.

Chairman PROXMIRE. If we can cut the defense budget by \$12 billion, I think not only would you have a similar effect on the budget, but you would have a far more salutary effect on inflation, for many, many reasons, because Federal spending, according to the testimony we have had from competent economists, has a substantially greater effect and more immediate effect and a more comprehensive effect on slowing inflation than a tax increase has.

Mr. CALIFANO. And at the same time you would preserve the growth dividend out of the economy for domestic needs.

Chairman PROXMIRE. I was fascinated by your reference to Gibbon and Toynbee. I think that was most useful. We have had other people approach that notion, but it hasn't been expressed in as scholarly a fashion. And it is good to get that.

I note your argument that the United States would in the long run be buying more national security if we divert some of our current military expenditures to programs which would increase the productiveness and resourcefulness of our people.

Would you, for the committee, elaborate the reasons why such a reallocation of resources would tend to make us more secure, say, 20 years from now, than if these resources continue to be spent on military hardware?

Mr. CALIFANO. I think, Mr. Chairman, we face today in the racial area what is clearly an accumulation of problems of generations. We face in the cities area what is an accumulation of the failure to deal with problems immediately after World War II, and particularly in the 1950's. And the result is, I personally believe, a weakening of our whole social structure. I think if we persist in neglecting to deal with these problems, we will be endangering our national security at home. For example, I mentioned the suburbs. If you drive from New York to Long Island City, and you saw Long Island City in 1945 or 1947, and you look at it today, there is a staggering difference. The same thing is happening there that happened in New York City from 1947-48 to the present. And as our cities erode, in a sense our society erodes.

Chairman PROXMIRE. I think that is an excellent point. And you do fear the possibility of the kind of unrest in the cities that could be as dangerous to our national security as a foreign threat. In addition, however, isn't it true that our strength or our weakness in military security, strictly military security, depends more heavily on the skill, the training, the education, the competence of our people than any other single national resource, that to the extent that we have failed to do the kind of job in our equipment and in our weapons

systems in the last few years, to the extent that we don't have people competent enough to handle submarines and planes, and so forth—and Admiral Rickover and others told us that we are falling short educationally—it is an educational problem, and to the extent that we don't have sufficient resources here we not only weaken ourselves in all these other areas, but we weaken ourselves as a military force?

Mr. CALIFANO. Yes, I agree with that completely, Mr. Chairman. And I think we can have both. I think we can have the kind of military security we need. I don't mean to belittle that and say that it is irrelevant, but I do think we have got to start investing those kinds of talents, the kind of talent that can be put together to discover over-the-horizon radar, and the kind of productive talents that can mass-produce helicopters and weapons, to begin mass-producing houses, for example.

Chairman PROXMIRE. Mr. Conable?

Representative CONABLE. Thank you, Mr. Chairman.

Mr. Califano, I am grateful to you for giving us the benefit of your experience also. I am interested in the use of your word "commitment" with respect to domestic program. And I would like to explore that a little with you. Some of our foreign commitments—most of them, as a matter of fact—involve very specific types of commitments, do they not, treaties entered into and solemnly ratified by the Senate, and so forth, and requiring very specific response to certain contingencies abroad, isn't that correct?

Mr. CALIFANO. Yes, sir.

Representative CONABLE. And many of the commitments you are discussing with respect to domestic matters involve hopeful language in the preambles of bills which must be read in their entirety to determine the extent of the real commitment involved. I know we have had a tendency to promise the moon with a fence around it and to deliver 35 cents. But certainly in the process of determining the extent of the commitment we do have to look at the entire thing and not just the hopeful words of the preamble, which you have quoted here in many cases, isn't that correct?

Mr. CALIFANO. Yes, sir. But some of those bills contain very specific followthroughs on those commitments.

Representative CONABLE. And certainly some of our domestic commitments are also very specific, such as the commitment to pay the interest on our national debt. We can't very well go back on that kind of commitment, can we?

Well, I suppose the question I am asking is, do you see any difference in the degree of commitment involved in these types of commitment? In some occasions there is quite a substantial difference in the degree of commitment, is there not?

Mr. CALIFANO. Yes, sir.

But I would like to try and make this point. This country is a representative democracy, and the Congress, the national Congress, is the institution which really reflects the will of the people. President Johnson used to drive that home to all of us all the time. He would say, "I will not sign an Executive order on a fair housing bill, because

we need a national commitment, and the place where you get the national commitment in the United States is in the Congress."

Now, the people of this country look at just the words from laws that were passed by this Congress, that are supposed to represent a national commitment, and wonder whether those words mean anything. They look at something like the housing act that says all substandard housing should be wiped out. Two years later—last year we passed another housing act that says the same thing. And they ask, what action has been taken?

I think it is precisely that kind of thing that creates enormous difficulty for the radical young kids that say, now, representative democracy is a hypocritical institution. Moreover, the Congress, the whole Congress, acts on those laws, both House and Senate. And some of the foreign commitments I mentioned, to the extent that there is ratification by the Senate are acted on by only one House of Congress. Take a situation like Spain; there isn't even a treaty, as I understand it, from what I have read of Senator Symington's hearings. I think a strong argument can be made that in the commitments at home, we have in that sense more of the force of a national commitment than some of these commitments abroad.

Representative CONABLE. I don't disagree with the fact that we have commitments at home too. But the fact is that the Nixon administration has fallen heir to a great many commitments, both abroad and at home. And you are certainly not advocating that we abrogate the commitments abroad, nor is it within our power to do it in every case.

You are simply, I believe, if I read your testimony right, asking that we try to develop, and to revise and to review these commitments with an eye toward creating a better balance, and toward acknowledging the fact that commitments at home are important too.

Mr. CALIFANO. That is correct, sir. But take President Nixon's statement about skeptics in which he said, we must do both. He said the idealist will do both, we will meet our commitments abroad and will meet our commitments at home. I thoroughly agree with that statement. We must do both. But then you compare that, for example, with a recommendation to reduce the surcharge for the last half of fiscal 1970, to 5 percent, when the need for funds is so desperate. It is that kind of action that creates the problem as to whether or not the rhetoric of your commitment is going to be backed by the realities, the resources that are necessary to meet it. That is the point I am trying to make with respect to commitments.

Representative CONABLE. But I want to be sure you are not saying that they are simply a trade off. Commitments are something that have to be honored, to the extent that they are specific.

Mr. CALIFANO. Absolutely, at home and abroad.

Representative CONABLE. I agree with that.

Now, let me ask you this, sir.

You heard the question I asked of Secretary Udall. In your experience at White House organization during the Johnson-Kennedy administration was there an effort within the staff to retain an over-

view, or did you tend to fragment along the same lines as we do here in Congress, becoming advocates for special types of programs, because of your expertise or because of your function in the White House?

Is there any effort made in traditional executive branch organization at the top to preserve the overview function other than in the person of the President himself.

Mr. CALIFANO. We did, at least in my judgment, and I may be reflecting my own personal bias now, by the end of 1967 have an overview with respect to civilian programs. So, with respect to the fiscal 1969 and 1970 budgets in the domestic area of the Government, exclusive of the Atomic Energy Commission, we did, I think, have something of a capability to make rough kinds of trade offs among civilian programs. We were reaching a point where we could say something like, it may be more important this year to train an additional 200,000 of the hard core unemployed than to go forward with another 250 child care health centers. We could make that kind of a judgment in a very rough way because of two things. One, we were beginning to feel, to some degree, the impact of an office of systems analysis set up inside the budget bureau. And secondly, because my own staff had grown to about six people. And through those six people, we were reviewing most of the social domestic programs. So, at that time, budget director Zwick and I were looking at least at all the programs in that area. It was quite different, vis-a-vis, the military situation, as Congressman Moorhead has pointed out.

Representative CONABLE. One last point. I am also interested Mr. Okun's suggestion, because this does imply that we don't have an automatic trade off between the defense and domestic programs. I realize that there is some element of trade off there inevitably, simply because of the limited resources with which we have to deal. Is Mr. Okun's suggestion embodied in any particular document?

Mr. CALIFANO. Yes, it is, in a lecture that he made at the University of Pennsylvania. If you would like it I can get the lecture and send it to you.

Representative CONABLE. One of our problems of course has been the sense of trade off. And perhaps as a practical matter it is going to be still there, because of the reluctance of the American people to pay taxes they don't feel necessary, an understandable reluctance.

But certainly that is an interesting suggestion, and interesting approach. To avoid the kind of thing that has brought up to this hearing; namely, a sense of disproportion in our national concerns.

Thank you.

Chairman PROXMIRE. Mr. Moorhead?

Representative MOORHEAD. Thank you, Mr. Chairman.

It seems to me, Mr. Califano, that in your use of the word commitments you are making the rather shocking statement that commitments to Americans should be considered just as sacred as commitments to foreigners, is that it?

Mr. CALIFANO. That is correct.

Representative MOORHEAD. Does that make you—do you now consider yourself a new isolationist?

Mr. CALIFANO. No, I don't, Mr. Moorhead, not in any respect at all. Representative MOORHEAD. Thank you. I didn't consider you that either.

Mr. Califano, I was interested in your recommendation to establish within the executive branch of the Federal Government a mechanism capable of developing and projecting 5-year costs of domestic programming decisions in relation to military program decisions. I understand that 2 years ago a resource planning staff was set up in the Bureau of the Budget to perform this objective, is that correct?

Mr. CALIFANO. We set up a staff in the Budget Bureau—it is the same system analysis type staff I was mentioning—in the hope that we could reach this point. We never reached this point. And one of the reasons why I would set this office up outside the Budget Bureau is that I think the Budget Bureau is consumed with an enormous and increasing number of day-to-day operating and coordinating functions in addition to just making up the budget. I also would place it outside the Budget Bureau, because I think when Secretary McNamara separated systems analysis from the comptroller's office in the Pentagon, and it worked better that way. These people have got to be removed from the day-to-day problems and decisionmaking.

Representative MOORHEAD. But until that new office was established, or could be established, don't you think they should have continued this resource planning staff within the bureau? And I understand it has been terminated within recent months.

Mr. CALIFANO. I didn't know that. Surely I would have continued it and tried to make it as strong as possible. To get an idea of how long it takes to get this done, all of that came out of a memorandum that the President signed in August 1965, asking the departments and agencies to set up systems analysis staffs throughout the government as well as in the Budget Bureau.

Representative MOORHEAD. The thing that concerns me, Mr. Califano, with the office of program development, is, would you be establishing a climate where you could have trade off with the military, or are you not just doing in a more efficient way what we have been doing before, and that is trading off only in the domestic section of the budget.

Mr. CALIFANO. Why I would have it come in through the Budget Bureau is to make the civilian/military tradeoff. I think in practice—I realize every President is different—but in the practical day-to-day operations of making those kinds of decisions, they are going to be made by the budget director, the President, the two or three people on the White House staff that he wants to talk to, the one or two Cabinet officers whom he feels have a broader view, and the Chairman of the Council of Economic Advisers. And what I felt was that it was important to get to those people, these kinds of projections on both sides of the ledger, the military side and the domestic side.

Representative MOORHEAD. You have served both in the Defense Department and in the White House. Based on your experience, do you believe that the Bureau of the Budget's power vis-a-vis, the Defense Department should be increased in the direction of the kind

of power that it has vis-a-vis the other agencies of the Government?

Mr. CALIFANO. My own judgment is yes, that it should be. And I would like to make one other point.

I think that Secretary McNamara was such an incredibly able Secretary of Defense in the area of military spending—

Representative MOORHEAD. And very budget minded.

Mr. CALIFANO. And very budget minded—that you had an extraordinary situation in the Government for 5 or 6 years. It was probably impossible to find more stuff to cut out of that budget.

But you can't always assume every Secretary of Defense is going to be a second McNamara, and as interested in those areas as he was, and as able to do something about it. And it is because of that that I would increase the role of the Budget Bureau in this area.

Representative MOORHEAD. Thank you very much, Mr. Califano.

And thank you, Mr. Chairman.

Chairman PROXMIRE. Mr. Califano, I just have one question. When you were in the White House, President Johnson criticized those who were criticizing the Vietnam war as "cussers and doubters."

And just 2 days ago the present President of the United States made a speech in which he said it was open season on the Armed Forces, that military programs are ridiculed as needless, if not deliberate waste. These speeches by the President of the United States have about as profound an effect on the attitude of our people and the attitude of Congress as any action that any human being can take, in my view.

All the country hears it, and the President has enormous prestige and force. What do you think we can do, in view of your constructive attitude, toward an open debate on the appropriations to the Armed Forces?

What do you think we can do to protect against this kind of statement intimidating our people, intimidating the Members of Congress and intimidating the public generally?

Mr. CALIFANO. I think Mr. Chairman, I would like to finesse your question to some degree, for obvious reasons. I don't know whether Congress has ever held a hearing like this before, at least in the time I have been in Washington I haven't noticed any. I think that this kind of hearing is essential, and probably essential on a continuing basis, at least annually, the way you review the economy through the Joint Economic Report. Because just as the Joint Economic Report is made up within the Federal Government, so must of these domestic and military decisions on budgets are going to be made up within the Federal Government, without any public debate at that point in time. I think one of the major places to hold the debate is right here in Congress, and I think hearings like this can have as profound an influence on the American people as statements by those who would not want to have this kind of public debate.

Chairman PROXMIRE. I can see why some would not want to have this kind of public debate, or questioning of it, it is always uncomfortable or difficult to those who have a military budget and want to defend it, whether it is President Johnson or President Nixon, who

have not had it questioned in detail, it is unpleasant to have embarrassing amendments brought up that might pass, and create a record in which you can have this kind of rational probing discussion of the military budget.

But I must say that I am very concerned about this impact. I think that when people become President of the United States they don't really realize what tremendous impact they have in everything they say and everything they do. I don't mean to be particularly critical of either President Johnson or President Nixon. But this is something that I would hope that our Presidents would be more aware of.

Congressman CONABLE?

Representative CONABLE. Thank you, Mr. Chairman.

I would like to say that I don't feel a bit intimidated, even if Senator Proxmire does. If you would like protection, sir—

Chairman PROXMIRE. I made it clear that I am not intimidated.

Representative CONABLE. I feel as a matter of fact the entire Congress is—

Chairman PROXMIRE. Not the entire Congress. There were some who thought that the President's statement was a fine statement.

Representative CONABLE. All I know is what I read in the paper about what transpired outside this committee, sir. But I don't see any evidence of a sullen slinking away on the part of Congress from this particular issue, judging from the headlines in the *Washington Post*, or the *Washington Star* last night.

Chairman PROXMIRE. I think that is the immediate reaction. But I do think that this speech of President Nixon's is going to have effect, it is bound to have effect, especially if he persists in this kind of an attitude and kind of expression, it is bound to have an effect in persuading some Members of Congress that feel, well, what is the profit, what is the use in sticking our necks out in something like this which is so politically dangerous, especially members, frankly of your party, although I certainly wouldn't include Congressman Conable.

Representative CONABLE. Thank you, Senator. I trust your party will not try to intimidate the President.

Chairman PROXMIRE. The President has nothing to fear.

Representative CONABLE. I believe that none of us have anything to fear from dialogue, and I think dialogue belongs in this Congress. The President is participating in that dialogue, and I think he is doing it in a constructive way.

Let me ask you a few more questions, Mr. Califano. First of all, your interest in systems analysis in other areas of government beside the Defense Department raises one question in my mind. Do you think systems analysis has been tremendously successful in the Defense Department where it was first started by Secretary McNamara? And if so, how do you align this opinion with the disclosures about the C-5A and some of the other overruns that have been rather staggering and rather disappointing in view of Secretary McNamara's reputation in this field.

Mr. CALIFANO. I am not up to date on the recent numbers and what have you. My own judgment is that it can easily be shown that Secretary McNamara, with the combination of the reorganization in terms of getting the boxes in the right places in the Pentagon, and the provision of common services, supplies, intelligence communications, and the systematic analysis of various ways to meet various threats, as the result of what he has done in those areas, this country, with all the money it is spending on defense, is spending billions less than otherwise would have spent.

Now, when you go into the specifics of C-5A as a plane might cost when they first started out to do it, I am not familiar enough with it to answer that question. I have been away from the Pentagon for 6 years.

Representative CONABLE. I don't intend to pin you down on that. I think there are some questions that are to be raised here.

With respect to Professor Boulding's statement as to education and defense being trade offs, in practical effect, if not actually, I wonder how we can square that with the fact that during the time when our defense expenditures were rising very sharply during the Johnson administration and, before, the total expenditure for Federal education programs went up consistently every year? In 1964 it was 3.1 billion; in 1965 it was 3.6; in 1966 it was 5.7; in 1967, 7.3; in 1968, 8.8; and the estimate for 1969 is 9. It is difficult for me to figure out exactly how we can come to the conclusion, in view of the comparative stability of many other programs—that education is bound to suffer when defense expenditures are high.

Mr. CALIFANO. I don't know how he reached his figures or what he did. I do not know that at least while I was at the White House there wasn't any conscious trade off of a dollar for education versus every dollar that was increase for defense. But I would like just—I realize that these expenditures increased for education, health and others at the same time that the war was going on. But also if you look at the current, you have the so-called unit program going like this and the physical programs increasing very slightly over that 4-year period. We are not spending as high a percentage of our gross national product, absent Vietnam, on problems at home and defense as we were 2 years ago.

Chairman PROXMIRE. Would the Congressman yield on that point?

Representative CONABLE. Yes.

Chairman PROXMIRE. I am informed by the staff that the Boulding statement was based on the study made by Professor Russett of Yale in which he considered all educational expenditures. And of course the impact on State and local is more than the impact on Federal expenditures, because they are much larger.

In the second place, in this budget the Nixon proposal cuts back HEW more in dollars in terms of expenditures than it cuts back the Defense Department. Now, you might say, that we are still increasing our spending in education, we have a growing school age population, we have inflation in education, and we have all kinds of problems. But I think it does make some sense, that there is an adverse effect on education, and we have to spend much more.

Representative CONABLE. I am sure there is an adverse effect on most everything.

I have one last request, Mr. Chairman. I regret the extent to which we occasionally break down into debating the President's speech. I would like to ask if that speech could be made, in its entirety, a part of the record here, because it seems to me that then it would speak for itself.

Chairman PROXMIRE. I think that is an excellent point. Without objection the speech will be printed right after Mr. Califano's remarks in the record.

Representative CONABLE. Thank you.

Chairman PROXMIRE. Thank you, Mr. Califano for a very fine job. I can see why you are the bright young man of the Johnson administration. You did a great job up there, and you certainly did a fine job this morning.

(The speech follows:)

ADDRESS BY THE PRESIDENT AT THE COMMENCEMENT EXERCISES AT THE AIR FORCE ACADEMY, JUNE 4, 1969

For each of you, and for your parents and your countrymen, this is a moment of quiet pride.

After years of study and training, you have earned the right to be saluted.

But the members of the graduating class of the Air Force Academy are beginning their careers at a difficult moment in military life.

On a fighting front, you are asked to be ready to make unlimited sacrifice in a limited war.

On the home front, you are under attack from those who question the need for a strong national defense, and indeed see a danger in the power of the defenders.

You are entering the military service of your country when the nation's potential adversaries abroad were never stronger and your critics at home were never more numerous.

It is open season on the armed forces. Military programs are ridiculed as needless if not deliberate waste. The military profession is derided in some of the best circles. Patriotism is considered by some to be a backward, unfashionable fetish of the uneducated and unsophisticated. Nationalism is hailed and applauded as a panacea for the ills of every nation—except the United States.

This paradox of military power is a symptom of something far deeper that is stirring in our body politic. It goes beyond the dissent about the war in Vietnam. It goes behind the fear of the "military-industrial complex."

AMERICA'S PEACEKEEPING ROLE

The underlying questions are really these:

What is America's role in the world? What are the responsibilities of a great nation toward protecting freedom beyond its shores? Can we ever be *left* in peace if we do not actively assume the burden of *keeping* the peace?

When great questions are posed, fundamental differences of opinion come into focus. It serves no purpose to gloss over these differences, or to try to pretend they are mere matters of degree.

One school of thought holds that the road to understanding with the Soviet Union and Communist China lies through a downgrading of our own alliances and what amounts to a unilateral reduction of our arms—as a demonstration of our "good faith."

They believe that we can be conciliatory and accommodating only if we do not have the strength to be otherwise. They believe America will be able to deal with the possibility of peace only when we are unable to cope with the threat of war.

Those who think that way have grown weary of the weight of free-world

leadership that fell upon us in the wake of World War II, and they argue that we are as much responsible for the tensions in the world as any adversary we face.

They assert that the United States is blocking the road to peace by maintaining its military strength at home and its defense forces abroad. If we would only reduce our forces, they contend, tensions would disappear and the chances for peace brighten.

America's presence on the world scene, they believe, makes peace abroad improbable and peace in our society impossible.

We should never underestimate the appeal of the isolationist school of thought. Their slogans are simplistic and powerful: "Charity begins at home." "Let's first solve our own problems and then we can deal with the problems of the world."

This simple formula touches a responsive chord with many an overburdened taxpayer. It would be easy to buy some popularity by going along with the new isolationists. But it would be disastrous for our nation and the world.

THE DIRECTION AMERICA MUST TAKE

I hold a totally different view of the world, and I come to a different conclusion about the direction America must take.

Imagine what would happen to this world if the American presence were swept from the scene. As every world leader knows, and as even the most outspoken of America's critics will admit, the rest of the world would be living in terror.

If America were to turn its back on the world, a deadening form of peace would settle over this planet—the kind of peace that suffocated freedom in Czechoslovakia.

The danger to us has changed, but it has not vanished. We must revitalize our alliances, not abandon them.

We must rule out unilateral disarmament. In the real world that simply will not work. If we pursue arms control as an end in itself, we will not achieve our end. The adversaries in the world today are not in conflict because they are armed. They are armed because they are in conflict, and have not yet learned peaceful ways to resolve their conflicting national interests.

The aggressors of this world are not going to give the United States a period of grace in which to put our domestic house in order—just as the crises within our society cannot be put on a back burner until we resolve the problem of Vietnam.

Programs solving our domestic problems will be meaningless if we are not around to enjoy them. Nor can we conduct a successful policy of peace abroad if our society is at war with itself at home.

There is no advance for Americans at home in a retreat from the problems of the world. America has a vital national interest in world stability, and no other nation can uphold that interest for us.

We stand at a crossroad in our history. We shall reaffirm our destiny for greatness or we shall choose instead to withdraw into ourselves. The choice will affect far more than our foreign policy; it will determine the quality of our lives.

A nation needs many qualities, but it needs faith and confidence above all. Skeptics do not build societies; the idealists are the builders. Only societies that believe in themselves can rise to their challenges. Let us not, then, pose a false choice between meeting our responsibilities abroad and meeting the needs of our people at home. We shall meet both or we shall meet neither.

This is why my disagreement with the skeptics and the isolationists is fundamental. They have lost the vision indispensable to great leadership. They observe the problems that confront us; they measure our resources; and they despair. When the first vessels set out from Europe for the New World, these men would have weighed the risks, and stayed behind. When the colonists on the Eastern seaboard started across the Appalachians to the unknown reaches of the Ohio Valley, these men would have calculated the odds, and stayed behind.

MAGNIFICENT CONCEPTIONS

Our current exploration of space makes the point vividly: Here is testimony to man's vision and man's courage. The journey of the astronauts is more than a technical achievement; it is a reaching-out of the human spirit. It lifts our sights; it demonstrates that magnificent conceptions can be made real.

They inspire us and at the same time teach us true humility. What could bring home to us more the limitations of the human scale than the hauntingly beautiful picture of our earth seen from the moon?

Every man achieves his own greatness by reaching out beyond himself. So it is with nations. When a nation believes in itself—as Athenians did in their golden age, as Italians did in the Renaissance—that nation can perform miracles. Only when a nation means something to itself can it mean something to others.

That is why I believe a resurgence of American idealism can bring about a modern miracle—a world order of peace and justice.

I know that every member of this graduating class is, in that sense, an idealist.

In the years to come, you may hear your commitment to America's responsibility in the world derided as a form of militarism. It is important that you recognize that strawman issue for what it is: The outward sign of a desire by some to turn America inward—to have America turn away from greatness.

I am not speaking about those responsible critics who reveal waste and inefficiency in our defense establishment, who demand clear answers on procurement policies, who want to make sure a new weapons system will truly add to our defense. On the contrary, you should be in the vanguard of that movement. Nor do I speak of those with sharp eyes and sharp pencils who are examining our post-Vietnam planning with other pressing national priorities in mind. I count myself as one of those.

As your Commander-in-Chief, I want to relay to you as future officers of our armed forces some of my thoughts on these issues of national moment.

I worked closely with President Eisenhower. I know what he meant when he said ". . . we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex."

Many people conveniently forget that he followed that warning with another: "We must also be alert to the equal and opposite danger that public policy could itself become the captive of a scientific-technological elite."

And in that same Farewell Address, President Eisenhower made quite clear the need for national security. As he put it: "A vital element in keeping the peace is our military establishment. Our arms must be mighty, ready for instant action, so that no potential aggressor may be tempted to risk his own destruction."

THE LESSON OF HISTORY

The American defense establishment should never be a sacred cow, nor should the American military be anybody's scapegoat.

America's wealth is enormous, but it is not limitless. Every dollar available in the Federal Government has been taken from the American people in taxes. A responsible government has a duty to be prudent when it spends the people's money. There is no more justification for wasting money on unnecessary military hardware than there is for wasting it on unwarranted social programs.

There can be no question that we should not spend "unnecessarily" for defense. But we must also not confuse our priorities.

The question in defense spending is "*how much is necessary?*" The President of the United States is the man charged with making that judgment. After a complete review of our foreign and defense policies I have submitted requests to the Congress for military appropriations—some of them admittedly controversial. These requests represent the minimum I believe essential for the United States to meet its current and long-range obligations to itself and to the free world. I have asked only for those programs and those expenditures that I believe are necessary to guarantee the security of this country and to honor our obligations. I will bear the responsibility for these judgments. I do not consider my recommendations infallible. But if I have made a mistake, I pray that it is on the side of too much and not too little. If we do too much, it will cost us our money; if we do too little, it may cost us our lives.

Mistakes in military policy can be irretrievable. Time lost in this age of science can never be regained. I have no choice in my decisions but to come down on the side of security. History has dealt harshly with those nations who have taken the other course.

A CREDO FOR OUR NATION'S DEFENDERS

In that spirit, let me offer this credo for the defenders of our nation:

I believe that we must balance our need for survival as a nation with our need for survival as a people. Americans, soldiers and civilians, must remember that defense is not an end in itself—it is a way of holding fast to the deepest values known to civilized man.

I believe that our defense establishment will remain the servant of our national policy of bringing about peace in this world, and that those in any way connected with the military must scrupulously avoid even the appearance of becoming the master of that policy.

I believe that every man in uniform is a citizen first and a serviceman second, and that we must resist any attempt to isolate or separate the defenders from the defended. In this regard, those who agitate for the removal of the ROTC from college campuses only contribute to an unwanted militarism.

I believe that the basis for decisions on defense spending must be "what do we need for our security" and not "what will this mean for business and employment." The Defense Department must never be considered a modern-day WPA: There are far better ways for government to help ensure a sound prosperity and high employment.

I believe that moderation has a moral significance only in those who have another choice. The weak can only plead magnanimity and restraint gain moral meaning coming from the strong.

I believe that defense decisions must be made on the hard realities of the offensive capabilities of our adversaries, and not on our fervent hopes about their intentions. With Thomas Jefferson, we can prefer "the flatteries of hope" to the gloom of despair, but we cannot survive in the real world if we plan our defense in a dream world.

I believe we must take risks for peace—but calculated risks, not foolish risks. We shall not trade our defenses for a disarming smile or honeyed words. We are prepared for new initiatives in the control of arms, in the context of other specific moves to reduce tensions around the world.

I believe that America is not about to become a Garrison State, or a Welfare State, or a Police State—because we will defend our values from those forces, external or internal, that would challenge or erode them.

And I believe this above all: That this nation shall continue to be a source of world leadership and a source of freedom's strength, in creating a just world order that will bring an end to war.

Let me conclude with a personal word.

A President shares a special bond with the men and women of the nation's armed services. He feels that bond strongly at moments like these, facing all of you who have pledged your lives, your fortunes and your sacred honor to the service of your country. He feels that bond most strongly when he presents a Medal of Honor to an 8-year-old boy who will not see his father again. Because of that bond, let me say this to you now:

In the past generation, since 1941, this nation has paid for fourteen years of peace with fourteen years of war. The American war dead of this generation has been far greater than all of the preceding generations of Americans combined. In terms of human suffering, this has been the costliest generation in the two centuries of our history.

Perhaps this is why my generation is so fiercely determined to pass on a different legacy. We want to redeem that sacrifice. We want to be remembered, not as the generation that suffered, but as the generation that was tempered in its fire for a great purpose: to make the kind of peace that the next generation will be able to keep.

This is a challenge worthy of the idealism which I know motivates every man who will receive his diploma today.

I am proud to have served in America's armed forces in a war which ended before members of this class were born.

It is my deepest hope and my belief that each of you will be able to look back on your career with pride, not because of the wars in which you served but because of the peace and freedom which your service made possible for America and the world.

Chairman PROXMIRE. The next witness is really in the eye of the hurricane, Mr. Pentagon.

Mr. Moot, you are representing the Defense Department in these hearings. We have another witness coming up representing the Pentagon later on. You are certainly one of the two principal witnesses, and we are very, very happy to have you. As I said, you have an excellent reputation here. And we know of your conduct in the Small Business Administration. And you are warmly recommended by Secretary Laird and Secretary Packard as the best man to speak before this committee.

STATEMENT OF HON. ROBERT C. MOOT, ASSISTANT SECRETARY OF DEFENSE (COMPTROLLER)

Mr. Moor. Thank you, Mr. Chairman. I think I appreciate the opportunity of being here, at least I have always gained by appearing before the committees of which you have been a member.

And if you would like, I will go right ahead with my statement, or if you prefer, I will summarize it.

Chairman PROXMIRE. It is 12 o'clock. Your statement is 34 pages long. I think it would probably be best if we placed the entire statement in the record, and if you would highlight it, we would appreciate it.

Mr. Moor. I think I can perhaps be most responsive to the areas of interest of the committee if I attempt to cover several points, first of all, the size, cost and trend of the Defense budget as it relates to the Federal budget from 1964 to 1970, and also as those budgets compare to the gross national product.

I think your area of interest also covers how we determine military budget requirements.

Your area of interest also covers the defense budget from a viewpoint of congressional control.

I would like also to tell you the system we use in the Defense Department for the allocation of resources and determining priorities within programs, and also something about the utilization process.

In so doing I would like to preface my remarks by saying, I have no intent or desire to appear defensive in making these points. I realize that this committee has been very critical of defense management practices, particularly in the procurement area. And I would like you to know that both Secretary Laird and Secretary Packard recognize a considerable improvement is necessary in the Defense Department, and that they intend to institute improvements, some of which I would like to discuss this morning while we are talking about our system.

First of all, I would like to put the defense budget in perspective with the total budget and the gross national product. As a percentage of the gross national product, military outlays reached their post-World War II low in 1948, at which point they were 4.5 percent. They reached a high during the Korean war when they were 13.4 percent.

The Vietnam high was 9.5 percent, reached in 1968.

The 1970 budget as revised by President Nixon, and without the Government-wide July 1, 1969 pay raise, is projected at 8.1 percent of the gross national product, below the pre-Vietnam year of 1964, and well below the levels of 1950's and early 1960's, and certainly far below the level of Korea.

Comparing the military budget with total Federal budget outlays is another means of comparison in terms of evaluating the economic impact of the Federal budget. The percentage of the military budget to the total Federal budget dropped steadily until 1965, when it was reversed by Vietnam and military outlays started to climb. They reached a 42.5 percent of the total budget in 1968. They are now declining again. And for 1970, on the same basis, as I mentioned before, the percentage is 39.8 percent. Again, this is well below the pre-Vietnam year of 1964.

Now, it is worthwhile to compare the defense outlays versus non-defense outlays in the Federal budget. From 1964 to 1970 military outlays rose about \$27.1 billion. Other outlays increased by \$47.2 billion. From 1968 to 1970 military outlays decreased slightly. The other outlays in the Government increased by \$12.4 billion.

All of these figures are of course reflected on the table, Mr. Chairman.

Now, the figures I have used so far have been absolute figures without adjustment for either price or wage inflation, or without recognition of any separate treatment for operations in Southeast Asia. We do have on table 2 such a breakout. And you will note that on that table, derived from the President's submission to the Congress, the costs or the outlays for Southeast Asia are forecast at \$24.9 billion for 1970.

Also separated on table 2 are the outlays for military retirement, because these do not contribute to current military readiness. These are forecast at \$2.7 billion for 1970. The remaining outlays, which reflect the nonwar, nonretirement costs for defense, are forecast at \$50.3 billion, an increase of \$700 million in current dollars from the 1964 level.

If we allow for pay and price increases for 1964, our nonwar budget and nonretirement budget has declined sharply from the \$49.6 billion in 1964 to \$41.8 billion in 1970, a drop of \$7.8 billion in constant 1964 dollars.

Now, it will also be noted on this table that our nonwar budget consumes a sharply declining percentage of GNP and of the total budget. In these terms price and wage deflators apply. The defense budget is 27.1 percent of the Federal budget total, lower than the lowest year since World War II, the nonwar year of 1948, and the nonwar budget is 5.5 percent of gross national product compared with the 4.5 percent in 1948.

These are the basic statistics I would like to give first for perspective, Mr. Chairman. And I would like now to move to the factors that determine the size of the military budget. And again as a preface to this, by using the statistics I have used I do not want to imply that the 1964 level of defense expenditures was the right level of defense

expenditures. I am simply tracing the trend of expenditures since that time.

The defense budget is fundamentally the product of policies that are formulated and decisions which are made externally to the Department of Defense. The Department exists solely to implement the objective of national security. Now, national security policy is an articulation of the President, working with the National Security Council, and with the advice and consent of the Congress.

The overall U.S. defense posture, including forces and bases overseas, and the military assistance program, is determined almost directly by a careful assessment of the international situation by the National Security Council.

We must not only consider the threats to our national security that exist today, but these must be forecast into the future. And this forecast must therefore provide adequate lead time to develop and produce systems and forces that will neutralize these future threats.

The United States currently has 1,171,000 military personnel in foreign countries and areas, slightly over 1,000,000 ashore, and 103,000 afloat. Again, in terms of comparison, these figures may seem large, and they are large. But it is interesting to note that without the current heavy deployment in Vietnam the total number of military personnel overseas is about the same as it was in 1958.

I would like next, Mr. Chairman, to highlight a number of features having, I think, a direct bearing on the interests of this committee. And this is the area of controllability of the defense budget. And in making these remarks I am not implying any lack of controllability in other budgets of the executive department, I am simply making a comparison of the defense budget. For many Federal programs outlays are determined by the operation of formulas and other statutory provisions, and are not controlled through the appropriation process. For example, the President's budget for fiscal year 1970 contains the following statement:

"* * * in some cases, national priorities are arbitrarily distorted by the fact that the outlays for some Federal programs are sheltered in basic law from meaningful annual control * * *"

Now, the budget for 1970, the Presidential budget for 1970, shows that only \$20.6 billion of the civilian program outlays were relatively controllable by Congress, about 17 percent of the total. The remainder involve statutory formulas, permanent authorizations, and so forth.

The point here is that in contrast to this, the Department of Defense has relatively few programs that are uncontrollable in the same sense. Payments to retire personnel that I have already mentioned and claims are about the only areas where there would be comparability. These amount, as I mentioned before, to \$2.7 billion for retired personnel, and about \$41 million annually for claims.

And even here we come annually to Congress for appropriations for the purpose.

The point I am trying to make is that Congress can change the defense budget directly and expeditiously annually through the appropriation process in a much more direct sense and relatively much

more so than it can in the other aspects and segments of the budget.

There, I think, is another important point that the committee should be and will be interested in. And that is the impact of the carryover balances within defense as contrasted to other areas of the Government. This of course is of considerable importance in appraising the responsiveness of the budget system to a change in priorities. It is a question of timing as to how quick you can change direction if you have balances that are large.

Under statutory formulas the change in direction takes a considerably greater period of time.

The Defense Department, as is shown on our table, has 10 percent of the unobligated balances of the Federal budget, and 21 percent of the unexpended balances. This is considerably smaller than our share of the Federal budget. I think this tends to make our budget more responsive to the direction of the Congress.

And there is further a related matter of significance, particularly in an inquiry on priorities, which concerns the management of carryover balances. The questions involved concerning carryover balances in this respect are simply these. Once funds are provided by the Congress, are they routinely and more or less automatically used for the purpose for which they are appropriated, or are there effective means for changing priorities and redirecting these funds if determined necessary because of changing priorities?

In the Department of Defense there are well established, and I believe effective, procedures for reassessing priorities and reapplying resources that the Congress has provided. These changes are provided or are effected and implemented through what we called financing adjustments, which appear in the annual budget submissions for the review of the Congress, and through reprogramings. Financing adjustments of \$3.5 billion are reflected in our 1969 budget, and \$2.4 billion more in the 1970 budget.

Now, the reprogramming aspect of this is even more directly reviewed by the Congress, because we have formalized understanding with the Appropriations and Armed Services Committees of both the House and the Senate. After Congress completes action each year we reach an understanding insofar as our authorizations and appropriations are concerned as to what we will submit to Congress if we decide to change any of the planned use of the money.

Through these actions the congressional committees are advised and can deny any changes involving quantities characteristics, or cost for major items or programs.

So I think that this combination of financing adjustments and reprogramming understandings is important to your area of inquiry for two reasons.

First, it does facilitate a constant reassessment of resources and priorities in the defense program. And secondly, it provides for congressional participation and control on a current, up to the minute basis.

I would like now to spend a few minutes on the defense resource allocation process. I know this is an area that the committee has great

interest in, and has been sponsoring. This is the planning-programing-budgeting system of the Defense Department.

We follow in the Defense Department an annual planning, programing and budgeting cycle that provides for a regular and systematic review of national security objectives and related military resource requirements. The 5-year defense program is the official record of the programs that have been approved for planning by the Secretary of Defense. This 5-year program reflects the resources in terms of dollars and manpower required for the next 5 years, and the military forces and these resources are supporting for the next 8 years.

Each year the annual cycle begins with an evaluation of intelligence estimates by the National Security Council and then by the Joint Chiefs of Staff.

At this point I might interject a point I think is quite pertinent to the consideration of the committee. And that is that the National Security Council is by authorized charter, and certainly activated by President Nixon currently, to integrate domestic policy as well as military policy. Their current studies are aimed at assessing the various military strategies and the calculated costs and risks.

So I think in that sense much of what the committee is looking for is happening at the present time.

Chairman PROXMIRE. What is the membership of the National Security Council?

Mr. MOOT. The National Security Council has the President, of course, as the chairman. The members are the Vice President, the Secretary of State, the Secretary of Defense, the Director of the Office of Emergency Preparedness, and then sitting in with them as advisors are the Chairman of the Joint Chiefs of Staff and the Director of Central Intelligence.

And incidentally, I might follow up with a point that the studies that are being undertaken at the moment involve most of the major agencies of the Government. In other words, there is a distinct participation in the development of the integration of domestic and military policy.

To continue, our means of evaluating the defense resource requirement—and incidentally if it would help at all, the very last page of my statement is a graphic pictorial presentation of the process which—it might help if you were looking at it—the 5-year program then begins with the evaluation of the intelligence community which provides the Joint Chiefs of Staff an opportunity to determine whether or not the previously approved 8-year force plan and 5-year resource plan is adequate to match the threat as they now see it.

The Joint Chiefs of Staff publish their recommendations for change to update the 5-year program in what is called the joint strategic objectives plan.

This is evaluated within the Office of the Secretary of Defense, within the State Department, within the National Security Council, and of course by the military departments. It is the intent of Secretary Laird at this stage in the process to interject a fiscal constraint on this calculation in order that he may have a better assessment of the risk under

various levels of resource applications. So after determining the full requirement for forces to meet the international threat as envisaged or as evaluated by the Joint Chiefs of Staff, there will be another step. The Secretary will provide the Joint Chiefs of Staff with a fiscal constraint figure, or several, and ask which risk, which forces composition and mix do they consider are less important, or how would they rebalance the forces to meet a lower resource allocation?

This then, as you will note by the graphic illustration, moves the process through dialog between the military departments, the OSD staff, the civilian staff, and the Joint Chiefs of Staff, to the point in time where in September there is an updated program. The updated program, the first year, then becomes the budget submission by the military departments. The budget submission coincides with the first year of the program except for updated pricing. The force structure remains the same. The budget process then goes through the time frame of October through December, and you will note, there is a joint budget review with the Bureau of the Budget.

The Bureau of the Budget representatives have access to all of the data available to the OSD staff as well as additional data developed through their independent investigations. The Bureau of the Budget representatives do express opinions during the OSD budget review, but in addition maintain an independent position which they present to the Budget Director at the time the defense budget is transmitted to the Bureau.

In December discussions are held between the Director of the Bureau of the Budget and the Secretary of Defense on any areas of disagreement. After final review and approval by the President the budget is then transmitted to the Congress, and congressional hearings normally start shortly thereafter.

Again, congressional reviews of the defense budget take place over months. It is not a question of days. The hearings normally start in February or early March and last well into the summer.

Again, in the spring and in June prior to the beginning of the new fiscal year, another internal review again with the Bureau of the Budget takes place. This is the apportionment review. Annual financial plans are issued and limitations imposed due to any continuing resolutions of the Congress and appropriation action that may be either past or underway.

I would like to emphasize the fact that our planning, programing and budgeting cycle does involve a careful assessment of the threat and of our national military objectives. And the resource implications of alternative strategies are introduced, and are thoroughly studied and discussed.

Now, after funds have been provided to DOD by the Congress, it is important that we use them as efficiently and as effectively as possible. And it is in this area that Secretaries Laird and Packard have mounted a very intensive campaign to improve our practice. And I think, without criticism of the past, one of the big fallacies or the faults of the past has been the fact that the system had not reached the stage where it tracked the actual use of money against the planned

use of money. And this is true both in weapons acquisition and in the operation of the Department. What we now have and what we are putting into effect is the tracking system which will trace the utilization of resources on the same basis and in the same programs and for the same purposes as funds were justified, allocated and appropriated.

I think this is particularly important, first of all, in the operating area. Operating costs comprise some 58 percent of defense budgets. This is of course the cost of military and civilian labor, consumable supplies, and contractual services. This amounts to some \$47 billion in either 1969 or 1970.

In late 1965 a design effort was started. It is just now coming into fruition. The defense program structure, which really has about 1,200 program elements—and these are cost centers, if you will, in a business sense, but organizational entities of who is going to use money in the Defense Department. Each of these program elements will be provided in the sense of organizational entities with funds against the program which was justified, and the expense used against these programs will be reported on an accrued basis.

This will then give us answers to those basic questions, which are, who is using how much for what. This is vital to future accurate planning. And of course it is necessary always for management to compare resources consumed; that is, the input with the production or the output generated. And this is the way that Secretaries Laird and Packard are aiming at improving efficiency calculation, because this is the way that you can establish standards, and this is the way that productivity can be improved.

In this system it was necessary to take a sizable part of our cost for acquisition; namely, that for consumable repair parts, particularly in the aeronautical and sophisticated electronics area, and take them out of the procurement budgets where they were bought and provided as free issues, and put them in the inventory budgets where they have to be bought out. In other words, there is financial discipline now in our working capital funds, stock funds, and industrial funds for a large segment of material acquisition that was formerly a free issue after appropriation.

So that with these changes each of the organizational elements that I have mentioned before will now be budgeting and accounting for all of its measurable expense.

We are computerizing results and feedback of this system, so that the managers throughout the Defense Department can call up the data to evaluate the use of resources in comparison with the plan, and to help them in development of performance measurement standards for future improvement. This is in the operating area.

In the weapons acquisition area, as you have scheduled, Secretary Shillito will be here, and he will address the improvement programs in some detail in this particular area.

I would like to mention, however, the introduction of the development concept paper, which again is a planning mechanism and a programming mechanism for each of the major systems.

The threshold here for control is any system which will have a cost of \$25 million in research or an aggregate cost of \$100 million in production. This is a process whereby the program is carefully planned, with technical milestones established through development, through development engineering, through testing, through prototyping, and through production, so that before funds are released, a go or a green signal must be reached in terms of accomplishing technical milestones and properly measuring progress against the plan.

The Secretary of Defense, along with the Deputy Secretary, will be reviewing those programs where thresholds have been reached, in order to assure that better cost control is instituted in the Department.

As you know, because this committee has had a continuing interest in economic analysis, we have recently updated and expanded our instruction on economic analysis of DOD investments. We have always had some form of analysis to support investment proposals. But the revised instruction does provide written policy, and it provides ground rules, so that everyone in the Department of Defense, we hope, will find it easier to use economic analysis in daily operations.

Finally, Mr. Chairman, you asked in your letter to the Secretary that we provide the committee an outlook for the defense budget after Vietnam.

I would like now to address what we think will be the general levels of defense requirements budgetwise after Vietnam.

And if I might, I would like, in order to put the following figures I am going to cite in perspective, to quote the Secretary of Defense in his statement to which you referred in your letter. And this is a quote.

* * * even if we are successful in eliminating the war in Vietnam, our highest priority—we are still not going to come up with a drastically reduced defense budget—at least this Secretary of Defense will not recommend drastic reductions in defense spending, under presently foreseeable circumstances.

Do not misunderstand me. The American people are the ultimate bosses in this country. If they want even a \$50 billion defense budget, they can certainly get it. But a drastically reduced defense budget will not provide adequate national security in the world in which we live.

I would like to follow that up with some figures which, in order of magnitude, indicate why the Department feels that major budget cut-backs in defense are just not indicated.

Again, I will preface this, there is no attempt to predict the course of events in Southeast Asia in what I am going to say. And I am going to have to use some broad aggregates. Of course, I know that you realize that we do not develop our budget in such a macro fashion; we do it in considerably greater detail.

Chairman PROXMIER. This is on the assumption that the Vietnam war is over?

Mr. Moor. If I may, I am going to give it to you in two ways, during the transition and on the basis of post-Vietnam. If I can again use, without attempting to justify it as the right level, but picking it as the logical point to start, the prewar year of 1964. I has another advantage, in that our obligating authority at that time was quite constant.

There was \$50 billion in 1962, \$50.9 in 1963, \$50.7 in 1964, and \$50.6 in 1965.

If we start with the 1964 budget, which is \$50.7 billion, excluding again retirement, which is the one element that is relatively uncontrollable and not directly related to military readiness, the nonretirement piece of our budget prewar was \$49.5 billion. Now, the table that we have attached indicated, on I think a strategically sound and carefully traced-through price index basis, a 20.3-percent increase in wages and prices to non-Southeast Asia costs since 1964; \$20.3, if I apply it to our base of \$49.5, makes \$10 billion.

Now, payments to retired personnel, which I have separated out and treated separately, are \$1½ billion in terms of straight increase.

The July 1, 1969, pay raise, which has now been allocated by the appearance of the Director of the Budget before the Ways and Means Committee, will cost \$1.9 billion in the areas other than Southeast Asia. So I have a \$10 billion price and wage increase, I have a \$1.5 billion payment to retired personnel, and I have a \$1.9 billion fiscal year 1970 pay raise. Putting these figures together means that the 1964 program would cost about \$13.4 billion more than it did then, or about \$64.1 billion at 1970 prices and pay rates. And this allows nothing for Vietnam.

Now, on the same basis, our Vietnam authority in 1970—

Chairman PROXMIRE. May I interrupt. In 1964 we had a Vietnam operation much smaller. Are you removing that from your initial figure, too?

Mr. MOOR. The first recorded—and I have not audited this, obviously—the first recorded cost of Vietnam other than a military assistant type of cost was \$100 million in 1965, Mr. Chairman.

Chairman PROXMIRE. So that the expenditures in Vietnam in 1964—

Mr. MOOR. Military assistance, and completely advisory. And as I recall, it was very, very small in terms of numerical size, and the dollars obviously were of the magnitude that they aren't even segregated.

Chairman PROXMIRE. Less than a hundred million dollars?

Mr. MOOR. Certainly less than a hundred million dollars.

Now, the \$64.1 billion base that I am starting with I would like now to treat two ways. All planning for Vietnam involves a considerable time for redeployment, and certainly the constraint is primarily that of retrograding equipment and supplies, simply because of port constraints and out-loading capabilities.

I believe—and again I am not going to quote myself as being a redeployment expert—certainly the time frame that we would be talking about for retrograding cargo, and phasing troops down to the peacetime baseline force, would take anywhere from a year and a half to 2 years. This is on a progressive basis.

Therefore, if we start with a \$22 billion cost of Vietnam in 1970, and assume that sometime during that period of time, without my forecasting any military determinations, from a fiscal viewpoint—

Chairman PROXMIRE. Let me ask you again. You said \$22 billion?

Mr. MOOT. Is the authority. Our expenditures, our outlays are \$24.9 billion, sir. You can readily see, there was a buildup because—

Chairman PROXMIRE. All the estimates we have had are lower than that. But yours is the most authoritative, and it is good to have it.

Mr. MOOT. The actual figure in terms of outlays is \$24.9 billion in the revised budget. And the authority is \$22.1 billion. And this simply results from the delivery of the munitions stemming from the higher production this year due to the Tet, May and August offensives of last year.

For a reasonable logical fiscal selection of phasing out of the \$22 billion of authority, I have arbitrarily picked \$11 billion for phasing out over the next few years, it would be higher in 1970 and gradually come down. The point I am making here, with the Vietnam phasing situation, a gradual Vietnamization of the war, if you will, is there would be an order of magnitude of at least \$11 billion of costs associated with support, and that type of continuing action.

That of course, added to the \$64.1 billion, puts us in about the \$75 billion bracket. If we then move on to assume that we are in a time frame when there is no combat in Vietnam, and there is either a cessation or gradual phase down so that the decreasing intensity of activity becomes only sporadic, and we are in a complete peacetime but alert situation, I think we can take the same \$64.1 billion. Again projecting from the tables that we are looking at in terms of price inflation, our wage costs on an actual basis, statutorily from Congress, have gone up an average of about 5 or 6 percent a year. The Federal price index for goods and services bought by the Federal Government has been increasing, showing an index price increase of about 3 percent. Using a 5 percent wage increase and a 3 percent cost of goods and services increase, we would get an annual cost increase of about \$2½ billion due to wage and price inflation.

If we assume that we are talking about 1972, or later, 2 years after the beginning of any phase down, we would have to add \$5 billion to our basic figure of \$64.1 billion.

It is generally considered that the cost of free world support on a continuing basis to maintain the situation as it stabilizes within South Vietnam would require a continuing support to the Government of Vietnam. Obviously the amount of this would be determined by the situation at the time. But on the basis of what has happened, we would assume that this could very probably be about \$2 billion.

Now, the sharp reduction, amounting, as you know to about \$7 billion that I mentioned before from the 1964 level to the revised 1970 level in the nonwar area, was done in a certain sense very deliberately. There were resulting backlogs, there were deferrals in real property maintenance, there were many things that were not done in the Department of Defense in order to ease the impact on the economy of the cost of the war.

As a consequence, and as Secretary Shillito can tell you in greater detail than I can, there is a considerable backlog of necessary military construction and rehabilitation of our real property.

Assuming that we account for this on a relatively modest basis for several years, it would probably cost again about a billion dollars a year. So that we have 64 billion. We have 5 billion to get to 1972, and then an increase of two and a half to stay even each year, and we have a billion dollars of backlog elimination. And in the cost of the war there are certain other costs which must be transferred to a peacetime baseline. These are not significant, but they must be recognized. They are several. We are currently charging as a cost of the war research and development for a limited war technique, because all of our research and development in limited war technique is now currently devoted to the type of situation we have in Vietnam.

There would be a continuing peacetime requirement for research in limited war techniques.

Certain of our operating equipment out there, our planes and ships, will revert to the peacetime baseline population. The costs of training, using those operating equipments, and the cost of modernizing them and improving them, will then revert from what is now a war cost to a peace cost. Again, until we finalize this, I can't give you an exact figure. And again I am using aggregates. But I would assume that this in turn would be a cost of about \$2 billion.

Now, I am therefore about at the same level, the \$75 billion level, without any modernization, or without any new weapon systems, all of which must be controlled on an individual basis, and many of which will be requested as the Defense Department moves into looking at new programs.

This then, means, Mr. Chairman, that from the Defense Department point of view, in order to meet its military objectives from the baseline of a peacetime budget, and in order to provide the kind of readiness that we in the Defense Department would recommend, would require a level of \$73 to \$75 billion, in that order of magnitude. And that is the way we would be viewing it in rough aggregates. We are, as you know, participating by providing input to the President's Cabinet Committee on economic policy which is reviewing the economic priorities and the postwar budget requirements.

Now, that level of expenditure is a statistical determination, but I have deliberately not added any amount of money for qualitative improvement to our forces. And I think the figures I have cited, coming from 1964 to 1970, are a fair indication that we have not expended large enough sums for new weapons in terms of an overall qualitative improvement. The technology has grown significantly. And I think it fair to say, and that the Congress recognize, that we could not and cannot replace our equipments on a dollar for dollar basis. The new equipments that we are currently buying are both more complicated and more costly. So that the situation does indicate a continued relatively high level of defense expenditures.

This leads me to the last point. And this, I think, is the key issue, Mr. Chairman, from your point of view and the inquiry of the committee. If we accept the fact that our non-Southeast Asia baseline forces, as we have them now in 1970, are required with whatever equipments we have bought since then, and with stockpiles of inventory

reconstituted, we are not looking at the possibility of a significant defense budget cutback.

If our commitments and our missions can be scaled back, then significant cutbacks in our budget are possible, and would follow.

But there is nothing that we are looking at in the Defense Department that would lead us to believe that the phaseout of our requirement and involvement in Vietnam would automatically result in a scaledown of our world commitments.

So that we are not looking at a situation that tells us that we can expect sharp curtailments in our defense budget.

I would like to close with a final point which I think is very important, which I am sure that you will be discussing with Budget Director Mayo and Council Chairman McCracken. And that is that studies of the integration of domestic and military policy are going on in the executive department, that the computations of calculated costs and risk for several levels of military readiness are going on, and will be evaluated in the Department; and that the new administration is going to exert every possible effort and every possible technique to improve the management practices in the Defense Department.

Mr. Chairman, that completes my statement.

(The prepared statement of Robert C. Moot follows:)

PREPARED STATEMENT OF HON. ROBERT C. MOOT

Mr. Chairman and Members of the Committee, I welcome the opportunity to appear before this committee, and to contribute to your consideration of the military budget and national economic priorities.

I have a prepared statement, developed to be responsive to the points in your letter of invitation to Secretary Laird and in the related materials which you furnished. In my statement, I will first offer some observations on the size, composition and trends of the Defense budget and the Federal budget, from 1964 to 1970. Second, I propose to discuss the major factors determining military budget requirements. Third, I will discuss some key aspects of the Defense budget from the viewpoint of Congressional control, directed at this question: how does the system for Defense budgeting measure up as a vehicle for registering and implementing Congressional determinations on priorities?

The next two parts of my statement will deal, respectively, with the Defense Resource Allocations process and the Defense Resource Utilization process. I will conclude with some observations on the post-Vietnam budget outlook for Defense.

I recognize that this Committee has been sharply critical of the Department's management practices, particularly with respect to purchasing, accounting and cost-control procedures involved in procurement from industry. I will cover certain of the policy and management systems changes that have been developed in the past four months, which are directed at the problems which have been highlighted by this Committee, Assistant Secretary Shillito, when he testifies, will describe in greater detail the changes we are making in our procurement policies and practices.

With your permission, then, Mr. Chairman, I will take up the points in my statement in the order I indicated.

SIZE OF THE DEFENSE BUDGET AND 1964-1970 TRENDS

Some relationships which may be helpful in appraising the size of the Defense budget are presented in Table 1.

Table 1 shows military outlays—that is, outlays for the military functions of the Department of Defense, plus military assistance—in absolute terms, and as a percentage of GNP.

As a percentage of GNP, military outlays reached their post-World War II low in 1948, at 4.5%. The high, reached during Korea, was 13.4% of GNP in 1953.

The Vietnam high was 9.5% reached in 1968. Military outlays for fiscal year 1970, as revised downward by President Nixon and without the July 1, 1969 pay raise, are projected at 8.1% of the GNP—below the pre-Vietnam year of 1964, well below the levels which prevailed through the 1950's and early 1960's, and far below the levels which prevailed during Korea. The fiscal year 1970 level is well below most of the years during the last two decades.

A similar relationship appears in comparing the military budget with total Federal budget outlays. This percentage dropped steadily until 1965; the trend was reversed with Vietnam, and military outlays climbed to 42.5% of the Federal total in 1968. They are declining again, and for 1970 are forecast at 39.8%. This is well below the pre-Vietnam year of 1964, and the earlier years. Not since the late 1940's has the military budget consumed a significantly lower percentage of the Federal budget total than is projected for FY 1970.

It is worthwhile to look at the absolute figures for a moment. From the pre-Vietnam year of 1964 to 1970, military outlays rise by \$27.1 billion; other outlays increase by \$47.2 billion. From 1968 to 1970, military outlays decrease slightly; other outlays increase by \$12.4 billion.

In summary, these figures do not indicate that military outlays are racing ahead unchecked, or consuming unprecedented portions of GNP or the Federal budget.

The figures used to this point have included special wartime costs, and have not been adjusted for inflation. Table 2 shows a breakout of costs for support of operations in Southeast Asia. Note that outlays for Southeast Asia are forecast at \$24.9 billion for 1970. Outlays for military retirement, which does not contribute to current military readiness, are forecast at \$2.7 billion for 1970. Remaining outlays are forecast at \$50.3 billion, an increase of \$700 million in current dollars from the 1964 level.

Allowing for pay and price increases since 1964, our non-war and non-retirement budget has declined sharply—from \$49.6 billion in 1964 to \$41.8 billion in 1970, a drop of \$7.8 billion in constant dollars. This is a drop of about \$9.4 billion in FY 1970 dollars.

It will be noted that our non-war budget consumes a sharply declining percentage of GNP and of the total budget. These figures include the growing cost for retired pay. In these terms, the Defense budget is 27.1% of the Federal budget total—lower than the lowest year since World War II, the non-war year of 1948. The non-war budget is 5.5% of GNP, compared with 4.5% for 1948.

This sharp drop in constant-dollar non-Southeast Asia costs was in large part deliberate, to ease the impact of the war upon the economy. The effect, however, has been to create a series of backlogs and deferrals—a slowdown in training and operating tempos for our forces elsewhere, deferral of modernization and maintenance, etc. There has been no major decline in our missions and defense requirements in other parts of the world, and these backlogs present a serious problem.

Another factor of great importance in considering post-Vietnam budget levels arises from the fact that certain elements of cost, properly charged to Southeast Asia at the present time, will remain as a part of the post-war baseline budget. For example, all research into limited war techniques is currently included in the cost of the war. Such research will continue to be required after the war. As another example, the cost of maintaining and modifying equipment used in Southeast Asia is properly a war cost at this time. To the extent these equipment are retained in the operating forces after the war, the costs will then become a part of the peacetime budget.

The attachments to Table 2 present details on the composition of the pay and price increases. These increases include three elements: pay act increases, as provided in law; a special computation for military retired pay; and, for the remainder, use of the non-compensation component of the Federal purchases deflator developed by the Department of Commerce. It is important to note that the July 1, 1969 pay raise is not reflected here.

The pay increases during this period were unusually large. They reflect the adoption of the comparability principle for Federal salaries. In addition, of course, price increases during the period have had an impact.

The FY 1969 and FY 1970 Defense budget levels which I have been discussing represent the requests currently before the Congress. Upon assuming office, this Administration undertook a thoroughgoing review of the estimates submitted to the Congress in January 1969, following which budget amendments were submitted which significantly reduced those estimates. In terms of total obligational authority, or TOA, these reductions to date have amounted to \$628 million for FY 1969 and \$2 billion 644 million for FY 1970. Details of these reductions are shown in Table 3. The review is continuing.

FACTORS DETERMINING MILITARY BUDGET REQUIREMENTS

Having discussed the size of the Defense budget, I would like to turn next to the factors which determine that size. The Defense budget is fundamentally the product of policies formulated and decisions made external to the Department of Defense. The Department exists solely to implement the objective of national security, which is not a self-generated goal, but a vital commission bestowed by the people as a whole. The articulation of national security policy is a function of the President, acting through the National Security Council, with the advice and consent of the Congress. The specifics of national security policy are frequently generated by the Department of State, as is the case with collective security treaties and the military requirements pertaining thereto.

The international situation.—The overall United States defense posture, including forces and bases overseas and the military assistance program, is determined directly by a careful assessment of the international situation by the National Security Council, using the resources of the intelligence community and other sources. We must not only consider the threats to our national security that exist today, but we must forecast what these threats are likely to be in the future. This forecast must provide adequate lead time to develop and produce systems and forces that will neutralize these future threats.

Therefore, I believe that any dialogue on national priorities must include a recognition of the factors in the international environment that influence the security of the United States. I am sure these factors are well-known to the Committee, but I would like to restate certain principal elements previously testified to by Secretary Laird.

(1) The Administration is working toward a peaceful and honorable settlement of the conflict in Vietnam. We hope that after this settlement is reached, the countries of North and South Vietnam and the United States will be able to develop a constructive and cooperative relationship. However, even after a U.S. withdrawal from South Vietnam, it will be several years before we can relax our vigilance and readiness in Southeast Asia.

(2) North Korea, backed by large and well-equipped armed forces, continues to announce its aggressive intent with respect to the Republic of Korea in the south. The threats have been underlined by an attempt to assassinate the President of the Republic of Korea, their seizure of the PUEBLO, their destruction of a U.S. plane over international waters and continued efforts to infiltrate armed bands into the south.

(3) Communist China still constitutes the most dangerous potential for threatening peace in Asia. With a vast army and relatively large air and naval forces on the verge of being supplemented by an operational nuclear capability, Communist China has the possibility of becoming our gravest national security problem in the 1970's.

(4) In South Asia, a potential security problem is posed by the withdrawal of United Kingdom military forces from Malaysia/Singapore by the end of 1971. Australia and New Zealand have recognized this problem by announcing their intent to maintain a military force there.

(5) In the Middle East, the almost daily clashes indicate that the Arab-Israeli conflict verges on an active state of war, with the imminent threat of expansion. This situation is complicated by the continuing flow of Soviet arms to their Arab clients.

(6) In Europe, the extent of our national security problems were put into sharp focus by the Soviet invasion of Czechoslovakia, the speed and efficiency with which the invasion was carried out, and the recent Berlin harassment.

(7) We are confronted with a marked increase in Soviet strategic weapons capability, both offensive and defensive, a challenge that is of serious import.

(8) There has also been a distinct buildup in Soviet General Purpose Forces. As you know, the Soviets are increasing their naval capabilities in the Mediterranean and the Indian Ocean, as well as increasing their involvement in Middle East affairs. At the same time, the Russian research and development effort is still going forward at a vigorous pace. All of this is reflected, of course, in the increased military budget of the Soviets.

International commitments.—To counter the threats that I have just discussed, both World War II and events since have demonstrated that our activities must not be limited to U.S. territory. Our national security interest extends eastward across the North Atlantic into Western Europe, and the Mediterranean, south into the Caribbean and westward into the Pacific and countries bordering thereon. To maintain our national security interest, a substantial portion of U.S. forces are maintained overseas. In some cases these forces are participating in mutual security arrangements with our allies. These forces, together with supporting bases and installations, enable us to deploy our land, sea and air power effectively against the continuing threat posed by our central adversaries, the Soviet Union and Communist China.

The United States currently has 1,171,000 military personnel in foreign countries and areas—slightly over one million ashore and 103,000 afloat. There are over 340 major installations in foreign countries and many smaller ones as well. These figures may seem large, but it is interesting to note that without our current heavy deployment in Vietnam, the total number of military personnel overseas is about the same as 1958.

We are continually reviewing our requirement for forces stationed overseas and the bases that support them. We also watch very closely the balance of payments impact of our overseas operations and take every measure to eliminate or minimize unfavorable balances. As I have pointed out, many of these requirements are a direct result of our participation with our allies in mutual security arrangements that protect countries and areas that are vital to our interests. In other cases, overseas facilities are needed in support of U.S. programs, such as communications installations that are part of satellite tracking networks or bases that support ships and aircraft that must operate at a considerable distance from the United States.

Establishment of priorities.—Mr. Chairman, consideration of national goals and priorities, as your publications suggest, involves a look across the entire range of Federal activities, and over a considerable span of time. I would like to offer a general comment concerning such an inquiry.

The comment is this: in such a perspective many of the traditional distinctions, which serve us well enough on a day-to-day basis, tend to become blurred. This is certainly true of the distinctions between foreign and domestic affairs, or between military and civilian programs. For example, if American educational efforts or health programs were seriously degraded, the military services would not be seriously affected next week or next year; in the long run, however, the impact upon our armed forces could be disastrous. By the same token, unwise decisions with respect to national defense could set in motion a chain of events which would be at the very least seriously harmful to our society, and disastrous at worst.

This is not merely a theoretical proposition—I believe it can be supported by our experience. Consider, for example, the western economic miracle of the past two decades. We see efficient, innovative, fully-employed economies, enriching each other—through what economists like to call comparative advantage and the foreign trade multiplier. We know what conditions were in the Europe of the 1940's. And we know that present conditions could only be realized when European statesmen and business leaders were assured that there would be a tomorrow. That assurance came in the form of the Marshall Plan, the American commitment to the continent through NATO and the American nuclear deterrent.

I do not claim that the American military involvement accounts alone for what has transpired. But I believe it was essential; the history of the last

two decades would be different without that involvement. This investment has paid handsome dividends in terms of national security; in terms of our economy; and most importantly, in the quality of American life.

I believe that few would question the wisdom of the investment we made. Even accepting that, how, in the perspective of years, do we assess costs and benefits? How much was military and how much non-military? How much was foreign and how much domestic?

We have had similar experiences elsewhere. In Japan, certainly, and in smaller economies, such as Korea and Taiwan.

Defense programs have an economic and social impact in many other ways. For example, the funds we spend for training offer a long-run bonus. We have taken a number of positive steps with respect to procurement, property management, and community affairs—all designed to serve constructive social ends.

This is not to deny that national security programs have some undesirable economic effects. They do. The most significant of these is the diversion of resources from other highly desirable programs. This is the opportunity cost—the cost of alternatives foregone: ultimately in public affairs, this is the cost that matters. We can expect, and in fact we welcome, continued public attention to military costs. We ask only that no one lose sight of the most important cost of all: that associated with not doing enough.

DEFENSE BUDGET AND CONGRESSIONAL CONTROL

I would next like to highlight a number of features having an important bearing upon the controllability of the Defense budget. I will address this question: how does the system for Defense budgeting measure up as a vehicle for registering and implementing Congressional determinations on priorities? This, as I understand it, is a matter of central concern to your inquiry, and I would like to offer a number of points which I believe are pertinent to that question.

Absence of automatic financial authority.—For many Federal programs, outlays are determined by the operation of formulas and other statutory provisions, and are not controlled through the appropriation process. To quote from the President's budget for FY 1970 (p. 15), ". . . in some cases, national priorities are arbitrarily distorted by the fact that the outlays for some Federal programs are sheltered in basic law from meaningful annual control . . ." The budget for 1970 (p. 20) showed that only \$20.6 billion of civilian program outlays were relatively controllable—about 17% of the total. The remainder involved statutory formulas, permanent authorizations, etc.

In contrast, the Department of Defense has relatively few programs that are uncontrollable in this sense. Payments to retired personnel and claims (estimated at \$2,735 million and \$41 million, respectively, for FY 1970) are the only such programs we have. Even these, it should be emphasized, are subject to specific, annual appropriations—they are not covered by permanent or indefinite authority or other such arrangements.

In short, Congress can change the Defense budget totals directly and expeditiously through the appropriation process. For most of the remainder of the budget, this is not the case. In this sense, I believe, the Defense budget system is a more effective instrument for the prompt registration of Congressional policy choices.

Carryover balances.—Another factor of considerable importance in appraising the responsiveness of the budget system to a change in priorities is the matter of carryover balances. Where there are large carryover balances, budget outlays obviously tend to be less responsive to current appropriation action than would otherwise be the case. Table 4 presents the unexpended balances for military programs and other programs as forecast in the 1970 President's Budget for June 30, 1969.

It will be noted that Defense has 10% of the unobligated balances for the Federal budget, and 21% of the unexpended balances. Unexpended balances are equal to about 7.4 months of outlays for Defense, versus 18.3 months for the rest of the Government.

I am sure that you will agree that this matter of responsiveness to current conditions is an important consideration.

Management of carryover balances.—A related matter of great importance to an inquiry on priorities concerns the management of carryover balances. The questions involved here are these: once funds are provided by the Congress, are they more or less automatically and routinely applied to the purpose for which appropriated? Or, conversely, are there effective procedures for applying these funds to higher-priority programs as circumstances change?

In the Department of Defense, there are well-established and, we believe, effective procedures for re-assessing priorities and re-applying resources that the Congress has provided in the past. These changes are effected through what are called financing adjustments, reflected in our annual budget submission, and through reprogramming.

Financing adjustments involve the use of prior-year appropriation balances, or the sale of inventory without replacement, to meet a part of the cost of the Defense program for a particular year. Financing adjustments of \$3.5 billion are reflected for FY 1969 and \$2.4 billion more are proposed in our amended budget for FY 1970. These amounts are deducted from the program levels proposed for a year to determine the amount of appropriations requested.

These financing adjustments arise largely from (a) cutback or termination of systems financed in earlier years, and (b) sale of inventory without replacement. In the latter connection, our experience with stock funds is worth noting. Since the early 1950's, we have drawn down stock fund inventories to a considerable extent, making it possible for the Congress to transfer over \$10 billion in cash to appropriations, thereby reducing new obligational authority required by that amount.

Reprogramming understandings.—There are formalized understandings with the Appropriations and Armed Services Committees of the House and Senate with respect to reprogrammings within an appropriation. In general, after the Congress completes action on our appropriations each year, agreed reprogramming thresholds are established, specifying approved amounts for major line items, projects, and budget activities. Some reprogramming actions require prior approval, others require immediate notification of the Committees, and minor actions must be covered in semi-annual reports.

Through these actions, the Congressional Committees are advised—and can deny—any changes involving quantities, characteristics, or costs for major items or programs.

It is important to emphasize that all legal restrictions as to the availability of appropriations continue to apply. The system of reprogramming understandings gives us no relief from appropriations or other statutory provisions.

But I think this combination of financing adjustments and reprogramming understandings which I have described is important to your area of inquiry for two reasons: First, it facilitates a constant reassessment of resources and priorities and, second, it provides for Congressional participation and control on an up-to-the-minute basis. These arrangements have been worked out over the years for the Department of Defense which, as indicated earlier, has about 10% of the Government's unobligated Treasury balances. I am not, of course, in a position to comment upon the extent to which these arrangements might apply to other programs.

Visibility.—The materials furnished to us prior to this hearing stressed the matter of visibility of the budget. In this connection, I believe that there are at least two measures of the degree of budgetary visibility.

The first arose in 1967, in connection with the work of the President's Commission on Budget Concepts. That Commission devoted a great deal of study to matters of budgetary concepts, presentation, comprehensiveness and comprehensibility. Visibility was certainly a central concern of that Commission. It is interesting to note the changes from the "old" to the "new" basis for fiscal year 1967, the first actual year affected by the recommendations of that Commission:

For DoD military and MAP—a drop of \$130 million or less than ½ of 1%—from \$68.5 billion to \$68.3 billion.

For other agencies, an increase of \$36.9 billion, or 65%—from \$57.2 billion to \$94.1 billion.

I do not want to imply that the Defense budget approach was ratified in all respects by this Commission, but I do think it is significant to your inquiry to note that the change in concepts had little impact upon our budget presentation.

Another measure of visibility involves the extent to which an agency's budget totals reflect its total volume of payments to the public. That is, large amounts of such payments are netted from the budget totals for certain agencies. An indication of this is the table on "Gross Flow of Government Administered Funds", shown at page 26 of the Special Analyses for the FY 1970 budget. This table shows that, for 1968, payments to the public exceeded the reported budget totals by \$32.9 billion. Payments to the public were \$211.7 billion, versus new concepts budget totals of \$178.9 billion. Of the \$32.9 billion difference, \$2.3 billion, or 7%, applied to the budget for DoD military and MAP. Put another way—

Budget totals for DoD military and MAP were \$78 billion, while payments to the public were \$80.3 billion, or 3% greater.

For the balance of the Government, the budget totals were \$105.5 billion while payments to the public were \$136.1 billion—29% greater.

In summary, it has never come to our attention that any major adjustments or rearrangements of our budgetary presentations are necessary to provide visibility.

THE DEFENSE RESOURCE ALLOCATION PROCESS

The Committee has expressed an interest in the methods for determining goals and priorities, and for allocating resources to programs. Within the Department of Defense, we follow an annual planning, programming and budgeting cycle that provides for a regular and systematic review of national security objectives and related resource requirements.

The Five Year Defense Program (FYDP), is the official record of programs that have been approved by the Secretary of Defense for planning purposes. It reflects military forces programmed for the next eight years and associated manpower and funds for the next five years. The first year of the FYDP is the budget year under consideration by Congress and the forces and resources are those included in the President's Budget.

The annual cycle begins with an evaluation of intelligence estimates. In the Fall, the Joint Chiefs of Staff update available intelligence data and publish a document called the Joint Intelligence Estimate for Planning. This document plus policy determinations of the National Security Council and other pertinent data form the basis for the Joint Chiefs' review of the currently approved FYDP.

The results of this review are published in a three volume document called the Joint Strategic Objectives Plan (JSOP). This Plan uses the FYDP as a basis and then recommends a revised force structure and strategy in consonance with the updated threat evaluation. The time frame for publishing the JSOP is February through April. Also published at this time is the Joint Research and Development Objectives Document, which recommends areas of needed research emphasis for the period of the JSOP and for ten years beyond.

The JSOP strategy, forces and resources are evaluated by the OSD staff. Requirements studies, prepared independently by the Military Departments and Defense Agencies, provide input for this purpose. As a result of this OSD review, a series of policy and planning memoranda are issued from March through August. Certain of these are called Draft Presidential Memorandums, which discuss alternative strategies, forces and resources. Others are called Defense Guidance Memorandums and Major Program Memorandums, which discuss broad areas such as manpower, logistics, tactical air forces, Naval forces, etc.

These policy and planning memoranda are issued on a staggered basis, and from May through August there is a continuing dialogue between OSD, JCS and the Defense Components on the issues covered in these documents. These memoranda are furnished to the Department of State, the Bureau of the Budget, and other elements of the White House Office and Executive Office for comment.

Among other things, these memoranda are the vehicle for bringing the results of economic analysis to bear upon the choices under consideration.

The Defense Components respond to the proposals in the memoranda by submitting Program Change Requests, or PCRs. Each PCR details the necessary force, manpower and fund changes to be made in the previously approved program, to bring it in accord with a memorandum. If the Defense Component disagrees with a proposal, a second PCR is submitted detailing the component's position.

The Secretary of Defense reviews the PCR's and makes his decision known in documents called Program Change Decisions, or PCDs. The PCDs are entered into the Five Year Defense Program file to update the approved program.

Based upon the approved program as of September 1, the Defense Components submit a budget for the next fiscal year. The budget estimates are submitted by October 1. The earlier PCR estimates are refined and the information is in the prescribed budget formats. The basic budget must conform to the decision record in the FYDP except for pricing, but an addendum budget request for new or reclaims items may also be submitted.

The Defense Component budget estimates are reviewed and examined by budget and systems analysts and functional specialists on the OSD staff, with participation by staff of the Bureau of the Budget. This takes place in the October-December period. Budget decisions are made by the Secretary of Defense through documents called Program/Budget Decisions or P/BDs. From 400 to 500 budget decisions are made each year covering discrete portions of the estimates.

These P/BDs cover the entire Defense budget. If none of the participants in the budget review wishes to question a particular part of a component budget submission, a tentative P/BD is submitted to the Secretary so indicating. If one of the participants wishes the Secretary to consider an alternative—usually a lower—estimate, the material presented to the Secretary will reflect the service estimate and one or more alternative estimates, with a brief analysis applicable to each. The P/BD as approved by the Secretary will approve the service estimate or a specified alternative.

Representatives of the Bureau of the Budget have access to all data available to the OSD staff as well as additional data developed through their independent investigations. BoB representatives do express opinions during the OSD budget review but, in addition, maintain an independent position which is presented to the Budget Director at the time the Defense budget is transmitted to the Bureau.

In December, discussions are held between the Director of the Bureau of the Budget and the Secretary of Defense on areas of disagreement. Subsequently, the Director marks up the Defense budget and transmits to the President. If he disagrees with the conclusions reached by the Director, the Secretary of Defense may appeal to the President for reconsideration. After final review and approval by the President, the budget is transmitted to Congress and Congressional hearings usually start shortly thereafter.

Apportionment reviews occur in June—again with Bureau of the Budget participation. Following this, annual financial plans are issued, subject, of course, to the limitations imposed in continuing resolutions and in appropriation action. Further financial plan adjustments are made after appropriations are enacted, and the current year program is once again reviewed in the course of the fall Program/Budget review.

The reprogramming understandings with the Congressional Committees, which I have already described, are another very important feature of our system for resource allocation.

I want to emphasize that the planning, programming and budgeting cycle involves a careful assessment of the threat and our national security objectives. The resource implications of alternative strategies are introduced very early in the cycle and are thoroughly studied and discussed for almost a year before a budget is transmitted to Congress. In addition to the reviews conducted by OSD, reviews are made by the Bureau of the Budget, the President and the House and Senate Armed Services and Appropriations Committees. Chart 1 presents an overview of this process.

RESOURCE UTILIZATION

After funds have been provided to DoD by Congress, it is important for these funds to be used as efficiently and effectively as possible. We have made considerable progress in resource management systems, but much remains to be done. I would like to cover the status of our systems in the two areas that involve most of the resources appropriated to DoD: Defense operations and weapons acquisition.

RESOURCE UTILIZATION : OPERATING COSTS

Operating costs comprise 58% of the Defense budgets for FY 1969 and 1970. These costs include the costs of military and civilian labor, consumable materials, and contract services. They are financed almost entirely from the Military Personnel and Operation and Maintenance appropriations, and are forecast at \$47 billion in FY 1969 and \$46.7 billion in FY 1970.

By 1965, the Department of Defense had made significant progress in developing its planning and resource allocation process. The Planning-Programming-Budgeting System I described earlier was in operation and resources were being allocated in terms of major missions and end uses. Budgeting, accounting, and financial management, however, was conducted in terms of Congressional appropriations which were resource or input-oriented. It was extremely difficult to compare the accounting data generated through resource utilization systems with the original program allocation. When such a comparison was attempted the results were imperfect.

Beginning in late 1965, an effort was initiated to design and implement a new system for the financial management of Defense operations. This endeavor, which came to be known as Project PRIME, ultimately proved to be one of the most complex and difficult management changes ever undertaken in the Department.

Project PRIME first set out to achieve consistency across the management spectrum. The Defense program structure, composed of almost 1200 program element, was revised to achieve a greater degree of correspondence between program element and organizational entity. This was done to insure that information on resource utilization, gathered for the most part at the organizational entity level, could be aggregated and compared with resource allocation decisions made in terms of program elements.

A chart of accounts was then developed. The basic account was the program element which identified the overall use to which the resource would be put. Each organization entity contained in the program element would then account for operating resources in terms of 13 functional categories which described the specific activity requiring consumption of the resource such as supply, maintenance, direct mission support, etc. Aggregations of these accounts would permit the overall functional manager—the Director of Supply, the Director of Maintenance—to analyze the resources utilized throughout the Defense establishment to perform the function for which he had supervisory responsibility. Beneath the functional categories, the chart of accounts also required the distribution of resource consumption into 17 elements of expense which described the kind of resource being utilized, i.e., military labor, petroleum, oil and lubricants, consumable supplies, etc. This accounting level generated answers to the question—who was using how much of what? The utilization of expenses as the fundamental constituent in the accounting system paved the way for a subsequent comparison of resources consumed with outputs generated, and offered the potential of efficiency calculations which otherwise could not be accurately made.

The next step was to insure the collection of total expenses of an activity at the point of consumption. This required the introduction of the cost of military personnel into the operating budgets of field activities. Since military personnel were, and are still, managed for the most part centrally with little discretion over their assignment in the hands of field commanders, this requirement posed a major problem. This was solved to a degree by the development of standard costs for military personnel and requirement for reconciliation of standard to actual at the military headquarters level.

A sizeable amount of consumable repair parts, primarily in the aeronautical and sophisticated electronics area, had been procured and paid for centrally and furnished to field at no charge. The financing authority for these was moved from the procurement to the Operation and Maintenance appropriation so that their costs could be both budgeted and accounted for at the using level.

The utilization of working capital funds—stock funds and industrial funds—was expanded to eliminate other “free issue” resources resulting from central procurement and distribution at no charge. These funds function as suspense accounts in which the costs of operating resources can be lodged until both the resource and the cost are transferred to the end user.

With these changes, each organization is budgeting and accounting for 100 percent of its measurable expenses. The system does not prorate indirect overhead, that is, it does not attempt to allocate the costs of the headquarters establishment to the field. But where common services can be separately identified by user and where a buyer/seller relationship can be established, a financial service unit may be set up with customers being provided with necessary expense authority.

The most recent step in the evolution of this system has been the development of a computerized operating cost subsystem to the Five Year Defense Program. This has consisted of the creation of data banks at the service level containing resource utilization information in program element, functional category, and element of expense detail. From these, responsible managers at the service headquarters and OSD level can extract summaries of resource utilization information which they can contrast with resource allocation information contained in the plan. Thus far it has been found that the reports are neither as timely or as accurate as desired but they improve each quarter and we are finally beginning to obtain some measurement of progress against plan.

As the system is refined, a number of improvements should be realized. The basic operating cost data utilized in forward planning should become more direct, complete, and reliable. Operating managers at all levels should be encouraged to focus on their total resources and not just those resource elements for which they were previously charged. With the help and concurrence of the Congress, the system may lead to a greater emphasis on budgeting in terms of outputs and end products. To the extent that accurate output measures can be developed, the effectiveness of resource allocation decisions can be increased.

These management advantages will not be achieved without difficulty and they will take time. A great deal of education and training remains to be done and until a majority of Defense managers become comfortable with the new system it will not realize its full potential. We all have a tendency to be impatient, particularly where the management of \$47 billion is involved, but I submit that we have been fortunate in coming as far as we have in three and one-half years. Project PRIME illustrates both the difficulties inherent in Defense management and the truly dedicated efforts of Defense managers in trying to overcome those difficulties.

RESOURCE UTILIZATION : WEAPONS ACQUISITION

Development Concept Paper (DCP).—As a key step in the management of weapons acquisition, a Development Concept Paper or DCP is prepared prior to making a decision to initiate engineering development. DCP's are summary top management documents prepared for the Secretary of Defense to aid him in making decisions on important development programs. The DCP gives all parties to the process a common vehicle for debate, airing of differences regarding a program and decision-making. The guidance concerning DCP's also specifies that they will be issued when a program breaches certain cost, schedule or technical thresholds—therefore automatically initiating Secretarial review.

Current management efforts.—The weapons acquisition process, as the Committee knows, has presented many difficulties in the past. Due to technical uncertainties, changes in requirements and schedules and economic escalation, some programs have experienced cost growth. In other cases, contractor performance has been unsatisfactory, causing cost increases, schedule slippages or unsatisfactory systems. Secretary Shillito will address the Department's plans to improve this process when he appears before the Committee.

As a result of past performance in this area, the management of weapons acquisition has received priority attention by senior Defense officials. The process is still evolving and reacting to the stimulus of fresh thinking on the part of Secretary Laird, Deputy Secretary Packard and others. Also, we have a substantial number of studies under way to determine how we can strengthen our control of this process.

Three improvement efforts that are currently in the process of implementation are particularly worthy of mention. These efforts are designed to improve performance measurement, to provide standards for contractor management

control systems and to develop an improved independent cost estimating capability.

Selected Acquisition Reports (SAR).—We have recently placed significantly increased emphasis on close management reporting in the weapons acquisition process. Our Selected Acquisition Reports system has been applied to 31 major weapons systems in development or procurement to provide quarterly reports on cost, schedules and performance. These reports are being personally reviewed by Deputy Secretary Packard and the Service Secretaries.

Contractor management controls.—We have also increased our emphasis on improvements to contractor management control systems. Department of Defense Instruction 7000.2 sets forth criteria for uniform DoD requirements for these systems. These criteria are applicable to the contractor management control systems used on selected contracts for certain major defense acquisitions. Those contracts are for programs which are estimated to require a total cumulative financing for Research, Development, Test and Evaluation of \$25 million or cumulative production investment in excess of \$100 million.

The fundamental objective of DoD Instruction 7000.2 is to require contractors to have cost and schedule program control systems which meet these uniform DoD-wide criteria. This is necessary in order to meaningfully compare resources consumed to work accomplished at any point in time during the execution of a contract. Five broad areas of performance measurement criteria are specified. These areas are:

- (1) standards for organization of work and required resources;
- (2) standards for planning and budgeting work;
- (3) standards for cost accounting;
- (4) standards for reporting on applied direct costs;
- (5) standards for dealing with revisions to planned and budgeted work.

The contractor's system must include policies, procedures and methods designed to insure it will meet these criteria.

We have heavily emphasized the application of these criteria to new programs. At the same time, we are also backfitting these criteria or similar service peculiar performance measurement systems to on-going programs.

Cost information reporting.—Our independent cost estimating capability is being improved through a system called cost information reporting. Cost information reporting provides cost data on current and past systems produced by industry; the data are in sufficient detail so that the cost of individual components can be determined. Uniform classifications are used, so that the data can be entered into a cost data bank and the cost of like items can be analyzed and summarized. Thus, a proposed system that involves components similar to those in the data bank can be priced out based upon what we have paid before. This calculated price can be used for planning and for evaluating contractor proposals. The system is in use and is contributing, but is relatively new. Its usefulness will increase greatly over time, as more and more data are collected and entered into the data bank.

Economic analysis.—As a general improvement to our management techniques, we have issued a revised DoD Instruction (DoDI 7041.3) on the economic analysis of proposed Department of Defense investments. This provided for the use of economic analysis as an integral part of DoD's planning, programing and budgeting system.

This instruction provides a conceptual framework and set of guidelines for applying economic and financial analytic techniques in making planning studies involving relative comparisons and tradeoffs among investment options.

The role and function of economic analysis came under close scrutiny and was the subject of exhaustive investigations by Congressional subcommittees throughout 1967 and 1968 because of its importance in establishing priorities for proposed federal expenditures. Congressional interest in these matters centered on the lack of consistent, coherent policies concerning the application of analytic concepts and techniques and their impact on efficient allocation of government resources.

DoD components have always made some form of analyses to support investment proposals. The revised instruction provides written policy concerning the purpose and groundrules for such analyses, and contains the following significant changes:

(1) defines "economic analysis" and establishes it as an integral part of the DoD planning, programming and budgeting system ;

(2) requires benefit-cost and cost-effectiveness studies, when appropriate, at all levels of management, e.g., command, subcommand ;

(3) provides definitions of the interchangeable terms: "benefits," "effectiveness" and "outputs ;"

(4) provides a rationale of the purposes and ground rules for applying economic analysis and capital budgeting techniques ;

(5) differentiates between economic analysis and other techniques of analysis ;

(6) use of the present value (discounting) technique is required in the analysis of all investment projects covered by the instruction.

My office is designing an education program for potential users of the DoD Instruction. We have also identified for the DoD Components specific areas which require particular emphasis during Fiscal Year 1970 as they relate to the implementation of the instruction. The primary purpose of this effort is to encourage DoD Components to improve their capability to identify benefits and costs associated with alternatives so that more informed judgments may be made by decision makers. The instruction also provides for the identification and documentation of key variables and assumptions on which investment decisions are based.

OUTLOOK FOR THE DEFENSE BUDGET AFTER VIETNAM

In your letter of invitation, Mr. Chairman, you noted Secretary Laird's recent statement regarding the outlook for the Defense budget after peace in Vietnam. Please let me quote the Secretary on this point :

" . . . even if we are successful in eliminating the war in Vietnam, our highest priority—we are still not going to come up with a drastically reduced defense budget—at least this Secretary of Defense will not recommend drastic reductions in defense spending, under presently foreseeable circumstances.

"Do not misunderstand me. The American people are the ultimate bosses in this country. If they want even a \$50 billion defense budget, they can certainly get it. But a drastically reduced defense budget will not provide adequate national security in the world in which we live."

I would like to present some figures which, in orders of magnitude, indicate why we in the Department feel that major budget cutbacks from present levels are not indicated.

Before proceeding, however, I want to make myself very clear on two points. First, I am not attempting to predict the course of events in Southeast Asia. I will suggest certain assumptions, and some related order-of-magnitude figures, only to serve as a basis for discussion.

Second, I am going to discuss some rather broad aggregates. It should be clear that our budget requests will not be developed upon such a macro basis. Rather we will propose forces and systems to meet our national security needs, based on the best information we can get and the best judgment we can apply. I think the aggregative approach may be of some help in considering the reasonableness of alternative budget levels, but its use is limited.

With these caveats, I would first like to approach our budget outlook from our 1964 prewar base. I will speak in terms of total obligational authority, or TOA, rather than outlays—TOA is a better measure of Defense program levels for this part of our discussion.

TOA was \$50.7 billion in 1964. Indeed, our TOA was quite constant through the prewar years—\$50 billion in 1962, \$50.9 billion in 1963, \$50.7 billion in 1964 and \$50.6 billion in 1965. As indicated earlier, inflation through 1970 will add about 20.3 percent to non-SEA costs. Our 1964 TOA level, excluding retirement, was \$49.5 billion, so pay and price increases add \$10 billion. Payments to retired personnel are up \$1.5 billion. The July 1, 1969 pay increase will cost \$1.9 billion, excluding the part applicable to Southeast Asia personnel.

Putting these figures together means that the 1964 program would cost about \$13.4 billion more now than it did then, or about \$64.1 billion at 1970 prices and pay rates. This is allowing nothing for Vietnam.

Our FY 1970 TOA for Vietnam is estimated at \$22.1 billion. Let us assume that the situation will develop so that we can eliminate half of that—\$11 billion, with the remainder to be reduced later.

This means that, to carry on the 1964 program at 1970 prices, plus residual Vietnam costs, would involve a program level (TOA) of \$75.2 billion. This does not provide for (a) meeting the backlog that has accumulated in recent years or (b) qualitative improvements in the pre-war force. Our FY 1970 TOA forecast is \$80.4 billion, not including the July 1, 1969 pay raise. The approach just outlined indicates why we are reluctant to postulate significant reductions below our FY 1970 budget levels, even with very favorable developments in Southeast Asia.

Let me approach the matter from the other end, working from our FY 1970 level. Our present FY 1970 estimates of TOA are \$80.4 billion, or \$82.3 billion if the non-Southeast Asia portion of the July 1, 1969 pay raise is added. The TOA for other than Southeast Asia is \$3.9 billion short of meeting the FY 1964 program level with FY 1970 dollars. To meet this objective would require a level of \$86.2 billion. From this, deduct \$11 billion on the optimistic Southeast Asia assumption stated previously, and the result is the \$75.2 billion mentioned earlier. This program level does not provide for meeting the backlogs which have accumulated. This involves construction projects; equipment maintenance; and modernization of the forces not deployed to Southeast Asia. In addition, there will be a need to reconstitute inventory levels as production phases down and reliance on the hot production base is no longer feasible. These items could add a sizable amount to the budget levels mentioned.

As Vietnam costs drop further in 1971 and thereafter—influenced, of course, by whatever residual forces may remain—we will face further pay and price increases, although hopefully more moderate than in recent years, and a continuation for a time of our efforts to meet the backlog on a phased basis.

Even without major qualitative improvements in our FY 1970 non-Southeast Asia forces—strategic forces, for example—it is difficult to see our budget dropping markedly from the levels suggested.

In this discussion, I have used the FY 1964 program level as a benchmark—in fact, as I noted earlier, the program or TOA level was at about the \$50 billion level for each year from 1962 through 1965. There is, of course, nothing sacrosanct about this level. I used this level to provide some recent prewar benchmark, and to stress the fact that—in discussing any significant changes from our FY 1970 budget levels in FY 1970 dollars—we are also discussing changes from those prewar levels in real terms.

In short, Mr. Chairman, I believe that budget levels not significantly below the present size are indicated, if these three conditions are accepted:

First, a baseline forces, not significantly different in size from the prewar level, with the backlogs eliminated.

Second, a recognition that special Vietnam costs will not disappear all at once but will phase down over a period of time.

Third, allowances for further price and pay increases in the period ahead.

Or, to put it the other way, if one postulates a very large cutback in the Defense budget, he must either postulate (a) a miraculously smooth and swift phasedown of Vietnam operations or (b) a very large cutback below prewar levels—a cutback that will be affected through failure to provide for the toll of pay and price increases, and by leaving the backlogs unmet.

This leads, of course, to the key issue. If one believes that our non-Southeast Asia baseline forces, modernized and with the gaps filled, are appropriately constituted to the threats we face, and can compete on a priority basis with other Federal programs—then a significant cutback in the Defense budget is not indicated. If our commitments and our missions can be scaled back, then significant cutbacks in our forces—and our budgets—would follow. We should not, however, expect such a development to follow automatically from peace in Vietnam.

In closing, Mr. Chairman, I would like to recapitulate the major points I have tried to make in my presentation.

First, I do not believe that the evidence shows that Defense expenditures are growing at a rapid rate, nor are they consuming an unprecedented or inordinate portion of the GNP or the Federal budget.

Second, I believe that the system that have developed over the years for the Defense budget serves the Congress very well as a means for establishing priorities and enforcing decisions. I believe that, on all counts, we compare very favorably with other agencies in this regard.

Third, we recognize that there are some serious management shortcomings in the Department. We have instituted, and are vigorously pursuing corrective measures.

Fourth, however, we should recognize that management improvements—important as they are, and necessary as they are—will not, in our judgment, produce very large reductions in Defense outlays in and of themselves.

Fifth, a large reduction in the Defense budget should not be expected to follow automatically from cessation of hostilities in Vietnam. Such large reductions, if they occur, can be achieved only through significant cutbacks in missions and forces.

Mr. Chairman, this completes my statement.

TABLE 1.—MILITARY BUDGET RELATIONSHIPS WITH GNP AND TOTAL FEDERAL BUDGET

Fiscal years	Fiscal year totals (in billions)				Federal budget outlays as percent of GNP ³			Military ⁴ outlays as percent of Federal budget	
	GNP	Federal budget outlays	military ¹	Other	Offsets ²	Total	military		Other
1948 ⁴	\$244.5	\$36.5	\$11.1	\$25.4	(9)	14.9	4.5	10.4	30.4
1953 ⁷	355.1	76.7	47.6	29.1	(9)	21.6	13.4	8.2	62.1
1955	378.6	68.5	37.8	30.7	(9)	18.1	10.0	8.1	55.2
1959	469.1	92.1	43.7	50.6	-\$2.2	19.6	9.3	10.8	46.3
1960	495.2	92.2	43.1	51.4	-2.3	18.6	8.7	10.4	45.6
1961	506.5	97.8	44.6	55.7	-2.5	19.3	8.8	11.0	44.5
1962	542.1	106.8	48.3	61.0	-2.5	19.7	8.9	11.3	44.2
1963	573.4	111.3	49.5	64.5	-2.7	19.4	8.6	11.2	43.4
1964	612.2	118.6	50.8	70.7	-2.9	19.4	8.3	11.5	41.8
1965	654.2	118.4	47.1	74.5	-3.2	18.1	7.2	11.4	38.7
1966	720.7	134.7	55.2	82.9	-3.4	18.7	7.7	11.5	40.0
1967	766.5	158.4	68.3	94.1	-4.0	20.7	8.9	12.3	42.1
1968	822.6	178.9	78.0	105.5	-4.6	21.7	9.5	12.8	42.5
1969	893.0	185.6	78.4	112.3	-5.1	20.8	8.8	12.6	41.1
1970	960.0	192.9	80.0	118.6	-5.7	20.1	8.3	12.4	40.3
1970	960.0	190.1	77.9	117.9	-5.7	19.8	8.1	12.3	39.8

¹ DOD military functions and military assistance.

² Undistributed intragovernmental transactions deducted from Government-wide totals under new concepts. Includes Government contribution for employee retirement and interest received by trust funds.

³ Figures do not add to total for 1959 and later because of intragovernmental transactions.

⁴ For 1959 and later, this is the military percentage of the agency totals—before deducting intragovernmental transactions.

⁵ 1948 is the lowest year for military outlays since World War II.

⁶ Not available.

⁷ Korea peak.

⁸ Revised estimate, Bureau of the Budget.

⁹ Approximated.

¹⁰ Reflects distribution of Government-wide pay raise effective July 1, 1969.

¹¹ Revised estimate of \$192,900,000,000 less \$2,800,000,000 for July 1, 1969, Government-wide pay raise.

TABLE 2.—SPECIAL SOUTHEAST ASIA COSTS AND IMPACT OF PAY AND PRICE INCREASES

[Dollar amounts in billions]

Fiscal year	Budget outlays, DOD military and MAP				Non-Southeast Asia outlays as percent of—	
	Total	Southeast Asia	Retired pay	Other	Federal budget	GNP
1964.....	\$50.8		\$1.2	\$49.6	41.8	8.3
1965.....	47.1	\$0.1	1.4	45.6	38.7	7.2
1966.....	55.2	5.8	1.6	47.8	35.8	6.9
1967.....	68.3	20.1	1.8	46.4	29.7	6.3
1968.....	78.0	26.5	2.1	49.4	28.1	6.3
1969.....	78.4	28.8	2.4	47.2	26.0	5.6
1970.....	177.9	24.9	2.7	50.3	27.1	5.5
Price and pay increases since 1964.....	-12.7	-3.8	-0.5	-8.5		
Fiscal year 1970 in fiscal year 1964 dollars.....	65.1	21.1	2.2	41.8		
Changes since 1964 in 1964 dollars.....	+14.4	21.1	+1.0	-7.8		

¹ Without July 1, 1969, pay raise of \$2,100,000,000.

Note: Detail may not add to totals due to rounding. Figures in millions are on table 2-A.

TABLE 2-A.—IMPACT OF PAY AND PRICE INCREASES ON DOD PROGRAMS, FISCAL YEARS 1964-70

[Dollar amounts in millions]

	Outlays in fiscal year 1970 budget	Deflator	Cost at 1964 prices	Cost of pay and price increases
Total, excluding retired pay:				
Active military basic pay and related.....	\$12,921	135.8	\$9,514	\$3,407
Other active military costs.....	7,524	115.0	6,543	981
Total active military.....	20,445	127.3	16,057	4,388
Reserve and Guard drill pay.....	423	135.8	311	112
Other Reserve components costs.....	567	115.0	493	74
Total military personnel.....	21,435	127.1	16,861	4,574
Civilian payroll.....	10,577	124.2	8,516	2,061
All other.....	43,155	115.0	37,526	5,629
Total, excluding retired pay.....	75,167	119.5	62,903	12,264
Retired pay.....	2,720	121.7	2,235	485
DOD total.....	77,887	119.6	65,138	12,749
Southeast Asia:				
Military personnel.....	5,616	127.3	4,412	1,204
Civilian payroll.....	1,050	124.2	845	205
All other.....	18,196	115.0	15,823	2,373
Total, SEA.....	24,862	117.5	21,080	3,782
Non-SEA, excluding retirement.....	50,305	120.3	41,823	8,482

DEFLATORS

	Military	Civilian
Military (basic and drill pay) and civilian pay, pay raises as follows (percent):		
Oct. 1, 1963.....	14.2	
Jan. 5, 1964.....		4.1
July 1, 1964.....		4.2
Sept. 1, 1964.....	2.3	
Sept. 1, 1965.....	10.4	
Oct. 1, 1965.....		3.6
July 1, 1966.....	3.2	2.9
Oct. 1, 1967.....	5.6	4.5
July 1, 1968.....	6.9	4.9
Base prior to fiscal year 1964 raise.....	100.0	100.0
Effective rate in fiscal year 1964.....	110.65	102.05
Cumulative effect of above raises from base 100.....	150.26	126.75
Ratio of current rate to fiscal year 1964 (line 3 divided by line 2).....	135.8	124.2

Note: This does not reflect the July 1, 1969, pay raise. Military basic pay and civilian salaries are not comparable, because basic pay excludes many elements of income. Roughly, a 10-percent increase in basic pay is equivalent to a 6-percent increase in civilian salaries.

Purchases of goods and services

Noncompensation component of index for Federal purchase of goods and services, per Department of Commerce:

Calendar year:

1964.....	104.8
1965.....	108.1
1966.....	108.7
1967.....	111.2
1968.....	114.3
1Q 1968.....	113.1
2Q 1968.....	113.8
3Q 1968.....	114.7
4Q 1968.....	115.4
1Q 1969.....	116.7
Unofficial estimates:	
4Q 1969.....	119.0
4Q 1970.....	122.0

Calendar 1970 average of 120.5 divided by 104.8 (calendar year 1964) equals 1.15.

Retired pay

Average retired population:

Fiscal year 1964.....	410,853
Fiscal year 1970.....	759,617
Increase 84.9 percent	
	(\$ 000)
Fiscal 1970 outlays.....	2,720,000
Outlays, \$1,209,000 in fiscal year 1964 plus 84.9 percent equals.....	2,235,000
Increases related to higher average pay.....	485,000

TABLE 3.—SUMMARY OF TOA CHANGES IN BUDGET AMENDMENTS

[In millions of dollars]

	1969	1970
Southeast Asia support:		
Munitions and related items.....	-138.6	-905.8
Aircraft procurement, net.....	-6.8	-21.0
Other procurement.....	-33.5	-30.0
Military personnel.....	-33.4	-42.6
Operation and maintenance.....	+10.6	-91.5
RVNAF modernization (phase II).....	+35.8	+120.3
Emergency fund, Defense.....		+40.0
Net, Southeast Asia support.....	-165.9	-930.6
Strategic systems:		
Sentinel.....	-100.8	-896.0
FB-111 and SRAM.....	-140.6	-387.7
Minuteman.....	+8.4	-151.0
B-52 modifications.....	-37.7	-102.6
All other, net.....	-23.4	-81.4
Net, strategic systems.....	-294.1	-1,618.7
Shipbuilding.....	-108.9	-66.9
All other, net.....	-59.0	-27.4
Net, TOA reductions in budget amendment.....	-627.9	-2,643.6

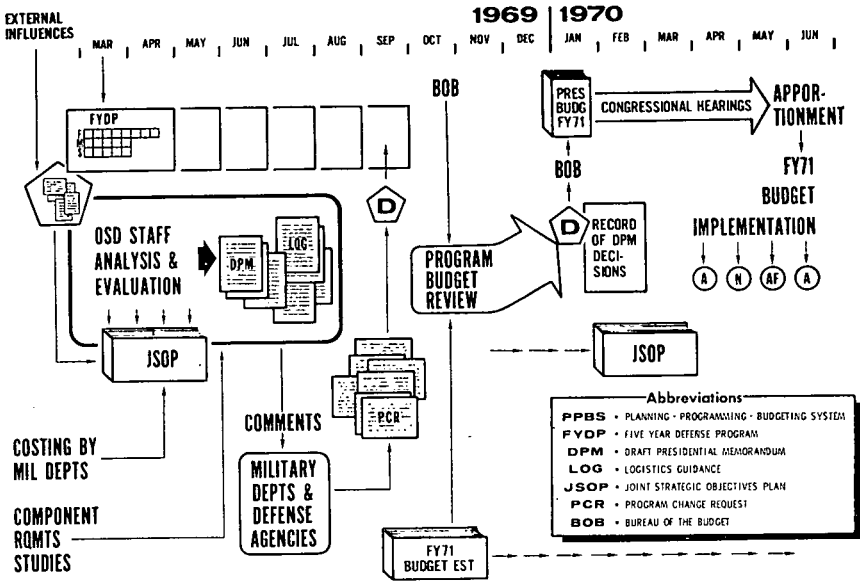
TABLE 4.—UNEXPENDED BALANCES, JUNE 30, 1969

[Dollar amounts in billions]

	DOD military and MAP		Other		Total	
	Amount	Percent	Amount	Percent	Amount	Percent
Unexpended balances June 30, 1969:						
Unobligated.....	\$14.0	10.0	\$125.2	90.0	\$139.2	100.0
Obligated.....	34.6	40.0	52.2	60.0	86.8	100.0
Total unexpended.....	48.6	21.0	177.5	79.0	226.1	100.0
Unexpended balance related to fiscal year 1970 outlays:						
As a percentage.....		61.5		152.6		115.7
In months.....		7.4		18.3		13.9

C H A R T 1

PLANNING · PROGRAMMING · BUDGETING CYCLE



Chairman PROXMIRE. Thank you very, very much, Mr. Moot. I think you have posed the issue sharply and clearly. You expect that the budget after Vietnam is going to be probably at least as big as it is. As I understand it, the President, just before the election, President Nixon, the day before the election projected—it was an extraordinarily honest action I thought—he projected that military spending by this country in 1972 would be, as I recall, about \$86 billion. Now, that wouldn't be inconsistent with what you are giving us here, somewhat higher. But you did indicate that you weren't making an allowance for modernization, improvement, and so forth.

The witnesses that we had yesterday, including the witness from the RAND Corporation, all indicated, projected a lower budget level than you do, Carl Kaysen and William Kaufman at about \$60 billion, \$50 to \$60 billion, and as I recall, the RAND Corporation estimate was around \$72, about \$72 billion.

Mr. Moor. The same time frame, Mr. Chairman?

Chairman PROXMIRE. I believe so, the assumption that the Vietnam War was over.

Would you comment on those estimates, and the reason why yours is even higher than the RAND estimate?

Mr. Moor. I am really not familiar with those. But if you would like—and if his statement provides any detail for the computations—I would be glad to—

Chairman PROXMIRE. Yes, they are detailed.

Mr. Moor. With your permission I would like to make a comparison analysis and show you the difference, and put it in the record.

Chairman PROXMIRE. Fine.

(The following material was subsequently supplied by Mr. Moot:)

EXPLANATION OF DIFFERENCES BETWEEN DOD AND OTHER POST VIETNAM
U.S. MILITARY BUDGET ESTIMATES

The estimates of the post Vietnam budget presented by Messrs. Kaysen, Kaufman and Hoag and the Department of Defense ranged from \$50 to \$75.2 billion. The basic reasons for these differences are assumptions regarding 1) the basic force to be maintained after Vietnam, 2) the rate of inflation, and 3) continuing costs related to Southeast Asia. Also the figures have been given for different fiscal years and must be adjusted to the same year for a meaningful comparison. Table 1 contains an approximate reconciliation of the various estimates and highlights some of the differences. In 1972 dollars, the range of the estimates decreases to \$56 to \$74.1 billion. The following is a more detailed explanation of the differences:

1. CARL KAYSEN, DIRECTOR, INSTITUTE FOR ADVANCED STUDIES, PRINCETON
UNIVERSITY

In the essay "Military Strategy, Military Forces, and Arms Control," Mr. Kaysen has proposed a post Vietnam budget in 1969 prices of \$50 billion. The approximately \$25 billion dollar difference between the Kaysen budget and the post Vietnam budget level stated by Mr. Moot, the Assistant Secretary of Defense (Comptroller), can be accounted for by three major factors:

1. *Major program reductions.*—The Department of Defense projections assumed, as a point of departure, that the defense program that prevailed in the pre-Vietnam years of 1962 through 1965 would be continued after the Vietnam war ended. There has been no significant changes in United States commitments and national security requirements, other than the Vietnam war, since that time, so it is reasonable to assume that the defense program would continue at its former level. In his testimony, Mr. Moot did point out that if commitments and missions were scaled back, lower military budgets would be possible. In contrast, as shown in Table 2, Mr. Kaysen recommends a \$4.6 billion reduction in Strategic Forces, based upon arms control agreements with Russia. A \$4.3 billion reduction is recommended in General Purpose Forces, which would be accomplished by sizeable reductions in forces in Europe, Korea and the United States. In lieu of planning for two major conflicts and one minor one, Mr. Kaysen recommends that the United States plan for only one major conflict and one minor one. Due to these force reductions, a supply and maintenance reduction of \$1 billion is recommended, and the military assistance program is reduced by \$.8 billion. The net of other reductions is \$1.4 billion, for a total reduction of \$12.1 billion in 1969 prices.

2. *Price increases.*—The Kaysen budget is stated in 1969 prices, whereas the Department of Defense estimates are based on the assumption that the earliest year for which a budget could be submitted without significant Vietnam costs is 1972. This is due to the time required for redeployment. Thus three years of wage and price increases must be included in the Kaysen estimates. Using a five percent wage increase and a three percent cost of goods and services increase, there would be an average annual cost increase of about \$2.5 billion due to wage and price inflation.

3. *Costs related to Southeast Asia.*—The Department of Defense estimate includes a) \$2 billion continuing support to the Government of Vietnam until the situation is completely stabilized, b) \$2 billion as a result of bringing equipment procurement and maintenance and research and development that is currently related to Southeast Asia into the peacetime program, and c) \$1 billion toward eliminating backlogs which occurred in military construction, real property maintenance, etc. as a result of the war.

The following is a summary of the additions which must be made to the Kaysen budget to have it reconcile, within a reasonable approximation, with the Department of Defense estimate. Remaining differences are due to the Department of Defense using a higher rate of inflation, which is more than offset by Mr. Kaysen's higher figure of \$51.6 for fiscal year 1964 Total Obligational Authority.

[In billions of dollars]

Basic Kaysen budget at 1969 prices.....	50.0
Recommended reductions from fiscal year 1964, at 1969 prices.....	12.1
Additional price increase, 1970-72.....	7.5
Southeast Asia related items:	
Support to the Government of Vietnam.....	2.0
Conversion of Southeast Asia equipment and research and development to the peacetime program.....	2.0
Elimination of a portion of the backlog caused by the war.....	1.0
Total.....	74.6

II. WILLIAM F. KAUFMANN, PROFESSOR OF POLITICAL SCIENCE,
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Mr. Kaufmann suggests that the range of choice for the post Vietnam military budget lies between \$100 billion and \$40 billion. The high end includes the expansion of strategic nuclear forces and retention of the current Vietnam augmentation as part of U.S. General Purpose Forces. The low end requires phasing out all land-based offensive and defensive capability, cutting back the research and development for Strategic Forces and reducing General Purpose Forces below the prevailing levels of the post-Korea 1950's.

Of the various budget levels proposed by Mr. Kaufmann the one that can be most meaningfully compared to the Department of Defense estimate is the "1965 Inflated," which Mr. Kaufmann calculates to be \$67.9 billion. The other budgets are all based upon different forces levels from the pre-Vietnam defense program. Some of the difference can be accounted for in the choice of the base year. The Department of Defense has used 1964, since this is the latest year without a significant amount of spending for Vietnam. Another part of the difference is due to the treatment of wage and price increases, which Mr. Kaufmann has estimated as slightly greater than the Department of Defense. The net effect causes the Department of Defense budget to be \$1.2 billion higher. The details are shown in the table below:

[Dollars in billions]

Source	Base year	Base year TOA	Base year TOA (1972 prices)	Increase	Average annual increase
Mr. Kaufmann.....	1965	\$50.7	\$67.9	\$17.2	\$2.5
Department of Defense.....	1964	50.7	\$69.1	18.4	2.3

¹ Department of Defense official figures indicate fiscal year 1965 TOA was \$50.6. Mr. Kaufman's figures have been used to determine the price and wage increases.

² This is the \$64.1 billion stated by Mr. Moot in his testimony, plus \$2.5 billion per year for 1971 and 1972.

The combination of the \$1.2 billion for base year and rate of inflation differences, when added to the \$5 billion Southeast Asia related items explained in the analysis of the budget estimated by Mr. Kaysen, brings the budget estimated by Mr. Kaufmann to \$74.1 billion.

III. MALCOLM W. HOAG, THE RAND CORPORATION, SANTA MONICA, CALIF.

Mr. Hoag's budget estimate of \$72 billion is for a 1965 force structure and is stated in 1969 dollars. However, these figures include the cost of weapons system modernization through fiscal year 1971. As in the case of Mr. Kaufmann, Mr. Hoag has used 1965 as the base year, but has used outlays instead of Total Obligating Authority. According to the figures presented in his statement to the Committee, he has applied a 21 percent increase to the pay and standard consumable supplies portion of 1965 outlays of \$47.4 billion, which adds \$10 billion. (Official figures put 1965 outlays at \$47.1 billion.) Mr. Hoag states that 1965 weapons system procurement should be increased by another 30 percent through 1971 for weapons "Modernization/Inflation," since DoD will be modernizing the force with systems that cost more due both to price increases and improved capabilities. The amount that Mr. Hoag is attributing to modernization can be estimated by applying the non-compensation component of the index for Federal purchases of goods and services (1965 to 1969) to 1965 procurement outlays, which is 8 percent of \$15.4 billion or \$1.2 billion. Deducting this \$1.2 billion from the Modernization/Inflation of \$14.6 billion stated by Mr. Hoag, the modernization portion is \$13.4 billion. Mr. Moot did point out that his calculation of \$74.1 billion did not include force modernization.

A reconciliation of the differences between the estimates of Mr. Hoag and the Department of Defense is shown on Table 3. Mr. Hoag's estimate, adjusted to remove the modernization factor, can be derived as \$58.6 billion for fiscal year 1969. To reconcile with the Department of Defense estimate, further adjustments must be made to allow for the difference between 1964 Total Obligational Authority and 1965 Outlays (\$3.2 billion), pay and price increases from 1970 through 1972 (\$7.5 billion) and Southeast Asia related costs (\$5 billion). The resulting \$74.3 billion is slightly higher than the DoD estimate since Mr. Hoag used a higher rate of inflation, but this is mostly offset by the fact that the Defense estimate is based upon the 1964 program and contains an additional year of inflation.

TABLE 1.—SUMMARY OF POST-VIETNAM BUDGET ESTIMATES

[Current dollars in billions]

Source	Fiscal year—			
	1969	1970	1971	1972
Department of Defense ¹		264.1	64.1	64.
Inflation ²			2.5	5.0
Subtotal.....		64.1	66.6	69.1
Southeast Asia related items.....		11.1	8.0	5.0
Total.....		75.2	74.6	74.1
Mr. Kaysen ⁴	250.0	50.0	50.0	50.0
Inflation ³		2.0	4.0	6.0
Total.....	50.0	52.0	54.0	56.0
Mr. Kaufman ⁵				267.9
Mr. Hoag ⁶	272.0	72.0	72.0	72.0
Modernization.....	-13.4	-13.4	-13.4	-13.4
Subtotal.....	58.6	58.6	58.6	58.6
Inflation ³		2.5	5.0	7.5
Total.....	58.6	61.1	63.6	66.1

¹ Based upon 1964 force, plus Southeast Asia related items.² Original estimate.³ Inflation estimated at 4 percent per year.⁴ Based upon 1964 force with reductions.⁵ Based upon 1965 force.⁶ Based upon 1965 force.

TABLE 2.—BUDGET FIGURES CITED IN "MILITARY STRATEGY, MILITARY FORCES, AND ARMS CONTROL"

[In billions of dollars]

Military program ¹	TOA for fiscal year 1964 ¹	TOA for fiscal year 1964 (1969 prices) ¹	Synthetic budget for fiscal year 197* (1969 prices) ¹	Differences in synthetic budget and fiscal year 1964 program (1969 prices)
Strategic Forces.....	9.3	11.1	6.5	-4.6
General-purpose forces.....	17.9	21.7	17.4	-4.3
Intelligence and communications.....	4.3	5.0	4.5	-.5
Air/sealift.....	1.1	1.3	1.3	.....
National Guard, Reserves.....	1.9	2.5	3.0	+ .5
Research and development.....	5.0	6.2	5.6	-.6
Supply and maintenance.....	4.1	4.9	3.9	-1.0
Training.....	5.5	6.8	6.1	-.7
Administration.....	1.2	1.3	1.2	-.1
Military assistance.....	1.3	1.3	.5	-.8
Total.....	51.6	6.21	50.0	-12.1

¹ Taken from "Military Strategy, Military Forces, and Arms Control."

TABLE 3.—Reconciliation of post-Vietnam budget estimates—Mr. Hoag and the Department of Defense

[In billions of dollars]

Fiscal year 1965 outlays.....	\$47.4
Pay and consumables inflation.....	10.0
Estimate of weapons system inflation.....	1.2
Hoag estimate adjusted for inflation through fiscal year 1969.....	58.6
Difference between 1965 outlays and 1964 TOA ¹	3.2
Additional price increase 1970-72.....	7.5
Southeast Asia related items ²	5.0
Total.....	³ 74.3

¹ Calculated to be \$50.6—47.4.² See the discussion on the estimate made by Mr. Kaysen.³ This figure differs from the DOD estimate of \$74.1 billion due to differences in the base year and rates of inflation.

Chairman PROXMIRE. You spoke in your statement about the improvements that Secretary Laird is introducing in the procurement process and elsewhere. I have great respect for Secretary Laird. He is from my State. He is one of the ablest men who has ever served our State in the House of Representatives. And I think he has got a good hard-nosed approach to the military, and doesn't have any unnecessary awe; he has respect, as all of us have, but not unnecessary awe for top brass. And I think he was a good choice. But isn't it true that Secretary McNamara also introduced some improvements, and as was indicated earlier today, those improvements were widely hailed? It seems to me that one of the big faults of the past is that Congress didn't know, wasn't told, wasn't given the full information, didn't have an atmosphere in which we could vigorously debate pro and con the choices. What I want to ask you is whether the PPBS, which as I understand it provides very largely for an evaluation of alternative choices of achieving the goal, whether this material can and will be made available in general to the Congress so that we can have an informed and responsible debate, and if not, why not.

Mr. Moor. Mr. Chairman, at the risk of having to call Director of the Budget Mayo after I leave and inform him if what I am going to say—we have offered very recently to go with the Director to discuss with the committees of Congress the restructuring of our submission on a planning-programing-budgeting system basis, which means that we would put down our major programs, which are our programs to achieve our objectives, rather than the previous budget activity approach.

Now, this the Bureau has indicated interest in. And they are evaluating the format, and the type of necessary documentation which would provide a vehicle for discussion with the committees. And I answer your question therefore by saying that not only are we perfectly willing to provide this type of a justification approach, but I think it meets in many respects not only the recommendations of this committee, but it also meets the recommendations of the Budget Concepts Commission.

Chairman PROXMIRE. We need more than the program structure. We need the analysis, and we want it in detail. That is the kind of thing that would enable us to do a far more competent job up here. We could really dig into these decisions.

Mr. Moor. Again I would say this, that we haven't felt in the Defense Department, at least since I have been there in this job, any lack of investigation or knowledge concerning our budget calculations. As you know, our committees have investigation staffs, and these gentlemen do spend considerable time with us, and they do go over the working papers, and they do go over the calculations, and they do—

Chairman PROXMIRE. But Congress doesn't. And we after all are the ones that do have to make the decisions.

Mr. Moor. The gentlemen I am talking about are staff members of congressional committees, sir.

Chairman PROXMIRE. We haven't been given this information in detail on the basis of having the information at the time the decision is made. We are told months after or years after the C5A has had a very large increase in its cost that the overrun is a fact. We have not been told this until after it was too late to do anything except engage in some recrimination and try to make the same mistake in the future.

Mr. Moor. I think it is hard to answer. First of all, let me say this, Mr. Chairman. Secretary Laird has already stated that he wants, wherever possible, without compromising anything in the national security area, a full disclosure of everything. Now, all fiscal calculations and all fiscal computations, I consider in the area certainly of availability.

It depends of course upon whether or not current decisions have been made which overtake previous computations, calculations and plans. Obviously, what anyone would want to review would be the latest computation. I think particularly in this respect you will be gratified to know that Secretary Laird again has sat down with the Comptroller General concerning the availability of information, and Secretary Laird has charged me to make sure that the General Accounting Office, the Comptroller General, have adequate, responsive,

timely data to evaluate for any project that the committees of the Congress have charged the Accounting Office to look at—

Chairman PROXMIRE. To some extent there is a classification problem.

Mr. MOOR. There is a classification problem.

Chairman PROXMIRE. And I think that classification problem is one that ought to be looked at very fully with a notion to do anything you can to declassify it. As I say, this information is made available to a few staff members of the House Armed Services Committee and the House Appropriations Committee and the corresponding committee in the Senate. Some people in GAO have it. But most of us up here do not have it, so it doesn't get into the debate. And the people who do have this information are very sympathetic. They work in close association with the Defense Department, and there is nothing wrong with that. But those who might provide a very wholesome adversary challenge to these expenditures don't get the information, and don't know it.

Mr. Moor. I think there are two basic problems. And they both stem from the classification point of view, Mr. Chairman. One involves the sometimes delicate situation of foreign policy and State Department policy. And the other involves knowledge in terms of developments, research developments on technological breakthroughs. And for this reason certain of the data becomes classified and stays classified while it is in that stage. But Secretary Laird has instructed that we declassify as much as possible, as quickly as possible. And I think that you will find that the availability of information to the congressional committees will improve from your viewpoint.

Chairman PROXMIRE. I hope so, so that we can set up some kind of regular challenge in which people who are outside of the Armed Services Committee would be in a position to request that information on a substantial basis be declassified, because again and again we have found classified information that there was no reason to be classified, and it has prevented intelligent congressional consideration.

I would like to ask you this.

In your discussion of the defense budget as a percentage of GNP, you point out that military outlays have been averaging between 8 and 10 percent since the end of World War II. Last year, there were 9.5 percent of GNP.

Is there something magic about the 8 to 10 percent figure? Is there any reason, in your opinion, that our military outlays as a percentage of GNP should hover around this level?

You, yourself, point to the 1948 figure of 4.5 percent.

If we go back prior to World War II, we find that military outlays average considerably lower than 4.5 percent of GNP.

By what process is it determined that 8 to 10 percent of GNP is a proper level of military spending. Why not two percent or for that matter, 20 percent?

Mr. Moor. I think that is a derived figure, Mr. Chairman, and there is no magic number. You will recall that I equated our non-Southeast Asia war costs or defense costs to a 5½ percent of the

GNP. So the answer to your question is, there is nothing magic about the range of 8 to 10 percent.

Chairman PROXMIRE. My time is up.

Congressman CONABLE?

Representative CONABLE. Thank you, sir.

Mr. MOOT, what is your background in budgeting?

Mr. MOOT. I am what you call a professional bureaucrat, Mr. Conable. I have worked for the Government since the war, which was 1946. I became a comptroller in the Navy Department, and I have been in and out of comptroller and logistics works. I was a comptroller of the first consolidated agency set up by Mr. McNamara, which was the Defense Supply Agency.

I then came back to the Office of the Secretary to run his cost reduction program, and to develop policy vis-a-vis the transportation program and introduce what I hope has been a successful competitive bidding method in transportation.

I left there to go to the Small Business Administration, and have been back in the Defense Department in this job since past August.

Representative CONABLE. Can you tell me how many people Secretary Laird has replaced since the administration changed?

Mr. MOOT. Are you talking, Mr. Conable, about career—

Representative CONABLE. I am talking about people in the upper level of the Defense Department, whether they are career or what the basis of their employment is.

Mr. MOOT. The reason for my stumbling a little bit is that I had to think. He has replaced no one in my organization, let me put it that way. And we have the audit function, the accounting function and the budget supervision function with about 350 people.

Mr. CONABLE. How many Assistant Secretaries of Defense are there?

Mr. MOOT. We have seven Assistant Secretaries. Some you may call holdovers or a continuation. And they include myself and possibly the appointment of Daniel Henkin, who was a Deputy Assistant Secretary for Public Affairs. The Assistant Secretary for Administration is new, the Assistant Secretary for Internal Security Affairs is new, the Assistant Secretary for Manpower is new. The Assistant Secretary for Logistics, Secretary Shillito, was previously Assistant Secretary for Logistics in the Navy.

And the Assistant Secretary, acting, for Systems Analysis is retained. So—

Representative CONABLE. There are four out of seven retained?

Mr. MOOT. That is about right, sir.

Representative CONABLE. And have there been any changes made below the assistant secretary level?

Mr. MOOT. No, sir. There have probably been a fair amount of changes in the policymaking positions, the deputy assistant secretary area, particularly perhaps in the foreign policy area of the Defense Department, in International Security Affairs, but other than that, as I say—in my organization there have been none, and in logistics there have been none.

Representative CONABLE. One of the reasons I am asking this is that there is a tendency here in the Congress to think of the Pentagon as something which goes on and on and has an identity completely apart from the administration that is responsible for it at any given time. Attacks on the Pentagon apparently result in defensive statements automatically regardless of changes of administration. I wonder about the extent to which there have been changes.

This was something of interest to me, because it seems like a rather unique phenomenon in this political world that the military has such a separate identity from the rest of the political scene.

Mr. MOOT. I can assure you, Congressman Conable, that there is new life and new breath in the Pentagon these days with Secretary Laird and Secretary Packard.

Representative CONABLE. I would expect that, knowing the personalities of the people involved. I wondered how that was reflected on the level on which you operate.

Let me ask you a few specific questions about your projection, sir. Do you have any idea of how much money we spend on troops overseas outside of the Southeast Asia area?

Mr. MOOT. The figure does not come readily to mind, but I would be glad to put it in the record.

Representative CONABLE. I would appreciate that.

Mr. MOOT. Are you restricting it to troops overseas?

Representative CONABLE. Well, I am interested—

Mr. MOOT. You mean our total defense expenditures overseas outside of Southeast Asia?

Representative CONABLE. I am interested primarily in the figures you can associate with the number of men we have abroad in Europe, in places like Korea, and so forth. And I am sure these figures are available.

Mr. MOOT. They are available.

Representative CONABLE. My first thought is that it might be one area of possible saving—but as you say, it would reflect a change of mission, a change of policy. Everybody is distressed about the size of the defense figures and the burden they represent to the American taxpayer. So you will find Congress casting about in these various areas. And that is one I am interested in.

Mr. MOOT. I would be happy to put it in the record.

(Mr. Moot subsequently submitted the following:)

The FY70 budget includes approximately \$14 billion for (1) the support of U.S. general purpose forces in Europe, (2) U.S. general purpose forces not in Europe but maintained primarily for use in a European contingency, and (3) CONUS support for the forces in (1) and (2).

The costs shown are based upon cost model estimates. They represent approximately what would be saved if all of the U.S. NATO forces and support requirements were entirely dropped and were not in existence during the FY70 funding period.

The \$14 billion is broken out by budget category in the following table:

*Estimates of fiscal year 1970 budget costs of U.S. general purpose forces for
NATO*

[TOA in billions of dollars]

Investment (procurement and military construction accounts) -----	\$4.8
Operations (military personnel and operations and maintenance accounts) -----	9.2
Total -----	14.0

The FY70 Budget includes approximately \$1.5 billion dollars for U.S. General Purpose Forces in Korea. This estimate includes costs for those U.S. General Purpose Forces planned for location in Korea during FY70 as well as a proportionate share of costs of CONUS-based support (training, logistics, medical) for these forces. \$1.5 billion is a cost model estimate of the approximate savings in the FY70 Defense Budget if all the U.S. forces in Korea and their support had been removed from the DoD force structure before the FY70 funding period.

Representative CONABLE. I notice in your statement you said nothing about replacing the stockpile that has been expended and the offshelf items that have gone into the South Vietnam operation. The extent of needed replacement must be considerable.

This is something which has been referred to frequently in other statements. Perhaps it is included in the \$11 billion you fixed for retrograde movement from Vietnam.

Mr. Moor. It wasn't that I overlooked it, Mr. Conable. In my postulation I was assuming that we could reconstitute the essential critical items of the stockpile during the 2 years of \$11 billion phase-down. There is, as you say, a very considerable requirement to reconstitute inventories. Of the cost of the war now we are approximately spending some \$9 billion of our \$24.9 billion expenditures for major procurement. And a good part of this, even after combat ceases, would have to go back into stockpile.

Representative CONABLE. Isn't it true, despite the planning that has gone into the Defense Department budget in recent years, that there has been a rather large figure for supplemental appropriations about every year? I have heard, for instance, of occasions in which contingencies for the entire year were exhausted during the first quarter of the fiscal year. And I am wondering if you have any figures on that. I don't ask you to go back very far, but I would like to get an idea of the extent of the problem, because of course supplemental appropriations reflect money that has to be outside your planning process—unexpected requirements.

Mr. Moor. That is a very pertinent question. And as a matter of fact, while I do not have it quantified in dollars, I did have the budgets checked since 1961, and it is true that the Defense Department has submitted at least two supplementals each year since 1961. And this is without consideration of several amendments that have taken place during the same period of time.

The early phase was a reconstitution of our military posture during a transition of administration. The latter phase of the supplementals has been due to the Vietnam war, where each time the budget

assumption has generally been that the year after, and therefore the funded leadtime into that year, would not require support at the same level of activity.

Representative CONABLE. I understand that Secretary McNamara did a great deal of reprogramming. Does the Secretary of Defense have any unusual powers in this respect permitting him to reprogram where normally the secretary of a department would not?

Mr. Moor. The Secretary has no unilateral authority. Let me put it that way. The reprogramming authority that the Secretary of Defense has, has been determined in cooperation with the controlling committees of the Congress, that is, the authorization committees and the appropriation committees.

It is true that a considerable amount of reprogramming goes on. But in a very significant respect this is a good control. For example, Secretary Laird very recently required the Navy, looking at significant ship cost overruns, to reprogram from lower priority programs to cover those ship cost overruns. So with the recognition and the approval of the Congress, the Secretary of Defense does have the authority to reprogram from lower priority to higher priority requirements. This means, of course, that the total budget does not change.

This is done—in the case of quantities and significant cost changes in weapons systems with the advance approval of the Congress. It is done in the operational area with the notification to Congress within 24 hours after the action has been taken.

Representative CONABLE. Is this reprogramming process, if it goes on on a significant level, closely related to the need for supplemental appropriations? Sometimes and sometimes not, perhaps.

Mr. Moor. It is related in the sense that the Department generally makes maximum use of its reprogramming capability by weeding out softer programs which time has overtaken to provide for higher priority programs before it comes to Congress with the supplemental.

Representative CONABLE. Thank you. My time is up.

Chairman PROXMIRE. Congressman Moorhead?

Representative MOORHEAD. Mr. Chairman, thank you.

Mr. Moot, first, I agree with you when you say in your prepared statement that improved management techniques wouldn't make that much of a saving of money. I think it is important, but I think probably more important would be examining whether it is necessary to make certain procurements, given the commitments and the threats, whether some of those—if we can eliminate them, and then have even greater savings as you say by alteration or scaling down of our commitments and missions. However, having said that, then I want to come back to procurement, because I think that it is easier to approach it that way. I would like to ask you some legal questions particularly about the C5A program, because after what I read in the newspaper, I get more confused about it. What is the status of the C5A contract? Did the Congress authorize the run A procurement of the C5A?

Mr. Moot. The run A, the first 58 aircraft?

Representative MOORHEAD. Yes.

Mr. Moor. Yes. I don't think there is any question about this. And if there is I will quickly correct the record. But I don't think there is any authorization or appropriation question concerning the run A procurement.

Representative MOORHEAD. So we, the Government, are legally bound by contract to procure and pay for whatever the contract requires for run A?

Mr. Moor. That is right, sir. I would like to add, and first of all preface my remarks by saying I am not a lawyer, as you know. But the Government does have the right to terminate any contract, there is a termination clause which allows us to terminate the contracts and incur the cost of the termination. So to that extent we could terminate the 58 run A C5A aircraft.

Representative MOORHEAD. I understand that there has been a limited option exercised for 23 planes under run B. Was the exercise of this option authorized by the Congress?

Mr. Moor. Let me say first of all, Congressman Moorhead, that I would like to amplify and perhaps correct the record, because there is a legal question being reviewed by the Department at the present time. And with that caveat I will give you my best understanding as a layman.

Representative MOORHEAD. Certainly.

Mr. Moor. The option for the 23 aircraft, which is popularly known as the 4th Squadron, was exercised with a provision which legally, I understand, distinctly limited the liability of the government to the long leadtime components required to be on hand prior to the start of work in fiscal year 1970, and if terminated prior to 1970, the terminations costs that might have been involved in processing these long leadtimes. But nothing else in the sense of 23 aircraft, because the general provisions of the contract predicated all action under the contract upon the availability of funds appropriated by Congress.

Representative MOORHEAD. So there is a provision in the contract that says that we would have no termination charge on run B, and that the contract really wouldn't be binding if there was no appropriation; is that correct, sir?

Mr. Moor. No, sir; except that as I have previously mentioned—and as I am sure you will appreciate—in each weapons system the Congress not only authorizes a procurement for the year in question, but also authorizes and appropriates some leadtime components into the next year's production in order to keep a stable rate of production.

Representative MOORHEAD. Then is it your testimony that for run B, with the exception of the long leadtime components, the Government is under no obligation to exercise any part of the run B option; is that correct, sir?

Mr. Moor. Yes, sir; although I would again like to make sure that I have permission to edit the record—my lawyer would object if he was here for even responding to your question. But I am giving you my fiscal, layman's understanding—and I am very interested in this point, as you can well appreciate, being the comptroller—it is my understanding that we are not committed legally beyond that which

I have stated, pending availability of funds and the allocation of such funds for the purpose.

Representative MOORHEAD. And then for that portion of run B for which no option was exercised, we have even less of an obligation; is that correct?

Mr. Moor. That is right, sir.

Representative MOORHEAD. On the Cheyenne helicopter, there have been some statements that this whole weapons system was cancelled, and other statements seem to say that it was merely postponed. Can you tell us what the official status of that procurement is?

Mr. Moor. I don't think I am really qualified to get into any technical aspect of this program. From my comptroller viewpoint, Congressman, it is my understanding that we are going to continue financing a research level to eliminate the problems that plague the helicopter. And that is the extent of our continuation. Beyond that I am out of my depth.

Representative MOORHEAD. In your prepared testimony you described the relationship between the Secretary of Defense and the Bureau of the Budget, and particularly you say—the inference I get from your testimony is that the Defense Department is in just about the same position vis-a-vis the Bureau of the Budget as are other departments and agencies of the Government.

Mr. Moor. I really can't speak for all agencies. Having run the Small Business Administration and having had many discussions with the Bureau of the Budget, and being in my current position, I would say for all practical purposes we are in about the same position, Congressman.

Representative MOORHEAD. Former Secretary Udall was up before this committee preceding you, and he certainly felt that as Secretary of the Interior he was scrutinized and subjected to harsher treatment by the Bureau than was his colleague in the Defense Department.

Mr. Moor. I think we may both be right. I think he may be referring to a different time than I am. I am talking about within the last 2 years, and he is talking about Secretary McNamara's time. And I think there might be a difference.

Representative MOORHEAD. You say in your testimony that subsequently the Director marks up the Defense budget and transmits it to the President. If he—that would be the Secretary—if he disagrees with the conclusions reached by the Director, the Secretary of Defense may appeal to the President for reconsideration. That may be explained by the time frame. But former Budget Director Schultze was up before us the other day, and he said—it sounds as though you are describing different processes really, and it may be the time frame—he said:

I think the same approach can be taken with respect to the procedures used by the Budget Bureau to review the budget of the Defense Department. In all other cases agency budget requests are submitted to the Bureau, which reviews the budget, and then makes its own recommendation to the President, subject to appeal by the agency head to the President. In the case of the Defense budget, however, the staff of the Budget Bureau and the staff of the Secretary of Defense jointly review the budget request of the armed services. The staff makes recom-

mendations to their respective superiors. The Secretary of Defense and the Budget Director then meet to iron out differences of view. The Secretary of Defense then submits his budget request to the President, and the Budget Director has the right of carrying to the President any remaining areas of disagreement which he thinks warrant Presidential review.

Maybe I am making too much of it, but it seems to me—

Mr. MOOR. I understand the distinction.

Representative MOORHEAD. It seems to me there is a question as to who is the appellant and who is the appellee, really.

Mr. MOOR. I really think I ought to do a little research—I would like again to expand on this in the record, because it may be semantics. I am talking about my time frame, which evolved from my Small Business Administration experience with Charlie Schultze, and subsequently Charles Zwick, with President Johnson, and currently Director Mayo with President Nixon. I think from all practical points of view, both Director Zwick and Director Mayo had direct continuous access to the President concerning the Defense budget, and made positions known during the process to the President at the same time that we were determining and working it out with the Bureau staff. And these were independent consultations by the Director of the Budget with the President. So that I think that there was a complete independence of action, and there were many, many consultations between the President and the Secretary of Defense; the President and the Director of the Bureau of the Budget; and the Director of the Bureau of the Budget and Secretary of Defense. So that to all intents and purposes I think there was a complete, independent, full dialog without anyone really being in the sense of appealing versus an initial action. I think, as far as the documentation is concerned, the Defense Department, just like any other agency in the Government, gets a formal so-called allowance letter from the Director of the Budget Bureau which says:

This is how much the President has authorized you to put in the budget, and this is how much subsequently is authorized for your use.

The question that I would like to research which you raise is, how does it compare with other Cabinet officers in terms of who does what first. I think there is a significant difference in timing. Because of the size, and the programing and planning process of the Defense Department, we submit our budget a good month later than the other agencies, and have picked up the Bureau of the Budget staff earlier in order to help us in our joint review, and to provide them access to the same information that we are looking at in our earlier review. It may be that from the Department to the Budget Director and then to the President an appeal process gets foreshortened in our later submit, in contrast to the other agencies. Again, I think the Budget Director himself is probably the best man to ask, really, on this position.

Representative MOORHEAD. And your research will provide you with a quote of Secretary McNamara before a congressional committee in which he was asked if his recommendation had ever been reversed when he had a difference with the Bureau of the Budget. And he said, in 4 years, no. He said, "Maybe there was one time, but I can't recall it." I doubt that there are many agency heads that can say that.

Mr. Moor. I wouldn't want to speak in the time frame of Secretary McNamara, because there was a different relationship there.

Representative MOORHEAD. Thank you, Mr. Chairman. My time is up.

Chairman PROXMIRE. Mr. Moot, the size of our military budget depends more than anything else on the Russian threat, the Russian capability, what Russia can do, and what Russia in our estimate would do. And it does so in several ways—certainly the size and the cost of our nuclear deterrent, the size and cost of our troops in Europe, the size and cost of our troops in Asia, the size and cost of our Navy, the size and cost of our Air Force. Now, it is my understanding that the new President and new Secretary of Defense have a different evaluation of this Russian threat than did President Johnson and Secretary Clifford, for example. This is one of the reasons why the new Secretary has been urging with considerable force the kind of nuclear deterrent weapons which he feels are essential. What is the reason for this difference between the view of the Defense Department now and then with regard to Russia?

Mr. Moor. Well, I would answer that by saying, Mr. Chairman, to the best of my knowledge the difference is simply time. I think Secretary Laird in his evaluation is talking about the new intelligence community evaluation that he has been looking at in the time frame since he took office, which, as I explained earlier in our system, is an annual reevaluation, reassessment of the threat.

Chairman PROXMIRE. This is capability?

Mr. Moor. This is capability, that is right.

Chairman PROXMIRE. The reason I asked that is because we are going to have on June 23 and June 24 before this committee some of the outstanding experts on the Russian economy, Russian capabilities, and so forth, that we can get. And we will do our best to try to develop a record on which Congress can make a judgment, because I think this is so crucial in determining how large a military budget we are going to need. Isn't there a difference in the definition of the nature of the Russian threat? Was it always a question of simply evaluating a capability and assuming the worst and then preparing for the worst?

Mr. Moor. I don't think that from my point of view that you have accurately stated the situation as it is at the moment.

Chairman PROXMIRE. Let me rephrase it. It is my understanding that Secretary Laird has indicated that in his judgment it is the Russian capability that is essential.

Mr. Moor. That is right, sir.

Chairman PROXMIRE. My question is, Has our judgment always been based on the capability?

Mr. Moor. I was not differing on the question of capability versus intention. However, I was starting to point out that the military budget that you view and look at in the Congress results from military strategies which are calculated risks to meet military objectives which stem from the national security objectives. Taking it the other way around, the basic national security objective is to insure the freedom, continuing freedom of the United States. And in its wording it

implies, of course, a general relationship in terms of a world community of nations. The military objectives which stem from that are to deter aggression or attack on the United States, and if deterrence is not possible, to cope with such an attack.

To deter attack on other areas in the world where our national interests are vital, and if deterrence is not possible, to cope with such attacks.

To insure the freedom of the United States of the seas, the air, and the space.

And to, of course, respond to direction from adequate political authority; namely, the President.

Now, these military objectives, when the threat is evaluated against this, then get down to a determination of where are our interests vital, how many possible contingencies will happen at the same time, and therefore how many forces do we need to have in being to handle how many contingencies—these are all calculated risks. I don't think there is anyone in the Defense Department—

Chairman PROXMIRE. What is the assumption on the risk now? Is it two and a half?

Mr. MOOR. Two and a half, two major and one minor.

Chairman PROXMIRE. What would this mean, a war with Russia and a war with China, or—

Mr. MOOR. It would mean an Asian war and a European war, and a limited operation, perhaps in Latin America, or something along that line. The questions, of course, that the military people must always ask is what will happen at the same time, in other words, could there be two Asian, or could there be a major European war, a World War II type of operation? So it is the scale of the threat, the interests involved that determine their military strategies. And I don't think, as I started to say, there is any responsible military authority, one of whom I am not, in the Defense Department that would state that we were ready to meet all contingencies that could arise under the threat as it was evaluated.

Chairman PROXMIRE. Have we changed the nature of the quality of the intelligence from the remarkable job they did or didn't do with regard to Cuba, with regard to the Dominican Republic, and so many other areas where many feel that they have been disastrously misinformed?

Mr. MOOR. I don't think I am really qualified to comment on that. But what I would really like to add, Mr. Chairman, is that earlier I had made the point that the military strategies that were passed from the previous administration to this administration are currently being reviewed very intensively, and the costing of the risks is going on with input from us and input from other departments, and the task force is working on an integrated department basis. So that the National Security Council, charged as it is on the integration of domestic and military policy, as I indicated before, will be looking at various levels. And this is the key decision that Congressman Moorhead was referring to. To scale down the military budget in other than areas of management improvement, there has to be a scaling down of the com-

mitments that the Defense Department must meet. And this I do not predict will happen. But I do predict that this administration is just not accepting all of the strategies that it inherited. It is looking at them, and is looking intensively.

Chairman PROXMIRE. The *Congressional Quarterly* and Robert Benson, formerly an employee in your office, have detailed \$9 to \$11 billion in cuts in defense spending which could be made with no loss in national security. I am sure that you are familiar with these estimates.

Could you appraise these estimates for the subcommittee?

Mr. MOOR. I would like to say that the items that are listed in either the *CQ* or Bob Benson's articles are all items that have been and are continuously raised in the Department. The current evaluation of the items I would be glad to put in the record, because we have evaluated them for Congress in quite some detail. But generally they fall into the same kind of suggestions that are made repetitively, and not without merit, but not against the framework of the overall situation. The first kind is the same as saying if Congress was only in session 6 months a year, and therefore only needed to be paid 6 months a year, and the citizenry expected you to have a local office——

Chairman PROXMIRE. Of which type are these? Give me an example.

Mr. MOOR. I will give you an example of one of them in Bob Benson's article, that 30 days' annual leave for military personnel a year is really more than they need. There can be considerable saving if we cut that to 15 days. And that is a logical conclusion. But it is the type of suggestion that is the same as I was facetiously turning around the other way.

And there are several of these.

The other type also can be reasonable suggestions, but they must be taken in context. The military forces which determine the size of our military budget are a balance of forces which are aimed at accepting a calculated risk against the contingencies that may arise. And each time you look at one of the major elements of that balanced force and pull it out and say, "How cost effective is this," you will have to rebalance the remaining forces. The analytical work that is done in the Defense Department is aimed at getting the most cost effective balance of forces. It is true that as the threat changes and the military strategies change, our force structure can therefore change, our balance of forces can change. Therefore, as time goes on and the international situation changes the budget likewise can change.

Senator PROXMIRE. There is a basic inefficiency, at least on the basis of the analysis by Phillips in the *Congressional Quarterly*, in which he points out that we have a 10-to-12-to-1 ratio of supply and support troops to combat troops in Vietnam, and an excessive ratio of logistics to combat in Europe. As a matter of fact, the Rand witness yesterday testified that the Secretary of Defense should issue a memorandum to the U.S. Army stating it should design its force structure on the model of the Soviet Union, a 3-to-1 ratio, so as to increase its efficiency and decrease its cost. Now, this, it seems to me, is a suggestion that obviously would save a tremendous amount of

money. The suggestion in the Congressional Quarterly for saving in military personnel is \$5½ billion if we reduce our logistics operation. It is terribly inefficient as compared to any historical experience or the Soviet Union. Why could not this kind of efficiency be put into effect?

Mr. Moor. Let me first of all say that such studies concerning the combat to supply ratio are constantly going on in the Defense Department—the pipeline of people, for example, transients are constantly under review—and the ratio is continuously being improved.

The question of the relative ratio between Russia and the United States in this area is fairly complex. And I am not an expert. I would like, if you would want me to, to put in the record the basic reasons for the difference. But the factors involved are first of all the standard of living, which is different in terms of support to our combat troops. Hot meals in combat is an illustration of one difference in approach.

Second, the philosophy we use vis a vis the Russians, whereby we have a smaller number of ground troops, for example, but full divisions, and they really just have a combat framework, and then constitute divisions upon a requirement by mobilizing, so that their support requirement is different.

Third, the different kinds of commitments of Russia vis a vis the United States, whereby we, for example, are operating with a 10,000 mile pipeline in Vietnam, and to the best of my knowledge, Russia has very few commitments outside of a land-to-land connection.

These are the kind of things that require careful deliberation and understanding. There isn't any easy answer.

And yet I hasten to say, there is room for improvement. And we are constantly trying to improve.

Chairman PROXMIRE. Will you put all those evaluations in the record.

Mr. Moor. I would be happy to.

(The materials which follow were later submitted by Mr. Moot:)

The following are existing Department of Defense evaluations of the budget cuts proposed in the articles "Defense Budget Cuts of \$10.8 Billion Seen Feasible" (*Congressional Quarterly*, June 28, 1968) and "How the Pentagon Can Save \$9,000,000,000" (*Washington Monthly*, March 1969). It should be emphasized that these evaluations do not necessarily reflect the position of the current Administration. The National Security Council and the Department of Defense are in the process of reviewing and studying the international situation, military strategy and required forces. The conclusions of these studies will be forwarded when available.

Some early results of these reviews include the cancellation of the Manned Orbiting Laboratory (MOL) Program, the termination of the production contract for the Cheyenne helicopter and the reorientation of the antiballistic missile program.

DEPARTMENT OF DEFENSE POSITION ON SELECTED POINTS RAISED IN
CONGRESSIONAL QUARTERLY ARTICLE—"DEFENSE BUDGET CUTS OF \$10.8
BILLION SEEN FEASIBLE"

(CONGRESSIONAL QUARTERLY, JUNE 23, 1968)

ANTI-BALLISTIC MISSILE DEFENSE

Congressional Quarterly: "ABM System. Probably one of the most clear-cut items of 'fat,' in the view of most of CQ's sources, was the ABM system designed to protect the nation against an intercontinental ballistic missile attack."

DoD Position: President Nixon has reviewed the requirement for an antiballistic missile system and has recommended the Safeguard ABM program to Congress. The Safeguard program has reoriented and rephased the entire Sentinel program, the ABM system that the previous administration had under development. This recommendation was based on an examination of the actual and potential strategic threats which face the United States in the decade of the 1970's and the alternative methods of meeting these threats.

The threats include—

1. The Soviet missile threat against our population and cities;
2. The Soviet missile threat against our land-based strategic offensive forces;
3. The Chinese ICBM threat against our population and cities;
4. An accidental or "demonstration" missile launch.

Although the Safeguard system cannot provide an effective defense of our cities against a massive and sophisticated Soviet attack, it can ensure the survival of the minimum required number of land-based ICBM's and bombers; it can provide a very high degree of protection for our population against the kind of attack the Chinese Communists may be capable of launching in the 1970's; and it can defend the Nation against an accidental ICBM launch or an intimidation attack. While there might be some question as to whether an ABM system would be worth its cost to place ourselves in a position to defend against any one of these potential threats, there can be no question that it will be a worthwhile investment to be able to defend ourselves against all of these threats.

Deputy Secretary of Defense David Packard summarized the need for Safeguard in the following statement before the Senate Armed Services Committee on May 13, 1969.

"To the maximum extent possible we must insure protection of our people and our resources against a nuclear attack. Naturally against the USSR the means available to us is through the maintenance of an adequate retaliatory force to accomplish deterrence. Even under conditions of a first strike by the USSR the force must be such that it can effect unacceptable damage on the USSR. Should its effectiveness be threatened in any way, countermeasures must be taken to maintain the required effectiveness. It must be crystal clear to the USSR that we do have this capability, we intend to maintain it, and we do have the intention to use it if we are attacked.

"In starting let me emphasize that I'm convinced that we now have adequate forces for deterrence and that those forces should continue adequate for a few years to come no matter what action the USSR takes. Conversely, there are certain developments occurring in the USSR strategic weapon deployment which, if continued, could cause a threat to essential elements of our retaliatory forces in the mid-70's. It is now time for us to look to what we must do to maintain the effectiveness of our deterrent. Timing the lead time for force development are the problems. If we were to maintain our retaliatory forces without improving their survivability until an advanced Soviet threat were actually deployed,

there would be several years before we could adequately protect our forces. Our deterrent would be threatened during this period. If we are to maintain a strong deterrent, we must start to counter Soviet force improvements when we see their development. This lead time problem is sufficiently severe, 5 to 6 years to deploy a major weapon system, that we must decide to initiate deployment in anticipation of a technological advance by the enemy even before the actual development is observed. For example, the decision to provide the option to defend MINUTEMAN was made in 1967 in anticipation of multiple warheads on the SS-9 before evidence of such a development was available.

"Additions to our present strategic offensive forces could improve our own deterrent. This could promote rather than ameliorate the arms race, however. We prefer to protect our deterrent forces in some other way.

"We can provide the necessary protection as and if it is needed and avoid unnecessary escalation of the arms race if we add an effective ABM protection to our retaliatory forces to the degree necessary to insure their survival.

"Let me speak briefly now once more about Communist China. Though the Communist China threat has slipped in time, Red China is continuing its efforts in the field. We could employ deterrence alone as a protection. But with its dispersed population and its rural culture, the success of deterrence against Red China might be more questionable than in the case of the USSR. Should a Red Chinese attack occur deterrence would not protect the US against heavy casualties. The deployed Safeguard ABM system in the light area defense role could limit casualties greatly from the lighter, less sophisticated attack that Communist China could develop in the early years. We must maintain a capability, therefore, for a light ABM deployment to protect our country against the Red China threat."

It should be noted that neither the Sentinel nor the SAFEGUARD systems were designed to defend the United States population and cities from an all-out Soviet attack. Although it is very desirable to defend our cities, it is not presently feasible to do so against a massive and sophisticated threat. Moreover, a pattern of deployment that attempts to defend the cities is likely to be viewed by the Soviet Union as a threat to their deterrent and could accelerate the arms race.

The deployment of the Safeguard system will be paced to the actual emergence of future threats and on progress or failure in strategic arms limitation talks. Phase 1 includes only the first two sites in the Minuteman fields—Grand Forks Air Force Base in North Dakota, and Malmstrom Air Force Base in Montana. Selection and acquisition of sites for future deployment will also be made and a strong research and development effort will be continued. This phase will also permit operational testing of the system. Phase 2 includes a number of options. The option actually selected will depend upon how the threats to United States security evolve.

The deployment of Phase 1 would involve a DoD investment cost of \$2.1 billion, excluding R&D and AEC costs which have to be incurred, for the most part, even if we postpone deployment for another year. This represents an average annual expenditure of about \$400 million over the next 5 years. In view of the great stakes involved, this is a very modest insurance premium, roughly one-half of 1 percent of the total Defense budget, and considerably less than one-twentieth of 1 percent of our current gross national product. Notwithstanding the severe budget stringencies under which the Government will have to operate in the next fiscal year, President Nixon found it necessary to recommend this program to the Congress.

ANTIBOMBER DEFENSE

Congressional Quarterly: "Bomber Defense System. Another big item CQ's sources view as unnecessary is the complex warning and intercept system designed for defense against long-range bomber attack. Called SAGE for Semi-automatic Ground Environment, . . ."

DoD Position: The Defense Department agrees that parts of our present antibomber defense system are now, or soon will be, obsolete and uneconomical to retain. Former Secretary of Defense, Robert S. McNamara, recognized this in his testimony before the Senate Armed Services Committee in support of the Fiscal Year 1966 Defense Budget, when he said:

"One of the major issues we face in the Strategic Defensive Forces is to determine the proper overall level of the anti-bomber defense program. Our present system for defense against manned bomber attack was designed a decade ago when it was estimated that the Soviets would build a force capable of attacking the United States with many hundreds of long range aircraft. This threat did not develop as estimated. Instead, the major threat confronting the United States consists of the Soviet ICBM and submarine launched ballistic missile forces. With no defense against the ICBM and only very limited defenses against the submarine launched ballistic missiles, our anti-bomber defenses could operate on only a small fraction of the Soviet offensive forces in a determined attack. Moreover the anti-bomber defense system itself is vulnerable to missile attack. It is clear, therefore, as it has been for some years, that a *balanced* strategic defense posture required a major reorientation of our efforts—both within anti-bomber defense and between anti-bomber and anti-missile defenses."

It does not follow, however, that because the present system has some shortcomings it should be phased out immediately. The obsolete or marginally effective parts of the system should be phased out as soon as there are proved, more effective replacements available or when there is no longer a requirement for their capabilities. Following the latter course, we have been phasing down the SAGE system as new systems are developed.

In addition, we are making a comprehensive examination of the entire air defense problem. As Secretary McNamara said in his statement for the Senate Armed Services Committee in support of the Fiscal Year 1969 Defense Budget:

"There are six possible purposes that our air defense system might serve in the 1970s:

"1. Peacetime identification to prohibit free access over North America from the air. This purpose requires only a thin area-type defense plus a high quality surveillance capability.

"2. Nth country defense to prevent damage from an attack by such countries as Cuba, Red China, etc. This purpose would require a relatively thin but leak-proof area-type defense and a good surveillance capability.

"3. Discouraging the Soviet Union from developing and introducing new bomber threats which would be costly to neutralize. This purpose would require that we have the capability to deploy within a reasonable period of time an upgraded air defense capable of countering both quantitative and qualitative improvements in the Soviet strategic bomber force, and that the Soviets be aware of our capability. Thus, this purpose places requirements on our research and development program but does not, in itself, demand the actual deployment of modernized air defenses at the present time.

"4. Limiting damage to our urban/industrial complex from a Soviet manned bomber attack in the event deterrence fails. The contribution which air defense can make to achieving this objection is highly dependent on the overall effectiveness of our ABM capability. Air defense can make a major contribution in saving lives only if the U.S. deploys a strong missile defense and the Soviets do not respond effectively.

"5. Precluding an attack on our withheld strategic missile forces. This purpose requires a capability to prevent bombers from making aerial attacks on a large number of missile targets with multiple gravity bombs. The current air defense system has already forced the Soviets to change their aircraft payloads to the extent that their bomber threat to our MINUTE-MAN force has been reduced to minor proportions.

"6. Providing a complete mobile 'air defense package' which would include a transportable control system and a refuelable or long-range interceptor, preferably one which is capable of close combat under visual identification rules."

For purposes of analysis, we have examined a number of alternative forces, three of which are discussed below. These three pretty well cover the range of choices available to us. The first alternative would be to continue the current air defense forces at least through the mid-1970s. The second would be to modernize the forces with a new Airborne Warning and Control System (AWACS) for warning and control and the F-12 for interception. The third alternative lies

midway between the other two, and would provide for AWACS and the upgrading of the F-106 with an enhanced fire control system (including a "look-down" capability to engage low-altitude targets) and a new air-to-air missile.

Under Alternatives 2 and 3 the entire SAGE/BUIC ground environment would be phased out, leaving only the FAA operated radars for peacetime air surveillance. However, some Over-the-Horizon (OTH) "back-scatter" radars would be added to provide an *aircraft* early warning capability.

We have tested the three alternative forces against both the expected Soviet bomber threat and a number of different greater-than-expected threats which the Soviets could mount in the mid-1970's. The results fully corroborated the basic conclusion we have drawn from all our air defense studies conducted to date, namely, that AWACS is of the first order of importance, the fire control/missile system is second and the interceptor aircraft's performance is third.

The F-12 would be superior in discouraging such future threats as very long range air-to-surface missiles and supersonic bombers, whereas the F-106X would be superior in discouraging Short Range Attack Missiles (SRAMs), decoys and self-defense missiles. The F-106X would be best in the mobile air defense role. No air defense system can provide significant "Damage Limiting" capabilities against the U.S.S.R. unless accompanied by a strong, effective Anti-Ballistic Missile (ABM), a capability which is presently unattainable. Our analysis also showed that alternatives 2 and 3 provide a good capability against Nth countries. On balance, the AWACS/F-106X force seems to be the proper choice at this time.

We are phasing down the SAGE system as the development of these two systems progresses. We are phasing down the least useful parts of the system first, while retaining the most useful parts until the F-106X/AWACS force is ready. In the past seven years, as the Russian strategic forces have become more predominantly missiles than bombers, we have phased out parts of the SAGE system, including about 30 radar ships and 70 land based radars. These cuts have not significantly degraded the system and yet have saved about \$100 million per year.

Congressional Quarterly: "Sources said it was widely accepted in the Pentagon that the Soviet Union no longer could muster an appreciable bomber threat."

DoD Position: This is not in consonance with agreed national intelligence estimates. That is to say that those whose business and profession it is to evaluate and comment upon the threat do not wisely accept such a statement.

Congressional Quarterly: "A higher degree of effectiveness can be attained . . . by phasing out the SAGE system and relying solely on Federal Aviation Administration (FAA) surveillance capabilities and normal U.S.-based fighter squadrons, combat training squadrons and the Air National Guard. One source said this would be a system 'based on weapons and detection equipment that maximizes kills, not automation.'"

DoD Position: We do intend to use FAA surveillance radars to the maximum practical extent. However, of themselves, FAA surveillance radars are not fully tied into any battle management system, they are totally inadequate in interceptor control capability, and they are not equipped with hardware that will permit operation in a combat degraded environment.

The Air National Guard is now a valuable part of our defensive force so the remainder of the CQ statement amounts to suggesting that U.S.-based fighter squadrons and combat training squadrons can replace our current active Air Force interceptor squadrons. While the fighter and combat training aircraft could augment our interceptor forces, they are not interceptors. Furthermore, to be effective in continental defense, interceptor armament systems, crew training and proper geographical positioning are important. These forces are deficient in these areas, and it is therefore difficult to see how using these forces in place of our interceptors would result in increased effectiveness.

Congressional Quarterly: "The source noted that the Air Force was about to embark on another costly modification program but predicted it would be no better than previous efforts. Designated AWACS for Airborne Warning and Control System. . . ."

DoD Position: The AWACS is not a "costly modification" of the present system but, to a large extent, is a replacement of that system offering greater effectiveness at lower ten year costs. In combination with the other components of the

modernized defense system (the modernized F-106 and over-the-horizon radars) the use of AWACS would reduce Soviet heavy bomber survivability by more than two-thirds.

Congressional Quarterly: "CQ's sources said that AWACS radars would be just as unreliable and vulnerable to countermeasures as are those in the current SAGE system."

DoD Position: The current SAGE system is not unreliable nor is it particularly vulnerable to countermeasures. The major weaknesses of the SAGE system are its vulnerability to missile attack, its lack of effective low altitude radar coverage and its limited range. These are the items, as Mr. McNamara said, which AWACS is intended to correct. It will be a survivable surveillance and control system capable of detecting and tracking bomber targets at all altitudes far from the continental U.S. Using current reliable microminiaturization technology and improved radar techniques, it will be a highly reliable system with effective electronic counter-countermeasures.

SURFACE-TO-AIR MISSILES

Congressional Quarterly: "Surface-to-Air Missiles. CQ's sources said \$850 million per year could be saved by phasing out 'ineffective' air defense missiles and deferring heavy hardware development on new missiles. Sources said there was little reason to believe these missiles would work any better in combat than Soviet missiles used by the North Vietnamese, stated in the May 6 issue of *Aviation Week* to have attained a kill ratio of less than 1 percent. According to one military source, 'the North Vietnamese have apparently learned much more quickly than we have that their real defense against bombing rests on antiaircraft guns.' The source said the current and planned antiaircraft gun units would be 'more than enough' for good air defense."

DoD Position: Because of the poor performance of the surface-to-air missiles used by the North Vietnamese, the United States has conducted special tests and simulations on NIKE HERCULES. These included displacements prior to firing as well as simulations in an electronic warfare environment. These special tests verified previous results with no major problems encountered. Experience gained through air defense exercises, unannounced operational readiness evaluations and actual annual service practices indicate that the kill ratio of present Army surface-to-air missile systems, NIKE HERCULES and HAWK, would far exceed the kill ratio indicated in the above CQ comment. Our policy is for a balanced air defense system including both missiles and guns. This is considered necessary to engage the complete threat spectrum. Failure to make provisions to defend all feasible attack profiles would give the enemy the cheap option of exploiting the undefended altitude zones. The engagement capability and effectiveness of antiaircraft guns, for example, decrease rapidly at higher altitudes.

For systems such as BOMARC, it is inappropriate to compare either the combat environment or the missile capabilities. The general environment in North Vietnam consists almost entirely of point defense against highly maneuverable fighter aircraft flying at medium and low altitudes. The BOMARC environment, on the other hand, involves a much greater area defense against high as well as medium flying bombers that are unable to engage in violent maneuvers.

An on-going Combat Evaluation Launch (CEL) Program carried out by the Aerospace Defense Command (ADC) has proved the BOMARC missile to be extremely effective against the expected bomber threat. In its intended environment, the BOMARC continues to demonstrate kill capabilities far in excess of the SAM kill ratios reported in NVN. Further, a number of these CEL launches have demonstrated the effectiveness of the BOMARC against stand-off air-to-surface/submarine launch cruise type missiles.

MANPOWER

Congressional Quarterly: "Manpower. Sources indicated that sums totaling a minimum of \$4.2 billion could be saved by paring 'fat' from logistical elements of all the Services."

DoD Position: Manpower requirements of the Services are thoroughly and continuously reviewed by the Congress, the Bureau of the Budget, and all levels

of the Department of Defense to insure that no "fat" exists. In the review process, as in the *Congressional Quarterly* article, much attention has been devoted to the distribution of personnel between "combat" and "support" units. For analysis of personnel requirements, however, we do not believe that this emphasis is well placed. It has not proven very useful to analyze personnel requirements in terms of combat and support. Definitions are imprecise, and it is hard to make comparisons between Services or within a Service between one time period and another. Some Army personnel now in Divisions were not part of the Division in Korea, and vice-versa.

In addition, identifying personnel as "support" does not help in determining the need for the men. For instance, an F-105 tactical fighter wing has about 125 pilots out of 2000 men, or about 6% "combat" personnel. An F-4 wing has twice as many pilots in roughly the same personnel. This hardly means that the F-4 wing is twice as efficient or that either wing is overmanned.

As technological complexity increases, we would expect to see increases in support requirements. In some areas support may have increased too fast, but that has to be determined on the basis of detailed analysis. Further, the degree of support required varies with the geography and state of logistics facilities of the area in which we may fight. We were previously oriented for war in Europe and Korea, areas which require relatively low support ratio. In Vietnam, on the other hand, the most critical needs have been for support units—engineers, truck companies, port personnel, maintenance personnel, and logistics boat companies—that were needed because of the primitive port and logistics facilities and the lack of a unified logistics support system that normally accompanies a traditional battlefield with specified front lines.

Congressional Quarterly: "Army . . . 110,000 are transients. . . . Sources agreed that the Army should not be allowed to carry the large transient category but, . . . should have to 'take it out of their hide just like a corporation would.'"

"Navy . . . 50,000 transients . . . A reduction . . . including, . . . the elimination of the transient category."

DoD Position: The number of military personnel in a transient status at any given time is a function of many factors such as the size of the force, the length of terms of service, the tour length policies, the number of personnel moving to and from oversea locations, and the number moving between stations in the United States. In the Army, for example, the larger force and the greater number of people in short tour areas such as Vietnam (i.e. one year) are causing increased permanent change of station moves: the former because more people are in the Army to move; the latter because people are moving more often. A comparison of Army and civilian corporation procedures regarding accounting for transient personnel is inappropriate because:

1. In the Army a much higher percentage of the personnel are assigned to short tour (one year) areas. During fiscal year 1969, the Army will send to and return from short tour areas 450,000 individuals, about 33% of its trained strength.

2. Turnover of personnel is much higher in the Army than in the average corporation. Approximately 476,000 new men will be taken into the Army during Fiscal Year 1969 and about 550,000 individuals will be separated.

If the Army were required to take "its transients out of its hide," while maintaining programmed strength in Southeast Asia and Korea, operating strengths of units in Strategic Army Force, in Europe and in other long tour areas would be so low that the required unit training could not be accomplished and combat readiness of these forces would be seriously degraded.

TACTICAL AIRCRAFT

Congressional Quarterly: "Tactical Aircraft. Aviation experts interviewed by *Congressional Quarterly* said cuts totaling \$1.8 billion could be made in the next fiscal year's aircraft procurement programs, primarily by dropping 'elaborate and impractical' electronics systems and buying more austere versions of the craft."

DoD Position: The Defense Department agrees that adjustments can be made to the Fiscal Year 1969 aircraft procurement program, but not for the reasons:

cited in the *Congressional Quarterly* article. We systematically review our tactical aircraft program and make adjustments, when required, to reflect changes key factors such as attrition experience in Southeast Asia, development and production experience, and changes in preference among different weapons systems. Moreover, to comply with the Revenue and Expenditure Control Act of 1968, we are striving to identify modernization items in the aircraft procurement program which can be deferred safely. Although our current review is not complete, we anticipate making large adjustments to the program. The largest single program reduction has already been made—the cancellation of the F-111B program in favor of the VFX-1.

Congressional Quarterly: "Cuts of at least \$700 million could be made in the Air Force program . . . by purchasing simpler versions of the \$2.5 million F-4E, the \$8 million F-111D, and dropping production of the \$2.6 million A-7D in favor of the A-37 which cost only \$350,000. . . . the F-4 had failed to provide clear superiority over Soviet fighters. . . . \$30 million could be saved by dropping the F-4E's 'long list of combat-inessential' equipment such as sophisticated navigation and fire control systems . . . which would be 'highly unreliable, contribute little or nothing to combat effectiveness, and decrease aircraft performance and daily utilization rates.'"

DoD Position: The F-4 has compiled an enviable air-to-air combat record in Southeast Asia. These aircraft have achieved a 5 to 1 kill ratio over the Soviet supplied North Vietnamese MIGs. They have done this exclusively over the heavily defended enemy heartlands where the MIGs have all the advantages of radar control and surprise, and can thus engage or withdraw at will. To draw an analogy: the F-4 has achieved this record in a fight where the opponent is given the first blow and is allowed to quit whenever he wants.

The avionics installed in the F-4 series of aircraft are the product of extensive research and development efforts, and they are installed to meet the needs of field commanders, the combat users of the airplane. The avionics installed in the F-4E are essentially an improved and more reliable version of those installed in its predecessor, the F-4D. They include, in addition to such standard items as a radio and TACAN, an inertial navigation system and an integrated radar fire control system. All of these items, and especially the latter two, are absolutely essential to enable the F-4E to carry out its assigned all-weather attack role with the precision and accuracy necessary in the modern environment. These avionics have been in use for over 18 months, and they have proven highly reliable. F-4Ds and F-4Es have flown in the United States and in Southeast Asia at daily sortie rates equal to or better than planned.

Congressional Quarterly: ". . . the F-111 was too vulnerable to enemy fighters and anti-aircraft defenses to be useful . . . that great scrutiny should be placed on the F-111A program which has encountered extensive problems in recent combat tests in Vietnam."

DoD Position: Concerning vulnerability of the F-111 aircraft and also its problems in Southeast Asia, there is no evidence to substantiate any losses of F-111s to enemy action. Further, to date no aircraft have returned with battle damage. One of the three losses in Southeast Asia has been attributed directly to a foreign object being left in the aircraft causing interference with the flight controls. Problems that have been encountered in Southeast Asia are being resolved by fixes that have been developed and incorporated. The F-111's low altitude penetration capability and speed make it a formidable attack aircraft in the enemy environment.

Congressional Quarterly: ". . . money could be saved by dropping . . . the Mark II electronics system in the F-111D (thus leaving the plane in effect an F-111A). . . . the sophisticated electronics gear . . . would be 'highly unreliable, contribute little or nothing to combat effectiveness, and decrease aircraft performance and daily utilization rates.'"

DoD Position: The Mark II avionics planned for incorporation in the F-111D will have an improved radar and navigation system that should provide a four-fold improvement in navigation accuracy over the F-111A, plus a better night and all-weather air-to-ground weapon delivery accuracy and an all-weather,

radar-guided, air-to-air missile capability. The reliability should be equivalent to that of the F-111A. Thus, it should not decrease the daily utilization rate while providing a greater performance capability for combat effectiveness.

Congressional Quarterly: "The A-7 was 'neither accurate nor maneuverable enough to be effective in its assigned role of close air support.' . . . A-37 could serve effectively in the close support role until a new generation of attack aircraft more appropriately tailored to the mission could be built."

DoD Position: The assertion made in regard to accuracy and maneuverability apparently applies to the only model now operational, the Navy A-7A. This version has proven highly accurate and maneuverable in its initial employment in Southeast Asia. The Air Force version, the A-7D, will incorporate a more powerful engine and improve avionics which will provide a further increase in capability. Thus, the A-7D promises to be an outstanding close air support aircraft.

It is clear that a shift in production from the A-7D to the A-37 on a one for one basis would reduce the effectiveness of the total tactical force. There are serious issues involved in trading A-37s for A-7 aircraft in the programmed force. The A-37 carries less than half the payload of the A-7 and has less than half the range of the A-7. United States commitments to NATO and the higher intensity conflicts postulated, particularly in the European scenarios, require careful consideration of the degree to which our fighter/attack force can afford specialized aircraft of limited capability.

Congressional Quarterly: ". . . the VFX-1 [is] a 'warmed-over version' of the F-111B which will cost substantially more and perform only slightly better than the plane it would replace."

DoD Position: The VFX-1 is not a "warmed-over" version of the F-111B. The VFX will be much smaller and many thousands of pounds lighter than the F-111B. It will be a high performance fighter airplane which can perform traditional fighter missions in addition to the fleet interceptor mission.

ARMY HELICOPTER PROGRAM

Congressional Quarterly: "Area of increasing 'fat' . . . the Army's helicopter program and particularly the Hueys and Chinooks that are prevalent in Vietnam . . . the . . . request for helicopter in Fiscal Year 1969 . . . should be scaled back to attrition levels."

DoD Position: The Defense Department believes that the application of helicopters in the conduct of counterinsurgency operations in Vietnam has been an unqualified success. Hueys and Chinooks are prevalent in Vietnam, but they are performing a service which cannot be accomplished by any other vehicle. They are not provided for the convenience of personnel; rather, they are essential to the mobility of tactical forces. Helicopters by their unique flight capability can insert combat forces in areas inaccessible by other vehicles. Further, the speed, freedom from ambush (except in landing zones), and flexibility of employment which characterize operations of forces using helicopters provides the mobility advantage essential to engaging and defeating an often fleeting enemy.

It is true that all of the helicopters in our helicopter force in Vietnam, which is sized and deployed on the basis of tactical lift requirements, are not always engaged in combat support missions. When not required for combat support missions, some helicopters are undoubtedly used for "convenience" missions which contribute to the morale of our troops.

To meet the urgent requirements for helicopter forces in Vietnam, we have deferred the modernization of and drawn down such forces elsewhere in the world. Our modernization plans have been complicated by two factors. First, helicopter losses in Vietnam have been higher than our earlier experience predicted. Second, our planning assumptions regarding the number of helicopters not available for combat (in repair, awaiting disposition, in transit, etc.) have proven to be low. Limiting our Fiscal Year 1969 helicopter procurement to Southeast Asia attrition levels, as suggested by *Congressional Quarterly*, would require a significant reduction in the combat capabilities of our forces elsewhere which, in our opinion, would be unacceptable for our Nation's defense.

The President's Budget Fiscal Year 1969 helicopter procurement program will contribute to the planned inventory build-up which began in 1961. It will not result in a post-war helicopter surplus.

Congressional Quarterly: "One Pentagon source said the limitations of helicopters had influenced us heavily toward short one or several-day operations to the extent that the Army in Vietnam has largely abandoned the mission of holding and patrolling territory."

DoD Positions: The Army in Vietnam has rarely conducted major operations for only one or two days duration. Some operations extend to a period of six months. The majority of Army operations extend for periods in excess of two weeks.

The helicopter is a highly effective means of transportation and, in the case of armed helicopters, a highly mobile aerial gun platform. The commander allocates these helicopters as he does any other weapon or machine in support of operations based on the tactical plan and his professional judgment. Limitations of helicopters has no influence on duration of major tactical operations in Vietnam.

The Army does not attempt to seize and hold enemy territory in Vietnam. This is not a limitation imposed by the helicopter but is part of the planning strategy for Vietnam which advocates targeting on the enemy and not on holding terrain. Our defense of key cities and military bases is greatly enhanced by the presence of helicopters. Armed helicopters have been a decisive factor in the defense of several South Vietnamese cities as recently as the enemy's Tet offensive in early 1968.

The vast majority of patrolling in Vietnam is accomplished from the air. Observation helicopters have proven invaluable in locating enemy troop concentrations and in guiding troop carrying helicopters into the target area. Helicopters are used extensively in conjunction with ground patrolling to act as the "eyes" of the patrol leader, thereby allowing more effective patrolling over a more extensive area.

Congressional Quarterly: "Sources also recommended dropping the new Cheyenne helicopter—an advanced craft based on a complex missile/gun fire control system, which they say is now slipping badly . . . one former Pentagon official said the Cheyenne which costs \$3.1 million . . ."

DoD Position: The Cheyenne, as a replacement for the H-1 armed helicopters, will escort troop-carrying helicopters, provide suppressive fires in assault landing zones, direct fire close to friendly troops, and destroy tanks and other hard targets. The Army will phase in the Cheyenne by replacing existing units of similar or related functions. Because the Cheyenne is expected to perform the fire support mission more efficiently than the systems it replaces, a substantial net reduction in the force structure has been programmed to accompany the operational phase-in of the Cheyenne.

There were two contracts with Lockheed Aircraft Corporation for the Cheyenne helicopter. One was a research and development contract calling for the production of ten prototype aircraft and certain testing and other activities. The second was a production contract for 375 aircraft. The total production program, which was to be funded incrementally over several years, was estimated at \$875 million, of which about two-thirds was with Lockheed. The program unit cost for the Cheyenne is \$2.3 million. (These figures were estimates and were subject to negotiations with Lockheed which were not completed.)

An April 28, 1969, Lockheed responded to a cure notice from the Army contracting officer that the corporation would not be able to deliver specification aircraft on the contract schedule. Lockheed proposed additional development effort and a slip in the production schedule. After a careful evaluation, the Secretary of the Army approved termination, and a notice of termination for default was issued on May 19, 1969.

The decision to terminate the production contract was based on the conclusions that (1) the contract was in default; (2) there was little confidence that Lockheed could produce specification aircraft even on its proposed slipped schedule; and (3) it would be imprudent for the Army to invest large sums of money in the production program without more substantial assurance that satisfactory aircraft would be delivered.

It appears that the development contract may also be in default, and a cure notice may accordingly be issued. However, the Army is hopeful that an arrangement may be made whereby a development program may be continued. In this manner, the Army will be able to explore further the advanced armed helicopter concept, which has great promise for significant contributions to the battle field capabilities of the Army.

ANTISUBMARINE WARFARE FORCES

Congressional Quarterly: "Antisubmarine Forces. Another area where a consensus of CQ's sources would make substantial cuts is in the Navy's antisubmarine warfare (ASW) force. Sources said they would eliminate the entire fleet of eight ASW aircraft carriers."

DoD Position: The Defense Department believes that retention of the anti-submarine warfare carrier forces in the 1970s is warranted. The composition of this force, however, will be adjusted to reflect new weapons systems capabilities and changes in the threat.

In 1961, the United States had 9 ASW aircraft carriers (CVSs). Today we have 8, which cost about \$1.1 billion a year to operate (including the CVS, aircraft, escorts and other support ships). The number we will need in the future is constantly under review because of the rapidly increasing effectiveness and cost advantage of land-based ASW aircraft. In the past seven years we have more than doubled the search capability of our ASW search aircraft and we expect an even larger relative increase in the next nine years. Also, in the past seven years we have more than doubled the submarine killing capability of our attack submarines, and we expect an only slightly smaller relative increase in the next seven years. With these increases, we naturally will analyze the effects of decreasing less productive high cost forces, such as the ASW aircraft carriers.

Some of these force phasedown decisions have already been made. In Secretary McNamara's statement on the fiscal year 1969 Defense budget, for example, he said:

"In light of the decision to go ahead with the VSX [new seabased ASW aircraft] and in view of the vast improvement in its performance vs current ASW carrier-based aircraft, we now plan to reduce the CVS force to five carriers and four air groups when the Vietnam conflict is concluded."

Nevertheless, we do not see the day when all ASW carriers will be retired. We still have areas of the world which cannot be covered by land-based patrol aircraft because of the political lack of suitable air bases. Further, overseas air bases can be attacked by potential enemies or denied us by changing international agreements. Though unlikely, lack of bases could reduce the effectiveness of an ASW campaign if we did not have any ASW carriers.

As the Secretary of Defense pointed out last January, "the advantages and flexibility inherent in such a force would marginally warrant its continuation in the 1970s—provided that its effectiveness could be greatly improved." The VSX anti-submarine aircraft development is designed to provide that increase.

ATTACK CARRIER FORCES

Congressional Quarterly: "Attack Carrier Forces. Another large sum of money could be saved, CQ's sources said by changing the concept of deployment of attack carrier forces."

DoD Position: The number of attack carriers (CVAs) required is based on the total level of tactical air forces required to support national strategy. The optimum mix of sea-based/land-based tactical air is the subject of continuing classified studies. The results of these studies and operational experience in both Korea and Southeast Asia show a requirement for 15 CVAs.

Congressional Quarterly: "... illustration of 'irrationality' in carrier deployment was the current stationing of three carriers in the waters off North Vietnam . . . 'We have to keep two carriers in support of every one on line—a total of nine attack carriers tied up in the war. We could phase out six of those carriers by pulling only two out of Vietnam, leaving one there for the purpose of keeping Naval air current in combat experience. Then, at far less cost, we

could achieve the same aircraft strength by redeploying land-based aircraft from areas throughout the Pacific.’”

DoD Position: The Defense Department believes that the *Congressional Quarterly* contention above is wrong on two counts: (1) we cannot reduce our CVA force by removing CVAs from Vietnam just as we did not increase that force when we sent CVAs to Vietnam; and (2) no money would be saved because the marginal costs—the money yet to be spent—of replacing CVAs in Vietnam with land-based air are higher than the costs of continuing to operate the CVAs we have already bought.

The number of tactical aircraft we need is determined by our world-wide commitments and requirements. We satisfy these requirements with a mix of land-based and sea-based aircraft. The proportion of the force that is sea-based is determined by our need for mobile air bases. The CVA can bring attack, reconnaissance, and air defense capabilities quickly to bear in areas where we do not have political or physical access to land bases or where the land bases are inadequate. Events of the past ten years have repeatedly shown the value of having mobile air bases deployed around the world with full stocks of aircraft, munitions, supplies, and trained crews.

However, sea-based air is more expensive than land-based air where the two can equally well perform the missions required. The exact cost differential is debatable and subject to a host of assumptions. But we believe both operating and investment costs are considerably higher, particularly in view of the \$541 million cost of a new nuclear-powered CVA and the \$570 million cost of 4 nuclear escort ships. Thus we do not want to buy more sea-based air than is required by its advantages.

Having bought the CVAs, aircraft, and supporting ships and shore facilities, the additional costs of operating them are far less than the cost of building new land bases, protecting them, supplying them with new aircraft, trained men, etc. Thus, we see no cost effectiveness grounds to phase CVAs out of the war in Vietnam unless there were a reduction in the total demand for tactical air to support the war.

AMPHIBIOUS FORCES

Congressional Quarterly: “Amphibious Forces. Because of the lack of real or potential island powers, officials interviewed by CQ think substantial cuts should be made in the number of amphibious assault vessels. . . . Of a total amphibious force of 142 ships, CQ’s sources recommended mothballing 50 of the most obsolete, without making any change in the composition of Marine combat forces. Savings would be worth about \$100 million the cuts envisioned in amphibious force strength would leave the capability of simultaneously assaulting with one division team in the Pacific and one brigade in the Atlantic.”

DoD Position: Amphibious assault ships provide a unique capability of projecting land forces over the beaches without the need for overseas port and airfield facilities. Amphibious assault forces can be decisive in shifting the local military balance, and can provide defended beachheads where following-on forces can be landed by airlift or sealift.

The number of amphibious assault ships is determined by the size of the forces that must be transported, delivered and supported in an amphibious assault operation. These forces are essential to meet national strategic commitments and the amphibious assault ships to lift them must be available. The size of this force is not related to the number of real or potential island powers. As Secretary McNamara said in his statement on the Fiscal Year 1969 Defense Budget, the amphibious assault mission “has received greatly increased emphasis in recent years. Our strategic analysis shows:

“1. That we should have enough assault ships to lift and land the assault echelons of one Marine Expeditionary Force (division/wing team) in the Atlantic and one in the Pacific.

“2. That the speed of these ships is quite important for Pacific forces and less so for the Atlantic.

“In 1961, we only had 104 assault ships—enough to lift and land about 70 percent of a Marine Expeditionary Force in each ocean. Most of these were built in World War II and had speeds of about 13 knots. Only three of them had the

helicopter capability needed to support the Marines' new vertical envelopment assault tactic. Between 1962 and 1967 we allocated \$1.7 billion for the construction of 49 new assault ships. The following table shows the past and planned growth in assault lift.

	End fiscal year	
	1961	1968
Total assault ships.....	104	142
Modern, fast assault ships.....	13	31
Index of total lift (1961 equals 100).....	100	130
Index of fast lift (1961 equals 100).....	100	290

"By the mid-1970s the entire Pacific amphibious assault force and one-half the Atlantic force will be made up of modern 20-knot ships. The introduction of the new-design amphibious assault ship, the LHA (now in contract definition), will provide wider assault flexibility—accomplishing in a single ship what it now takes several to do."

As new capabilities are introduced or requirements change, we will re-examine these forces with a view to phase out the older ships which would be no longer marginally effective.

FAST DEPLOYMENT LOGISTIC SHIP

Congressional Quarterly: "Sources said they also would drop a new procurement request for fast deployment logistic ships (FDLs)—a mammoth military warehouse designed for deployment off potential trouble spots for possible fast deployment of heavy combat equipment."

DoD Position: There is an increasing requirement for strategic mobility. Present United States national strategy in support of international treaties and agreements is based upon a rapid deployment strategy. In many situations the most critical element of United States national response is the rapidity with which military force can be projected to distant parts of the world. Rapid deployment of an appropriate force may prevent the escalation of a contingency into a situation which would require an increased United States response later under much less favorable and more costly conditions.

Careful studies have revealed that the FDL is a key element for providing the means by which rapid deployment of forces can be accomplished most effectively. The combination of forward deployed forces, pre-positioning, airlift, and sea-lift represents the best method of effectively meeting these requirements.

The FDL will provide an essential military capability. The following characteristics are indicative of the FDL ship's unique design:

A 25-knot speed for distances of over 8,000 miles without refueling.

Large controlled humidity stowage spaces capable of in-place activation and fueling/defueling of vehicles.

Capability for conducting non-assault, off-loading operations through unimproved ports or over beaches where secure or adequate port facilities do not exist.

Roll-on/roll-off capability via stern ramp and side ports.

Handling and discharge of equipment by organic amphibious vehicles, landing craft, and helicopters.

The weapons, equipment, and supplies transported by FDL ships will be "married up" in the objective area with military personnel lifted by air. No current or proposed commercial ship has the unique military capabilities offered by the FDL ship. The rapid deployment concept, including the use of FDL ships, is supported by the Secretary of Defense, the Joint Chiefs of Staff, and the Services, and is essential to the successful implementation of our strategic mobilization plans for the mid-range period.

MANNED ORBITING LABORATORY

Congressional Quarterly: "MOL. A final area deemed ripe for cuts is the Manned Orbiting Laboratory Project (MOL)—the Air Force's probe into the military uses of space. One Defense Department official said the Air Force at this stage 'has no more idea what they will do with men floating around in space than NASA (National Aeronautics and Space Administration) does with its Apollo Application Program. This is one activity that can wait.'"

DoD Position: The Manned Orbiting Laboratory (MOL) Program has been cancelled. On June 10, 1969, in the cancellation announcement, Deputy Secretary of Defense David Packard stated:

"The primary objectives of the MOL program, initiated in 1965, were to advance the development of both manned and unmanned defense-oriented space equipment, and to ascertain the full extent of man's utility in space for defense purposes. It included numerous classified DoD experiments.

"The primary factors in the decision to cancel the MOL project included (1) the continuing urgency of reducing Federal defense spending and (2) advances in automated techniques for unmanned satellite systems.

"We fully recognize that the Fiscal Year 1970 budget proposals now before the Congress are receiving intense scrutiny and that the appropriate Committees in both Houses in Congress are searching for ways of reducing expenditures as we are also doing in the Department of Defense.

"In keeping with the spirit and intent of these reviews, the MOL cancellation will be a major step in reducing the budget. Of the \$525 million now proposed for the Fiscal Year 1970 budget authorization, several hundred million will be saved in expenditures. The remainder will be needed for termination costs and in order to pursue Air Force unmanned, space programs.

"In addition, based on recent budget estimates, the cancellation will save about \$1.5 billion in Fiscal Year 1970 through 1974.

"In order to reduce the Defense research and development budget significantly, it was necessary to cut back drastically on numerous small programs or to terminate one of the larger, most costly R&D undertakings. We have concluded that the potential value of possible future applications of the MOL were not as valuable as the aggregate of other DoD programs that would need to be curtailed to achieve equal reductions.

"Since the MOL program was initiated, the Department of Defense has accumulated much experience in unmanned satellite systems for such purposes as research, communications, navigation, meteorology. In addition, the DoD has profited from both the manned and unmanned space exploration of NASA of the many, advanced technologies in the MOL effort."

DEPARTMENT OF DEFENSE POSITION ON PROPOSED REDUCTIONS TO THE MILITARY BUDGET IN THE WASHINGTON MONTHLY ARTICLE "HOW THE PENTAGON CAN SAVE \$9,000,000,000" BY ROBERT S. BENSON (THE WASHINGTON MONTHLY, MARCH 1969)

MANNED ORBITING LABORATORY

Benson: "The MOL program is duplicative and wasteful . . . I would strike all of it."

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MANPOWER

Benson: "The Navy and Air Force have already abbreviated their basic training; for the Army to do so would yield, in direct savings alone, \$50 million."

DoD Position: Paragraph 671 of Title 10, U.S. Code, states that military personnel who will be assigned to land expeditions outside the United States or its territories and possessions will receive four months of training. The Department of Defense supports the provisions of this law. Adequate basic training is necessary to provide needed orientation to military life and a fundamental education in military subjects. Even more important, it is necessary to instill military discipline in new recruits so that they will perform reliably and effectively in all situations. In the case of the Army, many new recruits will be sent overseas either to combatant or non-combatant assignments, so the longer training period is both required and desirable. If the training period were reduced for some, the Army's flexibility to transfer men overseas to meet unexpected crises would be limited, or these men would be transferred without the proper qualifications. Moreover, due to the nature of Army assignments, a man performing a support function might be called upon to perform combatant duty without warning and should have the proper preparation for this.

Benson: "If we were to reduce by a modest one-fourth the present number of assignment changes (whereby servicemen move almost once a year), the annual savings in transportation and moving costs alone would be slightly over \$500 million, to say nothing of the improvement in work effectiveness."

DoD Position: The number of military personnel who are reassigned in a given period of time is the result of many factors such as the size of the force, the length of terms of service, the tour length policies, the number of personnel moving to and from overseas locations and the number moving between stations in the United States. At the present time, many personnel must be reassigned annually due to the greater number of people assigned in short tour areas such as Vietnam (i.e. one year) and due to the high turnover in the Army. In addition, the replacement of Vietnam personnel frequently creates vacancies in forces located elsewhere that, because of skill requirements, cannot be filled by those returning from Vietnam. Thus additional transfers are generated between non-Southeast Asia forces. It is also necessary to establish reasonable tour lengths for overseas and sea assignment and provide for orderly rotations to and from those assignments.

With respect to officer specialization, all the Services have extensive specialization achieved through the use of corps and other means. These measures have lengthened tour assignments and have improved technical capabilities, but it is still necessary to provide officers with a career path to senior assignments, at least within his own specialty. Career development programs are carefully worked out to qualify officers for greater responsibilities, with particular attention given to the proper balance of operational, support and staff assignments.

At the same time, every effort is made to maximize tour lengths and provide stability. The objective is not to train all officers to be Chief of Staff. However, a review of typical assignments given to officers in the senior grades (e.g. O-6 or above) will show that a broad perspective and background is mandatory.

Benson: "Cutting leave time to twenty days a year—with the exception of men on hardship duty overseas—would reduce the total armed forces manpower requirements enough to save \$450 million annually."

DoD Position: The thirty days military leave does include weekends, so this policy is roughly comparable to twenty-two days vacation for a civilian. Studies have shown that an officer aboard ship averages an eighty hour week, or double the amount of hours worked each week by most civilians. Personnel assigned in Vietnam work extremely long hours, seven days a week.

Even in the United States, military personnel on the average work long hours than civilian counterparts. For example, it is common for training schools to operate six days a week, Strategic Air Command crews are constantly on alert, and military men are frequently required to work extra hours to eliminate backlogs. Military posts and stations in the United States are always manned with an adequate force to operate the installation. This is done by keeping regularly assigned personnel in a duty status on a rotating basis.

Thirty days leave is very inadequate compensation indeed for military personnel who must face long hours, risks and hardships. It seems like—and it is—a very short time to the military man, whether stationed in or out of the United States, who has been separated from his family for six months or a year and must travel a long distance to see them. It is one of the benefits that, in a small way, establishes some comparability between military and civilian careers. To reduce the leave given to military personnel from thirty to twenty days would have a serious and damaging effect upon the morale of the United States armed forces, and would have an adverse and expensive impact on retention.

CONTRACTOR INEFFICIENCY

Benson: "Conservatively assuming that aerospace and shipbuilding contractors harbor an inefficiency of 15 per cent, and figuring that the average annual amount provided for research and procurement of such systems over the past three years is about \$17.9 billion, then wiping out the inefficiency would annually save the government \$2.7 billion."

DoD Position: Mr. Benson states that the costs due to inefficiency "arise because a contractor has slipshod purchasing procedures, poor scheduling of men and machines, ineffective work standards, or other managerial deficiencies." It should be recognized that it is very difficult to determine the extent of any inefficiencies in the operations of defense contractors. If the Department of Defense were to exercise close inspection and surveillance of all contractor operations and were to review all contractor decisions, the Department would have to establish organizational structures that would parallel contractor management structures both in size and scope. However, even if this were done, the problem of access to contractor operations would still remain, as well as some method of determining who is responsible for the success of a program if the Department begins to dictate daily contractor operations.

The Department does continually make management audits and, in the case of cost reimbursement contracts, does frequently inspect contractor operations and negotiate overhead rates. Nevertheless, in the aggregate, Mr. Benson's suggestion that \$2.7 billion can be saved through "independent cost sleuthing into contractors' operations" would be impractical to implement, since the Department cannot check every labor standard and very purchase made by a contractor. In order to reduce inefficiency and waste to a minimum, the Department of Defense has a three-pronged approach: (1) the development of an independent cost estimating capability, (2) the improvement of contractual instruments and (3) the close review of on-going research, development and production contracts.

The DoD independent cost estimating capability is essential to effective negotiations with a contractor that result in the lowest cost to the government. This independent estimate indicates what a given system "should cost," so that the government does not have to rely upon the costs quoted in the bids submitted

by contractors. This is particularly important in the case of systems that are manufactured by only a few contractors. Government knowledge of what the system should cost, in advance of entering into a contract, will reduce the tendency of contractors to "buy in" at an unrealistically low bid and attempt to have their prices adjusted later in the program through design changes and other means. At the same time, this government knowledge acts as pressure to keep costs within a reasonable range and eliminate inefficiency, which can be particularly important in segments of the industry where there is little competition.

The cost estimating done by the Department is based upon reports received from industry on current and past systems. The data are detailed so that the cost of individual components is known. These individual component costs are entered into a data bank, and based upon a uniform coding structure, can be summarized and analyzed in a variety of ways. Thus when a new system is proposed, its cost can be calculated using the costs, wherever possible, of the actual components to be used or the costs of similar components.

Rather than "cost sleuthing" or similar external pressures, the Department of Defense believes that the contractor should be positively motivated to eliminate inefficiencies and reduce his costs at every opportunity. This can be best done through the contract, which establishes the basic relationship between the government and the contractor. Where there is adequate competition and technological uncertainties are not too great, the firm-fixed-price contract is by far the preferred method of introducing the proper motivation. However, the maintenance of national security is to a large part dependent upon American technological superiority in weapons systems. To keep this superiority does require us to start programs and to sign contracts even though considerable technological uncertainty exists, with corresponding uncertainty necessarily surrounding the ultimate costs. In these cases, it would be unreasonable to expect contractors to enter into firm-fixed-price contracts, and it is extremely doubtful whether the government could even interest any contractor in these contracts. Thus, the Department of Defense, trying to avoid cost-plus-fixed-fee contracts whenever possible, has tried to design contracts where the risks are shared more equitably between the contractor and the government, but the contractor is still motivated to reduce his costs. Fixed-price-incentive and cost-plus-incentive-fee are examples of these types of contracts. The Department is learning from it experiences with these contracts and is continually trying to improve its approach.

In addition to the tools of independent cost estimating and the contract, the Department does maintain pressure for contractor efficiency through in-plant audits and through reviews by top management. These bring to light questionable practices and may even result in a renegotiation of the contract. It is significant to note that in order to calculate how much contractor inefficiency exists, Mr. Benson has based his figures upon the Pratt & Whitney contract for engines for the F-111. The point is that the 15 per cent reduction in the price proposed by the company was in fact the result of a study of the contractor's operations by the Department of Defense.

ATTACK AIRCRAFT CARRIERS

Benson: "Tactical aircraft carriers could be cut from 15 to 10 without risk to the country's security."

DoD Position: The number of tactical aircraft we need is determined by our world-wide commitments and requirements. We satisfy these requirements with a mix of land-based and sea-based aircraft. The proportion of the force that is sea-based is determined by our need for mobile air bases. The attack carrier can bring attack, reconnaissance, and air defense capabilities quickly to bear in areas where we do not have political or physical access to land bases or where the land bases are inadequate. Events of the past ten years have repeatedly shown the value of having mobile air bases deployed around the world with full stocks of aircraft, munitions, supplies, and trained crews.

The exact number of attack carriers required is the subject of continuing classified studies on the optimum mix of sea-based/land-based tactical aircraft. The results of these studies and operational experience in both Korea and Southeast Asia show a definite requirement for 15 attack carriers.

It should also be pointed out that Mr. Benson's statement is incorrect, since there is risk to the country's security even with 15 aircraft carriers. Forces have not been provided to meet *all* contingencies, but to meet those contingencies that are likely to occur at approximately the same time. Thus there is still some risk with 15 aircraft carriers and there would be greater risk with any number of carriers less than 15.

AMPHIBIOUS FORCES

Benson: "Without eliminating any Marine troops, we could—by restricting their amphibious training and equipment and phasing out a proportionate share of assault ships—save \$100 million annually."

DoD Position: Amphibious assault ships provide unique capability of projecting land forces over the beaches without the need for overseas port and airfield facilities. Amphibious assault forces can be decisive in shifting the local military balance, and can provide defended beachheads where following-on forces can be landed by airlift or sealift.

The number of amphibious assault ships is determined by the size of the forces that must be transported, delivered and supported in an amphibious assault operation. These forces are essential to meet national strategic commitments and the amphibious assault ships to lift them must be available. The size of this force is not related to the number of real or potential island powers. As Secretary McNamara said in his statement on the Fiscal Year 1969 Defense Budget, the amphibious assault mission "has received greatly increased emphasis in recent years. Our strategic analysis shows:

"1. That we should have enough assault ships to lift and land the assault echelons of one Marine Expeditionary Force (division/wing team) in the Atlantic and one in the Pacific.

"2. That the speed of these ships is quite important for Pacific forces and less so for the Atlantic.

"In 1961, we only had 104 assault ships—enough to lift and land about 70 percent of a Marine Expeditionary Force in each ocean. Most of these were built in World War II and had speeds of about 13 knots. Only three of them had the helicopter capability needed to support the Marines' new vertical envelopment assault tactic. Between 1962 and 1967 we allocated \$1.7 billion for the construction of 49 new assault ships. The following table shows the past and planned growth in assault lift.

	End fiscal year	
	1961	1968
Total assault ships.....	104	142
Modern, fast assault ships.....	13	31
Index of total lift (1961 equals 100).....	100	130
Index of fast lift (1961 equals 100).....	100	290

"By the mid-1970s the entire Pacific amphibious assault force and one-half the Atlantic force will be made up of modern 20-knot ships. The introduction of the new-design amphibious assault ship, the LHA (now in contract definition), will provide wider assault flexibility—accomplishing in a single ship what it now takes several to do."

As new capabilities are introduced or requirements change, we will re-examine these forces with a view to phase out the older ships which would be no longer marginally effective.

ANTISUBMARINE WARFARE FORCES

Benson: "Killing this program (VSX) and reducing overall shipping defenses to a sensible level—four anti-submarine carriers and three air group rather than the present eight carriers—would save an annual \$600 million."

DoD Position: The Defense Department believes that retention of the anti-submarine warfare carrier forces in the 1970's is warranted. The composi-

tion of this force, however, will be adjusted to reflect new weapons systems capabilities and changes in the threat.

The submarine threat is immense. The Soviet Union has five times the number of submarines with which Germany nearly won the battle of the Atlantic. Since that time, there have been tremendous improvements in submarine technology, such as snorkels, nuclear power and undersea weapons. In addition the submarine launched ballistic missile is a relatively new and growing threat.

In 1961, the United States had 9 ASW aircraft carriers (CVS's). Today we have 8, which cost about \$1.1 billion a year to operate (including the CVS, aircraft, escorts and other support ships). The number we will need in the future is constantly under review because of the rapidly increasing effectiveness and cost advantage of land-based ASW aircraft. In the past seven years we have more than doubled the search capability of our ASW search aircraft and we expect an even larger relative increase in the next nine years. Also, in the past seven years we have more than doubled the submarine killing capability of our attack submarines, and we expect an only slightly small relative increase in the next seven years. With these increases, we naturally will analyze the effects of decreasing less productive high cost forces, such as the ASW aircraft carriers.

Some of these force phasedown decisions have already been made. In Secretary McNamara's statement on the fiscal year 1969 Defense budget, for example, he said:

"In light of the decision to go ahead with the VSX [new sea-based ASW aircraft] and in view of the vast improvement in its performance vs current ASW carrier-based aircraft, we now plan to reduce the CVS force to five carriers and four air groups when the Vietnam conflict is concluded."

Nevertheless, our military strategies will continue to require ASW carriers. We still have areas of the world which cannot be covered by land-based patrol aircraft because of the political lack of suitable air bases. Further, overseas air bases can be attacked by potential enemies or denied us by changing international agreements. Lack of bases could reduce the effectiveness of an ASW campaign if we did not have any ASW carriers.

As the Secretary of Defense pointed out last January, "the advantages and flexibility inherent in such a force would marginally warrant its continuation in the 1970's—provided that its effectiveness could be greatly improved." The VSX anti-submarine aircraft development is designed to provide that increase.

NATO FORCES

Benson: "Realistically, we could cut back to a total of 125,000 troops in Europe plus 50,000 at home earmarked for NATO contingencies, and cut by one-fourth the air power assigned to the European theater."

DoD Position: Under most scenarios, the current NATO forces and the Warsaw Pact forces are roughly balanced. Therefore, the proposed reduction would give the military advantage to the Warsaw Pact countries. Although the presence of 125,000 U.S. troops in Europe would very likely mean that a Soviet attack on some part of Western Europe would involve a direct confrontation with the United States, a weakened NATO force might encourage just such an attack. This is particularly true if the Soviet Union believed that the United States would not escalate the conflict through the use of nuclear weapons. Moreover, the choices for the United States would be difficult, and would include the alternatives of witnessing the defeat of U.S. troops in Europe with the accompanying loss of a portion of Western Europe and escalation into a nuclear conflict with the Soviet Union.

The Soviet invasion of Czechoslovakia last August underscored the need for ready NATO combat forces in Europe. There is an ever present danger that a conflict could arise out of a miscalculation by the Soviet Union. A strong and combat-ready NATO constantly provides a clear indication of the resolve of the NATO nations to defend Western Europe and of their capability to do so.

In November of 1968, at the Ministerial session of the North Atlantic Council, the United States made it clear that its European allies should assume their fair share of the cost of common defense in Europe. The other NATO nations are expected to increase their forces, contribute proportionately to NATO im-

provements, and at the same time to assist the United States with the balance of payments problem that arises from the deployment of U.S. forces in Europe. If the threats to NATO security don't change, these measures should reduce U.S. costs and eventually permit some reductions in the U.S. forces in Europe without a lessening of military strength.

The United States is also taking every measure to reduce its force structure in Europe without loss of effectiveness. Actions include consolidations and relocations within NATO, reductions in administrative personnel at headquarters and personnel support activities and elimination of overlaps and duplication.

ANTIROMBER DEFENSE

Benson: "SAGE represents yesteryear's attempt to defend against the Soviet version of our Strategic Air Command . . . Some reductions have already been effected in the Air Defense Command, but conversion from a full defensive system to purely a warning system ought to save \$600 million annually."

DoD Position: The Defense Department agrees that parts of our present anti-bomber defense system are now, or soon will be, obsolete and uneconomical to retain. Former Secretary of Defense, Robert S. McNamara, recognized this in his testimony before the Senate Armed Services Committee in support of the Fiscal Year 1966 Defense Budget, when he said:

"One of the major issues we face in the Strategic Defensive Forces is to determine the proper overall level of the anti-bomber defense program. Our present system for defense against manned bomber attack was designed a decade ago when it was estimated that the Soviets would build a force capable of attacking the United States with many hundreds of long range aircraft. This threat did not develop as estimated. Instead, the major threat confronting the United States consists of the Soviet ICBM and submarine launched ballistic missile forces. With no defense against the ICBM and only very limited defenses against the submarine launched ballistic missiles, our anti-bomber defenses could operate on only a small fraction of the Soviet offensive forces in a determined attack. Moreover, the anti-bomber defense system itself is vulnerable to missile attack. It is clear, therefore, as it has been for some years, that a *balanced* strategic defense posture required a major reorientation of our efforts—both within anti-bomber defense and between anti-bomber and anti-missile defenses."

The obsolete or marginally effective parts of the system are being phased out as soon as there are proved, more effective replacements available or when there is no longer a requirement for their capabilities. Following the latter course, we have been phasing down the SAGE system as new systems are developed.

In addition, we are making a comprehensive examination of the entire air defense problem, including the balance between detection and intercept guidance. As Secretary McNamara said in his statement for the Senate Armed Services Committee in support of the Fiscal Year 1969 Defense Budget:

"There are six possible purposes that our air defense system might serve in the 1970s:

"1. Peacetime identification to prohibit free access over North America from the air. This purpose requires only a thin area-type defense plus a high quality surveillance capability.

"2. Nth country defense to prevent damage from an attack by such countries as Cuba, Red China, etc. This purpose would require a relatively thin but leak-proof area-type defense and a good surveillance capability.

"3. Discouraging the Soviet Union from developing and introducing new bomber threat which would be costly to neutralize. This purpose would require that we have the capability to deploy within a reasonable period of time an upgraded air defense capable of countering both quantitative and qualitative improvements in the Soviet strategic bomber force, and that the Soviets be aware of our capability. Thus, this purpose places requirements on our research and development program but does not, in itself, demand the actual deployment of modernized air defenses at the present time.

"4. Limiting damage to our urban/industrial complex from a Soviet manned bomber attack in the event deterrence fails. The contribution which air defense can make to achieving this objection is highly dependent on the overall effectiveness of our ABM capability. Air defense can make a major contribution in saving lives only if the U.S. deploys a strong missile defense and the Soviets do not respond effectively.

"5. Precluding an attack on our withheld strategic missile forces. This purpose requires a capability to prevent bombers from making serial attacks on a large number of missile targets with multiple gravity bombs. The current air defense system has already forced the Soviets to change their aircraft payloads to the extent that their bomber threat to our MINUTEMAN force has been reduced to minor proportions.

"6. Providing a complete mobile 'air defense package' which would include a transportable control system and a refuelable or long-range interceptor, preferably one which is capable of close combat under visual identification rules."

It should be underscored that agreed national intelligence estimates indicate that the Soviet Union is capable of presenting the United States with a formidable bomber threat.

ANTI-BALLISTIC-MISSILE DEFENSE

Benson: "By halting the Sentinel now, before it acquires irreversible momentum, we could save \$1.8 billion this year, not to mention vastly larger sums during the next decade."

DoD Position: The decision to deploy the Sentinel was made only after extensive and exhaustive deliberations at the highest levels in both the Congress and the Executive Branch. Probably no major weapons system decision of the last decade received more thoughtful consideration. The Defense Department believes that proceeding with the deployment of the SENTINEL Anti-Ballistic Missile System is important to the security of the United States. The Director of Defense Research and Engineering has prepared the following statement of the purposes of the Sentinel system, which the Secretary of Defense has approved on the recommendation of the Joint Chiefs of Staff and the Secretaries of the Army, Navy and the Air Force.

"The Sentinel missile defense system is designed to (a) prevent a successful missile attack from China through the late 1970's (with the capability to continue to deny or at least substantially reduce damage from threats in later years); (b) limit damage from an accidental launch from any source; and (c) provide the option for increased defense of our MINUTEMAN force, if necessary in the future.

"The ability to protect ourselves from unacceptable damage from a numerically large and technically advanced missile force such as that of the Soviet Union is not yet technically feasible. However the Sentinel system will complicate any attack on the United States.

"We will continue an intensive R&D program in an attempt to provide increasingly effective means to limit damage from both the advancing Chinese and the Soviet missile threats."

Benson: "By halting the Sentinel now, before it acquires irreversible momentum, we could save \$1.8 billion this year, not to mention vastly larger sums during the next decade."

DoD Position: President Nixon has reviewed the requirement for an anti-ballistic missile system and has recommended the Safeguard ABM program to Congress. The Safeguard program has reoriented and rephased the entire Sentinel program, the ABM system that the previous administration has under development. This recommendation was based on an examination of the actual and potential strategic threats which face the United States in the decade of the 1970's, and the alternative methods of meeting these threats.

The threats include:

1. The Soviet missile threat against our population and cities;
2. The Soviet missile threat against our land-based strategic offensive forces;
3. The Chinese ICBM threat against our population and cities;
4. An accidental or "demonstration" missile launch.

Although the Safeguard system cannot provide an effective defense of our cities against a massive and sophisticated Soviet attack, it can ensure the survival of the minimum required number of land-based ICBM's and bombers; it can provide a very high degree of protection for our population against the kind of attack the Chinese Communists may be capable of launching in the 1970's; and it can defend the Nation against an accidental ICBM launch or an intimidation attack. While there might be some question as to whether an ABM system would be worth its cost to place ourselves in a position to defend against any one of these potential threats, there can be no question that it will be a worthwhile investment to be able to defend ourselves against all of these threats.

Deputy Secretary of Defense David Packard summarized the need for Safeguard in the following statement before the Senate Armed Services Committee on May 13, 1969.

"To the maximum extent possible we must insure protection of our people and our resources against a nuclear attack. Naturally against the USSR the means available to us is through the maintenance of an adequate retaliatory force to accomplish deterrence. Even under conditions of a first strike by the USSR the force must be such that it can effect unacceptable damage on the USSR. Should its effectiveness be threatened in any way, countermeasures must be taken to maintain the required effectiveness. It must be crystal clear to the USSR that we do have this capability, we intend to maintain it, and we do have the intention to use it if we are attacked.

"In starting let me emphasize that I am convinced that we now have adequate forces for deterrence and that those forces should continue adequate for a few years to come no matter what action the USSR takes. Conversely, there are certain developments occurring in the USSR strategic weapon deployment which, if continued, could cause a threat to essential elements of our retaliatory forces in the mid-70's. It is now time for us to look to what we must do to maintain the effectiveness of our deterrent. Timing and lead time for force development are the problems. If we were to maintain our retaliatory forces without improving their survivability until an advanced Soviet threat were actually deployed, there would be several years before we could adequately protect our forces. Our deterrent would be threatened during this period. If we are to maintain a strong deterrent, we must start to counter Soviet force improvements when we see their development. This lead time problem is sufficiently severe, 5 to 6 years to deploy a major weapon system, that we must decide to initiate deployment in anticipation of a technological advance by the enemy even before the actual development is observed. For example, the decision to provide the option to defend MINUTEMAN was made in 1967 in anticipation of multiple warheads on the SS-9 before evidence of such a development was available.

"Additions to our present strategic offensive forces could improve our own deterrent. This could promote rather than ameliorate the arms race, however. We prefer to protect our deterrent forces in some other way.

"We can provide the necessary protection as and if it is needed and avoid unnecessary escalation of the arms race if we add an effective ABM protection to our retaliatory forces to the degree necessary to insure their survival.

"Let me speak briefly now once more about Communist China. Through the Communist China threat has slipped in time, Red China is continuing its efforts in the field. We could employ deterrence alone as a protection. But with its dispersed population and its rural culture, the success of deterrence against Red China might be more questionable than in the case of the USSR. Should a Red Chinese attack occur deterrence would not protect the US against heavy casualties. The deployed Safeguard ABM system in the light area defense role could limit casualties greatly from the lighter, less sophisticated attack that Communist China could develop in the early years. We must maintain a capability, therefore, for a light ABM deployment to protect our country against the Red China threat."

It should be noted that neither the Sentinel nor the Safeguard systems were designed to defend the United States population and cities from an all-out Soviet attack. Although it is very desirable to defend our cities, it is not presently feasible to do so against a massive and sophisticated threat. Moreover, a pattern of

deployment that attempts to defend the cities is likely to be viewed by the Soviet Union as a threat to their deterrent and could accelerate the arms race.

The deployment of the Safeguard system will be paced to the actual emergence of future threats and on progress or failure in strategic arms limitation talks. Phase I includes only the first two sites in the Minuteman fields—Grand Forks Air Force Base in North Dakota, and Malmstrom Air Force Base in Montana. Selection and acquisition of sites for future deployment will also be made and a strong research and development effort will be continued. This phase will also permit operational testing of the system. Phase 2 includes a number of options. The option actually selected will depend upon how the threats to United States security evolve.

The deployment of Phase I would involve a DoD investment cost of \$2.1 billion, excluding R&D and AEC costs which would have to be incurred, for the most part, even if we postpone deployment for another year. This represents an average annual expenditure of about \$400 million over the next 5 years. In view of the great stakes involved, this is a very modest insurance premium, roughly one-half of 1 percent of the total Defense budget, and considerably less than one-twentieth of 1 percent of our current gross national product. Notwithstanding the severe budget stringencies under which the Government will have to operate in the next fiscal year, President Nixon found it necessary to recommend this program to the Congress.

Chairman PROXMIRE. Mr. Moot, in your statement you assert that U.S. military involvement overseas accounts for the lion's share of the development and progress in NATO nations, Japan, Korea, and Taiwan.

I find this a rather extraordinary position. While clearly U.S. dollar expenditure in these nations through the military budget has had a substantial impact on these economies, can you in all seriousness argue that military involvement is the best way to accomplish the development of these nations?

If, in fact, the development of these nations is one of our primary objectives through U.S. military involvement, then it seems to me we have got our means just backward. Surely direct economic assistance would be far more potent to achieve the development of these nations than our military involvement in them.

Mr. Moor. I agree with you completely, and I attempted to put that statement in context and perspective in my statement. The point I was trying to make is not that there was any disagreement with what you have just said, but that there was necessary collateral security, military security in order to allow that to happen. The point I was trying to make was that sometimes the situation or the comparison or the priorities between economic growth, domestic or overseas, and military become blurred. One is necessary to the other, and it is hard to draw a line and say, "How much is military and how many is economic." And I hasten again to say I have no intent of overstating that point.

Chairman PROXMIRE. Congressman Moorhead?

Representative MOORHEAD. Mr. Moot, the Congressional Quarterly report, and the Benson article both recommended cuts in the attack carrier program. When Mr. Schultze was before the subcommittee and Senator Symington asked him where he should look first, he said in the carrier program. There was also testimony to the effect that back in 1921 the treaty nations agreed to a limit of 15 capital ships, which today are carriers. In the evaluation that you are going to submit for the record, will this be covered?

Mr. Moor. I could say "Yes," and I could give you the previous evaluation, I guess, unclassified version of it, Congressman. I would prefer to answer it by saying that the mix of forces is currently under review, stemming from the strategy review, and therefore I would be giving you a nonauthoritative current administration evaluation of that particular question. I would be, on the other hand, happy to provide it to the committee as soon as it becomes available in its revised form.

Representative MOORHEAD. Maybe we could have the existing one with the promise of the future one when it is available.

Mr. Moor. Very well. I will properly qualify it.

Representative MOORHEAD. Have you costed out the saving if the determination were made to remove the word "simultaneously" from the two and a half war situation?

Mr. Moor. That is one of the exercises that is now going on, Congressman. And it will be a part of the computations. In other words, the calculation of the cost will parallel the risk reevaluation.

Representative MOORHEAD. Did I understand you to say that the National Security Council was studying both the civilian and military posture?

Mr. Moor. If I said that, I said it erroneously. They may be. I do not know that they are. What I did say is that we are involved in reviewing our costs and our risk evaluation, and costs associated with the forces that meet these risks within the integration of domestic policy. So that there is overview there.

I do not know that they are involved in looking at economic priorities, defense, vis-a-vis the rest of it.

Chairman PROXMIRE. I just have one more point, Mr. Moot.

In your statement you assert that the Department of Defense "exists solely to implement the objective of national security, which is not a self-generated goal." Are you claiming here that military planners have played no role in determining the enormous size of the defense budget?

Mr. Moot. No, sir; I am not.

Chairman PROXMIRE. You say it is not self-generating?

Mr. Moot. That is right, sir. The requirement isn't self-generating for forces. The mix of forces and the general composition of forces to meet the threat, which is the requirement, is of course a military planning job subject to civilian review. So obviously military planners are deeply involved in the force configuration, and the composition of forces.

Chairman PROXMIRE. You see, what Budget Director Schultze said, he said that the military planners tend to recommend weapons systems to cover every possible contingency and threat no matter how remote, and that this, in combination with the enormous R. & D. expenditures of the Pentagon to develop new technologies, tends automatically to drive up the defense budget. And after all, if I were in their position I would do the same thing. That is your job, that is the job of the planner, that is the job, it seems to me, of a defense official. I am not even sure that it isn't your job and Secretary Laird's job to do this.

But I want to make sure that it is expressed clearly, because I think if this is their job, it is all the more our responsibility to challenge this and to reconcile it with the available funds and with the capacity of our economy to meet it, and of course also with other priorities.

Representative CONABLE. Will you yield on that a minute, Mr. Chairman?

Senator PROXMIRE. Yes.

Representative CONABLE. If we are going to quarrel with what the Defense Department does in this respect, isn't it then for us further to define the mission of the Defense Department, expecting the Defense Department will seek to meet that mission with respect to any possible contingency that can arise? And through our definition of the mission, won't we best get at this problem, assuming that the Defense Department will adjust its forces and its mix in order to accomplish this mission?

Chairman PROXMIRE. It may be that in view of the condition of my stomach, not having had anything since breakfast, and having run 5 miles since I ate, that I am more belligerent than I should be. But I didn't mean that at all. I just wanted to find out what the Defense Department did, so that we will be in a much better position to have an intelligent appraisal in response to it.

Mr. Moor. Let me put it this way, and maybe it will answer your question.

The evaluation of forces necessary to meet the threat seen by the Joint Chiefs of Staff and the National Security Council, based on the evaluation of the intelligence community, has in the last 2 years been costed out on a cost-model basis by the Joint Staff and the military departments at \$100 billion to \$102 billion each year. In answer to your question, this means that the cost to meet all contingencies with all necessary forces is considerably higher than the budget submitted to the Congress.

Chairman PROXMIRE. Along the same line, are you asserting that the interchange of Department of Defense procurement personnel with defense contractors is no influence in driving up the defense budget?

Mr. Moor. I am not expert on that.

Chairman PROXMIRE. Isn't it logical to assume that after all, an admiral, a general, who has been responsible in some cases for recommending the promotion of many of the procurement people, will go to work for Lockheed, or go to work for Boeing—and more than 200 of these top military procurement officials are working for Lockheed alone, over 2,000 for the top 100 defense contractors—that they are going to have a considerable influence on the Pentagon procurement practices and policies and discipline over contractors' expenditures?

Mr. Moor. I think Secretary Shillito is a much better man to answer that. I think my answer to you might not be responsive from your viewpoint, because my answer is simply this, that I have never had any retired officer in any defense industry try to influence me, nor have I been influenced by them.

Chairman PROXMIRE. You never worked specifically on a contract?

Mr. MOOT. That is right, I have never been in the procurement field, so I can't really be responsive to your question.

Chairman PROXMIRE. Mr. Moot, I want to thank you very, very much. You have done a fine job. And after all, I think we have a more productive hearing when there is an adversary atmosphere. And some of the questions have perhaps been a little sharp, but I think you have responded extremely well, and we are very grateful to you. You have done a fine job.

Mr. MOOT. I appreciate the chance to be here.

Chairman PROXMIRE. And we would like to submit a few other questions for the record. We will appreciate it if you would answer them.

Mr. MOOT. And I will try to be responsive on the record to the questions we have left.

(The questions sent by the subcommittee to Secretary Moot and his subsequent responses follow:)

Question 1. On page 4 of your statement you talk about a "series of backlogs and deferrals—a slowdown in training and operating tempos for our forces elsewhere, deferral of modernization and maintenance, etc."

Can you submit to the subcommittee a detailed list of these backlogs and deferrals and estimated cost of each for the years 1970 through 1975, assuming an end to the Vietnam War in 1970?

Answer 1. We do not have the information in the form requested. I believe that if we describe the way that the cutbacks in non-Southeast Asia programs have been made, and the nature and dimensions of these cutbacks, it will be clear why we cannot develop a precise and detailed listing of backlog items, or a phased plan for meeting these needs.

We can indicate the general dimensions of the problem in two ways: first, by indicating some of the specific program decisions that have been made; second, by indicating the cumulative constant-dollar impact of the reductions in key areas since 1964.

Annual program reductions

As to the first point, a specific series of reductions were directed to achieve the expenditure objectives of PL 90-364, the Revenue and Expenditure Control Act of 1968. The Government-wide objective was a \$6 billion cutback in expenditures in FY 1969, and the DoD share of the cut was \$3 billion in non-Southeast Asia expenditures. This exercise was known within the Department as Project 693.

To achieve a \$3 billion *expenditure* cut, it was necessary to reduce non-Southeast Asia *budget authority* by over \$6 billion for FY 1969.

A considerable amount of material bearing on this matter is printed in the Hearings before Subcommittees of the Committee on Appropriations, House of Representatives, 91st Congress, 1st Session, on the Second Supplemental Appropriation Bill, 1969. This material appears on pages 453-55; 461; and 495-517.

In addition, we furnished to the House Appropriations Committee an unclassified 70-page summary, showing FY 1969 adjustments for each appropriation, and a detailed listing (classified Confidential) of the Project 693 adjustments by line item as of November 30, 1968. We would be happy to furnish either of these to you if you so desire.

The cutbacks in non-Southeast Asia 1969 programs included equipment for Army units in Europe and the Canal Zone; communications and electronics equipment for all services; flying-hour programs; training exercises and tests; reserve training; ship overhauls; shipbuilding and conversion; early phaseout of ships and operating units; equipment maintenance and real property maintenance; aircraft procurement and modifications; and ground equipment.

A similar exercise was conducted for FY 1968 (called 682, and aimed at a \$2 billion expenditure cut), and reductions were effected in 1966 and 1967 as well. These cutbacks in the earlier years were not as formalized or well-documented as Project 693. The cutbacks in these earlier years were also quite severe. For example, outlays for non-Southeast Asia shipbuilding and military construction in FY 1967 and FY 1968 were just about half of the FY 1964 level, in constant dollars.

Cutbacks from fiscal year 1964 to fiscal year 1970

The overall results of the reductions in non-Southeast Asia programs are covered in Table 2 of the statement furnished your Committee. This shows that—excluding Southeast Asia and retired pay—Defense outlays have been reduced from \$49.6 billion in FY 1964 to \$41.8 billion in FY 1970, in FY 1964 dollars—a drop of \$7.8 billion in FY 1964 dollars, or \$9.4 billion in FY 1970 dollars. The succeeding paragraphs will indicate the major components of this \$9.4 billion.

For shipbuilding, FY 1964 expenditures were \$2,087.6 million; allowing 15.4% for pay and price increases, this would amount to \$2,409.1 million in FY 1970 dollars. Non-SEA outlays for FY 1970 are forecast at \$1,655.9 million, or \$753.2 million less than the FY 1964 level. This \$753.2 million is a part of the \$9.4 billion just mentioned.

Moreover, shipbuilding programs have been reduced sharply throughout these years, in large part to ease the economic impact of the war. Indeed, the 1969 program level (TOA) for shipbuilding is well under half the prewar level, in constant dollars.

Our cumulative FY 1965-70 outlays for non-SEA shipbuilding are \$4.6 billion (in FY 1970 dollars) below what they would have been had we maintained a steady FY 1964-size program throughout these years. (The SEA shipbuilding program is very small).

The result has been a great increase in average age of the fleet: from 15 years in 1964 to 17 years in 1969; 35% of the ships were over 20 years old in 1964, versus 58% in 1969.

Aircraft procurement amounted to \$6.171 billion in 1964—with a deflator of 115.4, this is \$7,121 million in FY 1970 dollars. \$5.808 billion is requested for non-SEA aircraft procurement for FY 1970, or \$1,313 million below the FY 1964 level. A portion of this reduction reflects a shift in the financing for aircraft spare parts, discussed below. The remainder (somewhat under \$1 billion) is a part of the \$9.4 billion figure mentioned earlier.

Our cumulative FY 1965-70 outlays for non-SEA aircraft procurement are far below what they would have been had we maintained a steady FY 1964 program level in constant dollars. The amount is in the neighborhood of \$10 billion, in FY 1970 dollars.

Aside from shipbuilding and aircraft, procurement outlays amounted to \$7.092 billion in FY 1964—with price increases of 15.4%, this is \$8,184 million in FY 1970 dollars, compared to \$5.633 billion now requested for FY 1970. The drop of \$2,551 million reflects in part the shift in funding for spares and secondary items, discussed below. The remainder—over \$2 billion—is a part of the overall \$9.4 billion reduction from the FY 1964 program level, covering such items as electronics and communications; vehicles of all types; weapons; munitions and ordnance; and support equipment.

Of the reductions in aircraft and other procurement (\$1,313 million and \$2,551 million, respectively) about \$750 million represents the cost of spare parts and secondary items which were financed from procurement appropriations in FY 1964 and are financed in operation and maintenance appropriations in FY 1970. Considering this factor, the real reduction for these two groups of appropriations is about \$3,114 million.

For Research, Development, Test and Evaluation (RDT & E), FY 1964 outlays were \$7,021.4 million—\$8,165.9 million in FY 1970 dollars, allowing 16.3% for pay and price increases. Our FY 1970 estimate for non-Southeast Asia is \$7,121.9 million—\$1,044 million below the FY 1964 level. This is a part of the \$9.4 billion mentioned earlier.

Once again, the cumulative FY 1965-70 deficit is much greater—about \$3.5 billion.

For operation and maintenance appropriations, FY 1964 outlays were \$11,932 million—\$14,354.2 million in FY 1970 dollars, allowing 20.3% for pay and price increases. In addition, a net of \$750 million in spare parts and other items are financed in these appropriations in FY 1970, but were financed in procurement appropriations in FY 1964, so the comparable FY 1964 level figure is \$15,104.2 million. FY 1970 non-SEA outlays are forecast at \$12,867.4 million, or \$2,236.8 million below the FY 1964 level in constant FY 1970 dollars. This is a part of the \$9.4 billion mentioned earlier.

The cumulative deficit for operation and maintenance is less significant than would be the case for investment and research, but—as noted earlier—there have been large cutbacks for equipment and real property maintenance, thereby creating a backlog.

For military construction and family housing, FY 1970 outlays are about \$220 million below the FY 1964 level (in FY 1970 dollars). Moreover, serious backlogs accumulated in these areas due to very sharp reductions in recent years—in FY 1969, and especially in FY 1967 and FY 1968.

The foregoing discussion of reductions below the FY 1964 level accounts for \$7.4 billion of the \$9.4 billion reduction. The remaining \$2 billion involves military assistance; military personnel appropriations; stock funds (which finance inventories); and civil defense. There are some backlogs and deferrals in these areas, but they are not of the same order of magnitude as for the areas detailed earlier.

In summary, appraisals of specific actions taken, and analysis of aggregates, shows clearly that non-SEA programs have been sharply cut from the FY 1964 level, and that modernization and maintenance has been deferred. We hope that the foregoing discussion makes clear why it is so difficult to measure the backlog with any precision.

For example, the shipbuilding program has been reduced far below the prewar level for each of the past several years. In FY 1970 dollars, we will have spent some \$4.6 billion less in FY 1965–70 than would have been required to maintain a steady prewar level in constant dollars, and the fleet has aged markedly. We cannot say that we would have spent \$4.6 billion more on shipbuilding if there had been no conflict in Southeast Asia. The amount might have been more or less than that. It can be said with certainty, however, that shipbuilding programs have been cut back to ease the economic impact of the war, and it can reasonably be said that we have spent billions less on shipbuilding than we otherwise would have. This is a major factor in considering shipbuilding programs for FY 1970 and beyond. However, we have developed our FY 1970 requests—and will develop those for FY 1971—considering needs, priorities, yard capacity, and other factors as they stand at the time. We cannot indicate how much of our requests arise from prior-year cutbacks and how much relate to other factors.

Question 2. Beginning on Page 25 of your statement, you mention a number of current management efforts to improve performance measurement, provide contract control systems, and improve independent cost-estimating capability. In many respects, these are similar to recommendations made by the Subcommittee in its recent report, "The Economics of Military Procurement".

The major difference is that our recommendations would result in an on-going series of reports on costs and performance of weapons systems, among other things, to Congress.

Would you comment on the recommendations in the Subcommittee report on "The Economics of Military Procurement"?

Answer 2. It is true that the acquisition process, for a variety of reasons, has caused many problems in the past. As I outlined in my statement, the new administration has taken positive steps to strengthen this process, and a number of studies are underway that should result in additional improvements.

As is emphasized in your question, a significant feature of the recommendations made by the Subcommittee in the report "The Economics of Military Procurement" is the establishment of recurring reports by the General Accounting Office to Congress. Several of the recommendations were of this nature, and I would like to make some general observations regarding this proposed arrangement.

The thrust of the recommendations is to furnish the Congress with increased visibility with respect to the cost, schedule and technical progress of weapons systems. In my opinion, additional reporting by GAO is not needed since thorough and continuing reviews are now done by the House and Senate Armed Services and Appropriations Committees. To support these reviews, considerable recurring information is furnished to the Congress on weapons systems being acquired and this reporting can be expanded or reduced depending upon the wishes of Congress.

I also believe that the responsibility for basic reporting should not be included in the duties of the Comptroller General. Under our system of government, responsibility for the execution of programs established or approved by the Congress is vested in the Executive Branch. Therefore, the basic responsibility for reporting back to the Congress on the facts of execution also should rest with the Executive Branch. The significance that would be given by Congress to the proposed Comptroller General reports is not indicated, but the assumption must be that they would be the basis for some sort of Congressional action on our program. Obviously, the proper officer to present, justify, and, if necessary, defend before Congress, changes in the Department of Defense acquisition programs is the Secretary of Defense and not the Comptroller General.

If the Congress should have some doubt about the validity of the reporting that is done by the Department of Defense, the GAO can always be requested to audit specific systems or to audit a random sample of the systems on which reports are received. This would provide Congress with the assurance that reporting was accurate and valid, give more flexibility to the GAO and keep the responsibility for reporting in the Executive Branch.

My comments on the specific recommendations are as follows :

Recommendation 1: The GAO should conduct a comprehensive study of profitability in defense contracting. The study should include historical trends of "going-in" and actual profits considered both as a percentage of costs and as a return on investment. Profitability should be determined by type of contract, category of procurement, and size of contractor. Information for the study should be collected pursuant to the statutory authority already vested in the GAO. The GAO should also devise a method to periodically update and report the results of its profits study to Congress.

Comment: I have no objection to the proposed study, but would like to point out that my office is now participating in an in-house study of a similar nature, although not as broad as the one proposed. It is possible that data and results can be shared both to reduce the study workload and to reduce the burden on those who must provide the data. This latter point is extremely important, because expanding our data collection efforts is very costly and should be kept to a minimum. In any case, additional data should be collected just for specific aspects of the study, and not on a routine recurring basis if at all possible.

Recommendation 2: Total-package and other large contracts amounting to hundreds of millions of dollars and extending over several years should be broken down into smaller, more manageable segments. It should be possible to break contracts into segments short enough in duration for periodic evaluation of accomplishment, representing parts of the total program with definable objectives, and yet large enough to include acknowledged functions such as engineering and manufacturing, and work sequences such as design phases and fabrication lots.

Comment: While not a procurement expert, I recognize there are potential problems controlling large contracts, particularly those that require performance over a period of several years. At the same time, we are constantly working to improve our techniques for measuring and controlling contractor performance, and these techniques will be particularly useful in the case of large contracts. While I agree that shorter contracts add another dimension to the control of a program, I would be reluctant to see DoD totally abandon the larger contracts. For example, in some cases it may be possible to improve competition and obtain more favorable terms from industry by using larger contracts. The Department can best protect the government's interests by having the flexibility to tailor the contract to the requirements of each individual program.

Recommendation 3: GAO should develop a weapons acquisition status report, to be made to Congress on a periodic basis, and to include the following information :

(a) Original cost estimates, underruns and overruns on work completed as of effective date of report, current estimated cost at completion, total actual cost, including underruns or overruns, scheduled and actual deliveries and other major accomplishment milestones such as major design reviews, first airframe, launching of ship, and so forth, for all programs in excess of \$10 million. Estimated and actual unit costs should be included. Where there are cost variances, whether they be underrun or overrun, GAO should separate them into their components such as labor, labor rates, overhead rates, material and subcontract costs, and general and administrative expense.

(b) So-called "progress payments," made by the Government on firm-fixed and fixed-price incentive contracts in excess of \$1 million, compared to work segments satisfactorily completed, rather than simply costs incurred.

(c) Technical performance standards which would compare actual performance of weapons systems and other hardware to contract specifications.

(d) Impact on costs, schedules, and technical performance of authorized contract changes from contract base line described in a., b., and c. above. GAO should be prepared to furnish backup data to support impact on a change-by-change basis.

Comment: In addition to the general objections I raised concerning recurring GAO reports to the Congress, I believe that this recommendation might cause confusion since the Department of Defense will in any case continue to produce reports on weapons systems. Experience indicates that it is unusual for reports from two sources on systems of the size covered in the recommendation to be in agreement. As a result, an unfortunate number of manhours are spent trying to reconcile or explain differences.

If I may speak for GAO, I also believe that a tremendous workload would be caused by this recommendation. The GAO would have to examine thousands of transactions each year, even with the proposed \$10 million threshold. Building the staff to do this would be difficult, especially since auditors are in short supply in the American economy. As a further point on staffing, the Comptroller General has previously noted his inability to consider the technical nature of performance requirements. For many weapons systems, only a few highly trained individuals are capable of understanding performance requirements in the depth required to make the recommended comparisons.

Recommendation 4: GAO should develop a military procurement cost index to show the prices of military end products paid by the Department of Defense, and the cost of labor, materials, and capital used to produce the military end products.

Comment: While I have no objection to the development of an index of this type by GAO, there are a number of indexes available both from the Department of Commerce and other sources that provide similar information.

Recommendation 5: GAO should study the feasibility of incorporating into its audit and review of contractor performance the should-cost method of estimating contractor costs on the basis of industrial engineering and financial management principles. The feasibility study should, if possible, be completed by the end of the current calendar year.

Comment: I have no objection to this recommendation and would be interested in the results of the feasibility study.

Recommendation 6: GAO should compile a defense-industrial personnel exchange directory to record the number and places of employment of retired or former military and civilian Defense Department personnel currently employed by defense contractors, and the number and positions held by former defense contractor employees currently employed by the Defense Department.

The directory should include the names of all retired military or former military personnel with at least 10 years of military service, of the rank of Army, Air Force, or Marine colonel or Navy captain or above, former civilian personnel who occupied supergrade positions (GS-16 and above) in the Department of Defense, and former defense contractor employees who occupy supergrade positions (GS-16 and above) in the Department of Defense.

Comment: I have no objection to the publication of this directory, although it might be difficult to collect accurate information for it, particularly if the term "defense contractor" is interpreted broadly.

Recommendation 7: The Defense Department should collect complete data on subcontracting including total amount of subcontracts awarded, contracted out,

the relationship between the prime contractor and the subcontractors, the amount of business done by the subcontractor for the prime contractor, and compliance with the Truth-in-Negotiations Act. GAO should have access to this information and should make it available to Congress on an on-going basis.

Comment: My reaction to this recommendation is that it appears to require a data collection effort of an unparalleled scope and magnitude. While I don't think that anyone can be certain at this time, this recommendation could result in reporting by a substantial number of the companies in the United States depending upon the level of subcontracting included. If there are some problems in the subcontracting area, perhaps some additional data should be collected on a one-time basis for special analyses. However, I do not believe that the recurring collection of total data on all subcontracting actions is realistic. This practice, rather than making a substantial contribution to efficiency and economy, would be very expensive for the Department to implement.

Recommendation 8: The Defense Department should require contractors to maintain books and records on firm fixed-price contracts showing the costs of manufacturing all components in accordance with uniform accounting standards.

Comment: My office is currently participating in a study conducted by the Comptroller General to determine the feasibility of applying uniform cost accounting standards in all negotiated prime contracts and subcontracts of \$100,000 or more for defense procurement. This study was directed by the Congress in P.L. 90-370. Further comments on this recommendation depend upon the outcome of the study.

Recommendation 9: The subcommittee once again makes the longstanding and unheeded recommendation that DoD make greater use of true competitive bidding in military procurement, and that the tendency to award contracts by noncompetitive negotiation be reversed.

Comment: Based upon the Subcommittee's report, "true competitive bidding" appears to mean formally advertised procurements. I strongly support using this method of procurement and agree with the Subcommittee that DoD should make maximum use of it. On the other hand, much of the equipment bought by DoD is highly complex and involves research and development so that the development of the exacting specifications required for formal advertising is impossible. In these cases, it is still possible to have true competition although it is obtained by means other than formal advertising. I believe that making awards after negotiating with a number of sources will continue to be necessary if the United States is to develop superior weapons systems. At the same time, it must also be recognized that a number of sole-source procurements are also necessary and are in fact the only practical and economical means to obtain certain items, such as annual requirements for some of the weapons systems in production or for ammunition. Even in these cases, the Department will make efforts to obtain competition whenever possible.

Recommendation 10: Legislative action should be taken to make the submission of cost and pricing data mandatory under the Truth-in-Negotiations Act for all contracts awarded other than through formally advertised price competition procedures, and in all sole source procurements whether formally advertised or not.

Comment: My only comment regarding this recommendation is that the Department should continue to have the authority to grant waivers. This would enable us to avoid situations where we would have to buy from other than the best source or be forced, under the law, not to buy items needed for national security purposes at all. These situations could occur in the event that, for some reason perhaps now unforeseen, a contractor could not comply with the Act. I do feel that waivers should be granted only after thorough investigation and should be limited to the smallest possible number of procurements.

Recommendation 11: Legislative action should be taken to establish uniform guidelines for all Federal agencies on the use of patents obtained for inventions made under Government contract.

Comment: I recognize that patent policy is a very complex subject and there are many better qualified than I to comment on this issue. My only concern is that our policies should strike a proper balance between encouraging innovation and providing short term economies to the government. I certainly have no objection to the development of uniform guidelines for Federal agencies on patent policy.

Question 3. On page 3 of your statement, you point out that in the period 1964-1970 military spending rose by \$27 billion while other outlays increased by \$47 billion.

Can you tell us what items you include in "other outlays"?

Do you include highway trust funds and other non-controllable expenditures?

Answer 3. As mentioned in the text, this refers to Table 1. That table shows military spending rising from \$50.8 billion to \$77.9 billion—by \$27.1 billion and other outlays increase from \$70.7 billion to \$117.9 billion—by \$47.2 billion.

This covers all other outlays, as indicated in the text and table, including the highway trust fund.

We have some difficulty with your reference to "non-controllable expenditures". The highway trust fund is not so classified in the President's budget (p. 16 for FY 1970). This program (except for payments from prior-year contracts, which are treated as uncontrollable for any program) is reflected as a "relatively controllable" one from the viewpoint of the Executive Branch.

The figure for "other outlays" does include programs classified in the budget as "relatively uncontrollable" from the viewpoint of the Executive Branch. To be sure there is no misunderstanding (along the lines of your question number 6) I want to state explicitly that nothing in my answer is intended to suggest that the Congress is not the ultimate controller of the public purse, nor am I trying to suggest that the Congress could not reduce outlays for the highway trust fund or any other program if it is so desired. Indeed, the President's budget makes clear that it is largely because of laws on the books—which the Congress can obviously change—that certain items are classified as "relatively uncontrollable . . ." As the budget states (p. 15): ". . . in some cases, national priorities are arbitrarily distorted by the fact that the outlays for some Federal programs are sheltered in basic law from meaningful annual control . . ."

Question 4. Your statement places the Defense budget for FY 1970 in 1964 dollars. This is a helpful deflation of that budget and is done correctly. This is the first time that this has been presented to the Congress.

Would you supply for the record estimates of the DoD budget and its components in 1964 dollars for as far back as the cost deflator data will permit. This is the data in Table 2 and its attachments.

I should think that this "constant dollar" DoD budget would be calculable back to the 1930's. Also, would you supply for the record your budget projections for the 1970's in 1964 dollars and your projections of the DoD budget as a percent of GNP and as a percent of the Federal budget.

Answer 4. As to the first part of your question, there are attached two tables which reflect the Defense budget in 1964 dollars, and the GNP/Federal budget relationships, from 1939 through 1970.

For 1968 and earlier years these tables are based on the GNP deflator for Federal purchases of goods and services appearing on page 231 (Table B-3) of the 1969 Economic Report of the President. We did not attempt to reconstruct a special index for Defense, breaking out military and civilian pay, retirement costs, and other items for each of the 32 years. Such an approach would require a great deal of time, if it was possible at all.

We feel, however, that the data which are furnished offer a fair and reasonably accurate presentation of the Defense budget in constant dollars over the years indicated.

The second part of your statement involves a projection of the Federal budget, the DoD budget, GNP, and price trends for FY 1971 and beyond. The President will transmit FY 1971 budget requests to the Congress in January 1970, following review of Government-wide requirements and applying the best and most-recent information available. Until that is done, we have no basis, and no authority, for furnishing budget forecasts beyond FY 1970.

Question 5. On page 16 of your statement, you discuss the DoD decision process. It strikes me that once you have your initial intelligence estimates and your policy determinations, you never look back to reappraise them. You imply that the costs of attaining these policy determinations have no influence in the planning process on whether or not the original objectives should be revised downward.

Is this true?

If so, it seems to me that the process ought to be revised so that costs can become relevant in policy planning.

Answer 5. I would like to refer to that section of my statement dealing with the Defense Resource Allocation Process, which starts on page 16, as you indicate. In the last paragraph of this section, I stated: "I want to emphasize that the planning, programming and budgeting cycle involves a careful assessment of the threat and our national security objectives. The resource implications of alternative strategies are introduced very early in the cycle and are thoroughly studied and discussed for almost a year before a budget is transmitted to Congress." (p. 20)

Discussing the various memoranda which are basic to the process, I observed that, "among other things, these memoranda are the vehicle for bringing the results of economic analysis to bear upon the choices under consideration." (p. 17)

In short, we place a great deal of emphasis upon the points you mention, and this is covered at considerable length in my statement.

Question 6. On pages 5 and 6 of your statement, you grant Congress only the role of advice and consent in determining the defense budget.

Are you suggesting that the Congress is not the ultimate controller of the public purse, and that in the long run, it does not control the size of the defense budget?

Answer 6. The statement upon which your question is predicated indicates a misunderstanding. I used the words "advice and consent" as follows: "The articulation of national security policy is a function of the President, acting through the National Security Council, with the advice and consent of the Congress."

I do not regard "the articulation of national security policy" and "determining the defense budget" as interchangeable phrases. Moreover, I went to considerable length—especially on pages 11-16—to describe Congressional controls over the Defense budget.

Question 7. You refer on pages 16 and 17 to the planning process in DoD. A number of documents are mentioned there: The 5-year defense program, (FYDP), The Joint Strategic Objectives Plan (JSOP), the Draft Presidential Memorandums, the Defense Guidance Memorandums, and Major Program Memorandums. These policy and planning memoranda, you state, are circulated to Department of State, the Bureau of the Budget, the White House Executive Office for comment. Are any of these documents circulated to the Congress or to its Committees? If so, which Committees and which Congressmen gain access to them?

It seems to me that if Congress is going to play an increased role in scrutiny of defense budget proposals, we must have access to some of these planning documents so that our decisions can have an effect before these programs become accepted by the Department of Defense and the White House as firm and unchangeable administration policy. Would you agree with this, Mr. Moot?

Answer 7. The documents you mention have not been furnished to the Congress. Instead, in recent years, the Secretary of Defense has utilized the comprehensive posture statement to provide the Congress with information on defense plans and programs.

As to the second part of your question, neither the Committees on Appropriations or Armed Services of the House and Senate, or the Congress as a whole have regarded Defense program and budget proposals as "firm and unchangeable administration policy".

Aside from this, the second part of your question raises a number of very broad issues, which go considerably beyond my charter as Comptroller of the Department of Defense.

Question 8. You speak about the Republic of Korea and the threat to it. Could you give us some idea of how many U.S. forces are stationed in Korea for the defense of that nation and what the annual budgetary cost of our South Korean commitment amounts to?

Could you supply for the record the dollar cost of maintaining a force level in Southeast Asia sufficient to counter a hypothesized Communist Chinese land invasion?

Answer 8. There are approximately 56,000 U.S. military personnel deployed to South Korea. The 1970 budgetary cost of these forces is about \$1.5 billion.

The dollar cost of maintaining a force level in Southeast Asia sufficient "to counter a hypothesized Communist Chinese level invasion" is difficult to calculate. First, countering the land invasion can operate at three levels—holding against an initial attack, maintaining a sustained defense and rear area security and finally launching a counteroffensive to defeat the enemy. Second, the use of nuclear weapons must be considered. If the United States initiates the use of nuclear weapons to halt the land invasion, costs will be affected. However, given the developing nuclear capability of Communist China, we must be prepared to have these weapons used against our own forces, and if the invasion occurs during or after the mid-1970's, against our cities. Third, we must consider the assistance available from our allies. The forces of the SEATO countries would participate in the common defense of the area, but the nature, readiness and deployment of these forces will in some measure depend upon the outcome in Vietnam and the amount of military assistance that the United States provides to our allies. Because of the many assumptions and factors involved, the dollar cost of meeting the specific threat of a Chinese Communist land invasion in Southeast Asia cannot be stated without presenting detailed data that are classified. However, the Department of Defense believes that the aggregate of the forces, including land, naval and tactical air units, now deployed to the western Pacific for a variety of purposes would be more than sufficient to perform a holding action against this threat.

TABLE 1.—MILITARY OUTLAYS, FEDERAL OUTLAYS, AND GNP RELATIONSHIPS

[Dollar amounts in billions]

	Deflator: 1 1958=100	Deflator: 2 1964=100	Military outlays in 1964 dollars	GNP ^a	Federal budget outlays				Federal budget outlays as percent of GNP ^b			Military outlays as percent of Federal budget ^c
					Net total ^d	Military ^e	Other ^f	Offsets ^g	Total	Military	Other	
Fiscal years:												
1939.....	40.8	36.4	\$3.2	\$87.6	\$8.8	\$1.2	\$7.7	(10)	10.1	1.3	8.8	13.2
1940.....	40.2	35.8	4.4	95.0	9.6	1.6	8.8	(1)	10.1	1.6	8.5	16.3
1941.....	46.6	41.5	14.6	109.4	14.0	6.1	7.9	(10)	12.8	5.5	7.2	43.4
1942.....	52.5	46.8	50.4	139.2	34.5	23.6	10.9	(10)	24.8	16.9	7.9	68.3
1943.....	54.9	48.9	129.0	177.5	78.9	63.1	15.8	(10)	44.5	35.5	8.9	80.0
1944.....	53.8	48.0	158.5	201.9	94.0	76.1	17.9	(10)	46.5	37.7	8.9	81.0
1945.....	53.1	47.3	168.9	216.8	95.2	79.9	15.3	(10)	43.9	36.8	7.1	83.9
1946.....	57.3	51.1	82.2	201.6	61.7	42.0	19.7	(10)	30.6	20.8	9.8	68.1
1947.....	65.6	58.5	23.6	219.8	36.9	13.8	23.1	(10)	16.8	6.3	10.5	37.4
1948.....	69.8	62.2	17.8	243.5	36.5	11.1	25.4	(10)	15.0	4.6	10.4	30.4
1949.....	73.0	65.1	18.4	260.0	40.6	12.0	28.6	(10)	15.6	4.6	11.0	29.6
1950.....	72.9	65.0	18.4	263.3	43.1	11.9	31.2	(10)	16.4	4.5	11.9	27.9
1951.....	79.4	70.8	29.2	310.5	45.8	20.7	25.1	(10)	14.7	6.7	8.1	45.7
1952.....	81.2	72.4	57.1	337.2	68.0	41.4	26.6	(10)	20.2	12.3	7.9	60.2
1953.....	81.4	72.5	65.7	358.9	76.8	47.7	29.1	(10)	21.4	13.3	8.1	62.1
1954.....	83.5	74.4	58.6	362.1	71.1	43.6	28.5	-\$1.2	19.6	12.0	7.9	61.5

1955.....	86.9	77.5	48.2	378.6	68.5	37.4	32.4	-1.2	18.1	9.9	8.6	54.5
1956.....	91.7	81.7	46.2	409.4	70.5	37.7	34.2	-1.5	17.2	9.2	8.3	53.6
1957.....	95.8	85.4	47.1	431.3	76.7	40.2	38.4	-1.9	17.8	9.3	8.9	52.4
1958.....	100.0	89.1	46.5	440.3	82.6	41.4	43.1	-1.9	18.8	9.4	9.8	50.1
1959.....	102.2	91.1	48.0	469.1	92.1	43.7	50.6	-2.2	19.6	9.3	10.8	46.3
1960.....	104.2	92.9	46.4	495.2	92.2	43.1	51.4	-2.3	18.6	8.7	10.4	45.6
1961.....	105.2	93.8	47.6	506.5	97.8	44.6	55.7	-2.5	19.3	8.8	11.0	44.5
1962.....	105.6	94.1	51.3	542.1	106.8	48.3	61.1	-2.6	19.7	8.9	11.3	44.2
1963.....	108.0	96.3	51.5	573.4	111.3	49.5	64.5	-2.7	19.4	8.6	11.2	43.4
1964.....	112.2	100.0	50.8	612.2	118.6	50.8	70.7	-2.9	19.4	8.3	11.5	41.8
1965.....	115.5	102.9	45.8	654.2	118.4	47.1	74.5	-3.2	18.1	7.2	11.4	38.7
1966.....	118.8	105.9	52.1	720.7	134.7	55.2	82.9	-3.4	18.7	7.7	11.5	40.0
1967.....	121.2	108.0	63.3	766.5	158.4	68.3	94.1	-4.0	20.7	8.9	12.3	42.1
1968.....	126.1	112.4	69.4	822.6	178.9	78.0	105.5	-4.6	21.7	9.5	12.8	42.5
1969.....	131.8	117.5	66.7	893.0	185.6	78.4	112.3	-5.1	20.8	8.8	12.6	41.1
1970.....	134.2	119.6	65.1	960.0	190.1	77.9	117.9	-5.7	19.8	8.1	12.3	39.8
1970R ¹¹	137.9	122.9	65.1	960.0	192.9	80.0	118.6	-5.7	20.1	8.3	12.4	40.3

¹ Economic Report of the President, January 1969, p. 231 through 1968; 1969 and 1970 figures are based on the next column at 112.2 to 100 (see note ²).

² 1970 figure estimated. Details are presented in attachments to Table 2 of the statement furnished to the Joint Economic Committee on June 6, 1969. 1968 and earlier figures are based on the deflator with 1958=100, converting at 112.2:100 (see note ¹); 1969 figure is interpolated between 1968 and 1970.

³ Budget of the United States, 1970, Special Analyses, p. 17, fiscal year 1939 data are derived by averaging 1938 and 1939 calendar year data from the 1969 Economic Report of the President, p. 227. Fiscal year 1970 data are derived from the chart in the fiscal year 1970 budget, p. 29.

⁴ Source: 1939-68—The Budget of the United States, 1970, table 20, p. 533. 1969-70, revised estimates, Bureau of the Budget.

⁵ Source: 1939-53—OASD(C), FAD-236, May 1, 1969. 1954-58—Data provided by Treasury Department to reflect outlays on same basis as published in Annual Report of the Secretary of the Treasury, June 30, 1968, Statistical Annex, p. 17. 1959-68—The Budget of the United States, 1970, table 17, p. 527. 1969-70—OASD(C), table 3, May 21, 1969. Includes "Defense-Military" and "Military assistance."

⁶ The offsets are added to the net total to produce the agency total; that is, the total amounts that are reflected in the budgets of various agencies before deduction of Government-wide offsets. The military total is deducted from this agency total to derive the total for other agencies.

⁷ Through fiscal year 1968, the source is: Statistical Appendix to Annual Report of the Secretary of the Treasury, June 30, 1968, p. 17. Amounts are undistributed intragovernmental transactions deducted from Government-wide totals under new concepts. Includes Government contribution for employee retirement and interest received by trust funds. For fiscal year 1969 and fiscal year 1970, the source is the fiscal year 1970 budget, p. 530.

⁸ Figures do not add to total for 1954 and later because of intragovernmental transactions.

⁹ For 1954 and later, this is the military percentage of the agency totals, before deducting intragovernmental transactions.

¹⁰ Not available.

¹¹ This line reflects data resulting from inclusion of the Government-wide pay raise effective July 1, 1969. In the 1970 President's budget, the pay raise was excluded from DOD estimates for 1970 but included elsewhere as a separate item covering all Government agencies.

TABLE 2.—NON-SEA AND NONRETIREMENT OUTLAYS IN CONSTANT DOLLARS, AND AS A PERCENT OF GNP¹
 [Dollars in billions]

Fiscal year	Budget outlays, DOD military and MAP				Deflator applied to "other" ²	"Other" in fiscal year 1964	Non-SEA and Non-retirement outlays as percent of—	
	Total	South-east Asia	Retired pay ¹	Other			Federal budget	GNP ³
1939	\$1.2		(3)	\$1.1	36.4	\$3.1	12.5	1.3
1940	1.6		\$0.1	1.5	35.8	4.2	15.6	1.6
1941	6.1		.1	6.0	41.5	14.5	42.9	5.5
1942	23.6		.1	23.5	46.8	50.2	68.1	16.9
1943	63.1		.1	63.0	48.9	128.9	79.8	35.5
1944	76.1		.1	76.0	48.0	158.3	80.9	37.8
1945	79.9		.1	79.8	47.3	168.7	83.8	36.8
1946	42.0		.1	41.9	51.1	82.1	67.9	20.6
1947	13.8		.1	13.7	58.5	23.4	37.1	6.3
1948	11.1		.1	10.9	62.2	17.6	29.9	4.5
1949	12.0		.2	11.8	65.1	18.2	29.1	4.5
1950	11.9		.2	11.7	65.0	18.1	27.1	4.4
1951	20.7		.3	20.4	70.8	28.8	44.5	6.6
1952	41.4		.3	41.0	72.4	56.7	60.3	12.2
1953	47.7		.4	47.3	72.5	65.2	61.6	13.2
1954	43.6		.4	43.2	74.4	58.1	59.9	11.9
1955	37.4		.4	36.9	77.5	47.7	53.0	9.8
1956	37.7		.5	37.3	81.7	45.6	51.8	9.1
1957	40.2		.5	39.7	85.4	46.5	50.5	9.2
1958	41.4		.6	40.8	89.1	45.8	48.3	9.3
1959	43.7		.6	43.1	91.1	47.3	45.7	9.2
1960	43.1		.7	42.4	92.9	45.7	44.9	8.6
1961	44.6		.8	43.9	93.8	46.8	43.8	8.7
1962	48.3		.9	47.4	94.1	50.3	43.4	8.7
1963	49.5		1.0	48.5	96.3	50.4	42.5	8.5
1964	50.8		1.2	49.6	100.0	49.6	40.8	8.1
1965	47.1	\$0.1	1.4	45.6	103.6	44.0	37.5	7.0
1966	55.2	5.8	1.6	47.8	106.6	44.8	34.6	6.6
1967	68.3	20.1	1.8	46.4	108.7	42.7	28.6	6.1
1968	78.0	26.5	2.1	49.4	113.1	43.7	26.9	6.0
1969	78.4	28.8	2.4	47.2	118.2	39.9	24.8	5.3
1970	77.9	24.9	2.7	50.3	120.3	41.8	25.7	5.2
1970(R)	80.0	25.1	2.8	52.1	124.6	41.8	26.2	5.4

¹ Source: 1939-48—approximated from obligation and appropriation data as reflected in the budget of the United States for the applicable years. 1949-68—Combined Statement of Receipts, Expenditures and Balance of the U.S. Government, Treasury Department, 1949-68. 1969-1970—OASD(C) estimates.

² Figures for fiscal year 1939-64 are same as 2d column of table 1; see reference there. Figure for fiscal year 1970 is based on table 2 of June 6, 1969, statement furnished to JEC. Note that this is slightly above the fiscal year 1970 entry in the 2d column of table 1. Figures in this column for fiscal year 1965-69 are accordingly increased above the table 1 amounts. The fiscal year 1970(R) figure is the quotient of \$52.1 divided by \$41.8.

³ Less than \$50,000,000.

Chairman PROXMIRE. The committee stands in recess until Monday, when we will hear from Mr. Walter Reuther, Prof. Frederick Scherer, and Prof. Albert Shaper.

(Whereupon, at 1:45 p.m., the committee adjourned to reconvene on Monday, June 9, 1969.)

THE MILITARY BUDGET AND NATIONAL ECONOMIC PRIORITIES

MONDAY, JUNE 9, 1969

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON ECONOMY IN GOVERNMENT
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The Subcommittee on Economy in Government met, pursuant to adjournment, at 10 a.m., in room G-308 (auditorium), New Senate Office Building, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senators Proxmire and Jordan; and Representative Moorhead.

Also present: John R. Stark, executive director; economists Richard F. Kaufman and Robert H. Haveman, and Douglas C. Frechtling, minority economist.

Chairman PROXMIRE. The subcommittee will come to order.

In this, the second week of the hearings on the military budget and national economic priorities, we hope to shift focus somewhat and look more closely at the problems of defense production, in terms of both the Government's role and private management.

Today, we have with us two eminent scholars who have had many years of experience with Government contracting, procurement, and defense production. Prof. Frederic M. Scherer has been a full professor of economics at the University of Michigan since 1966. He has been a consultant for the Federal Council for Science and Technology in the area of Government patent policy and the arms control and disarmament agency. He is the coauthor, with Mr. M. J. Peck, of "The Weapons Acquisition Process and Economic Analysis," and, more recently, authored a companion volume, "The Weapons Acquisition Process: Economic Incentives."

Albert Shapero has been a professor of management at the University of Texas since 1966. He has extensive practical experience as an engineer and consultant in the aerospace industry. From 1957 to 1966, he was the director of technology for the Stanford Research Institute. He has worked as a supervisor for the Northrup Weapons Systems division, a research engineer for Hughes Aircraft, and a product manager for military products at the Mission Appliance Corp. For the past 8 years, Professor Shapero has made an in-depth study of re-

search and development in this country as well as in a number of foreign countries, including France and Israel.

Our third witness this morning will be Walter P. Reuther, president of the United Automobile, Aerospace and Agricultural Implement Workers of America, representing approximately 1,800,000 members. I will present Mr. Reuther when he comes before us.

We will hear first from Mr. Scherer.

Mr. Scherer, you may go right ahead.

**STATEMENT OF FREDERIC M. SCHERER, PROFESSOR OF ECONOMICS,
UNIVERSITY OF MICHIGAN**

Mr. SCHERER. Thank you very much, Mr. Chairman, it is a real honor and pleasure to be here with you today.

My testimony is a bit on the long side, so I think I will try to summarize it somewhat and keep it down to about 15 minutes.

Chairman PROXMIRE. We would appreciate that. And the entire statement will be printed in full in the record.

Mr. SCHERER. Very fine.

What I would like to focus on is something on which an economist has some special competence. That is the question of the enormous cost of weapons systems research, development, and production, and the large cost overruns which seem to pervade weapons systems programs.

Eight or so years back, Mr. Peck and I did a study of 12 major U.S. weapons programs, and found among other things that on the average actual costs turned out to be roughly three times the originally predicted costs, that is, the overrun factor was on the order of 220 percent.

When he became Secretary of Defense Mr. McNamara was acutely aware of this problem, and he tried to do something about it. He instituted a number of reforms trying to eliminate the overrun problem. What we find, however, as the facts begin to pile up, is that he didn't have very great success.

Let's look briefly at just two of Mr. McNamara's showcase programs, the F-111 and the C5A.

In my statement there are a number of cost estimates from the F-111 program, along with the actual costs, as of about a year ago. What one finds is that on the average the actual costs in the F-111 program range from 2.2 times to about 3 times the original cost estimates, just about the same kind of experience that we had during the 1950's.

Similarly, in the C5A program, although no one knows exactly what the cost-overrun factor is likely to be, it would appear that on the first 58 airframes the actual cost will be something like 64 or 65 percent higher than the original cost estimate, which for a transport program is quite substantial.

Now, many other similar examples could be cited if the time permitted. But I would like to go on now instead and talk about some of the causes of these large cost overruns.

One cause—and it is an unavoidable cause—is technological uncertainty. There is simply not much you can do about that in most cases.

A second cause stems from the way the contractors are selected to carry out new weapons systems programs. There is a strong incentive to be optimistic in the cost and performance estimates made. Indeed, in the aerospace industry source selection competitions are often called “bidding and lying” competitions.

A third factor is simply that we have not rooted out many of the inherent inefficiencies in the process. I understand Professor Shapero is going to talk at some length about this, so I will pass over it.

A fourth and relatively minor factor is simple economic inflation.

It is the fifth factor on which I should like to focus most intensively this morning, because here is an area where Congress may be able to make some contribution. I refer to the optimism that pervades initial program decisionmaking, both on the part of the contractor and on the part of the military. Getting a new weapons program going isn't easy. There are substantial risks and uncertainties. And realistic cost estimates tend to have a very sobering effect.

Recognizing this, industrialists and military officers are inclined to view a program's future prospects through rose-tinted glasses. There is a common belief that one should not rock the boat vigorously through criticism at the start of a program. The assumption is that troubles can be pinpointed and corrected later on when the program has its momentum.

This attitude contributes significantly to the subsequent appearance of cost overruns, and it can lead to seriously defective decisions.

Now, this is not a new point. But it is so very important that I would like to illustrate it with two case studies. Both are drawn from the 1950's and the early 1960's, in which I have had the most extensive experience. I get the impression, however, from previous testimony that nothing has changed during the last 10 years.

The first case study has to do with the Skybolt guided missile. The prime contractor for Skybolt was the Douglas Aircraft Co. How it came to that role is a very important part of the story. In the spring of 1959, when 14 firms were competing for the Skybolt job, Douglas was in trouble. It had been one of the first aircraft manufacturers to enter the guided missile field, and it had done extraordinarily well. Its responsibilities in the Nike-Ajax, Nike-Hercules, and Thor missile programs were discharged with admirable dispatch and efficiency. But the flow of orders from those programs was ebbing. To fill the gap Douglas competed vigorously for the Minuteman ICBM prime contractor's job in 1958. The award went instead to Boeing, which had prior experience in only one missile program, the Bomarc, generally acknowledged to have been a dismal failure.

After this defeat Douglas found its backlog situation desperate. Skybolt seemed to be its best new opportunity, and it went all out in the design competition. It abandoned its traditional conservative engineering philosophy. It accepted extreme technical risks in order to promise maximum technical performance. It underestimated the diffi-

culty of the Skybolt development tasks, submitting optimistic cost and delivery date estimates in the expectation that it would be bailed out a year or so later when final contract provisions were estimated.

Now, I happen to know this because I was out at Douglas on a study at the time the contract was awarded, and company officials told me.

At the time it was widely known in the aerospace industry that Douglas had grossly underestimated the difficulty of the Skybolt job.

Whether this knowledge permeated the higher levels of the Air Force general staff is not altogether clear. That it did, however, seems probable, because in 1960 Air Force Chief of Staff White almost let the cat out of the bag by announcing that the Skybolt development program would require 8 years. This "accidental mistake" was quickly corrected by a Pentagon spokesman who set the "correct" estimate at 4 or 5 years.

Full understanding of Douglas' optimism, however, evidently did not reach the very top of the Government decisionmaking structure, because in April and May of 1960 the United States negotiated with Great Britain an agreement to supply Skybolt missiles to extend the operational life of England's deterrent force mainstay, the Vulcan bomber.

A number of doubts soon arose, but the Air Force vehemently denied that the Skybolt was behind schedule in any significant event. When he took office as Secretary of Defense, Mr. McNamara also had doubts about the program. But according to Arthur Schlesinger's history, McNamara chose twice not to press for more accurate information in order to avoid a fight with Air Force generals, whom he had been fighting on other fronts.

Thus the program and the agreement with Great Britain continued into 1961 and 1962.

By 1962, however, the truth had become too compelling to deny. The cost of the program, originally estimated at \$890 million, had risen to \$3 billion, and was still climbing. The delivery schedule was steadily slipping. Rumors of cancellation leaked out in December, drawing heated protests from the British, who would have to spend enormous sums to maintain their independent deterrent if the Skybolt were canceled.

Nevertheless, on December 13 the Pentagon announced that the program would be canceled until the British picked up the remaining financial bill, which they were unwilling to do.

The rest is history. At Christmas, in Nassau, President Kennedy met with Prime Minister Macmillan, and agreed instead of Skybolt to develop a multilateral force of submarines. When General de Gaulle found out that this decision had been taken unilaterally he was furious, and he made a very angry speech on New Year's Day. From this time on relations with our NATO allies began deteriorating significantly.

Thus the repercussions of the deceit in early Skybolt decisions plus inept handling of the diplomatic dilemmas into which these decisions carried the Nation are with us even today.

I would like to speak very briefly about one other case history drawn from about the same period and then pass on to some implications. I know my time is running short, so I will summarize quite stringently.

The second case study involves the Nike-Hercules air defense missile system. The prime contractor in this program was Western Electric, with its affiliate, Bell Telephone Laboratories. Formal development of Nike-Hercules began in 1953. At the time the research and development team presented estimates of the cost of converting existing Nike-Ajax units to use the longer range, more powerful, more sophisticated Nike-Hercules missile.

They said it could be done at \$210,000 per battery through a field modification.

However, 2 years later, when the time for contract negotiations came up, they presented a new estimate. They said then: It is not possible to make modifications in the field, or at least it would be unduly expensive. Instead we should produce the equipment in our own factories at a cost not of \$210,000 per unit, but \$1.7 million per unit, a cost overrun factor of eight.

In our case study of the Nike-Hercules program we talked to a lot of Bell System executives on this. Western Electric officials admitted that their production engineering staff members knew early in the game that a field modification program would prove to be impractical, but that they had presented the highly optimistic cost estimates because they were more sellable to the Army and to Congress.

The size of the overrun involved here is not terribly large. It is \$120 million for 80 Nike-Hercules batteries. What is unsettling about this fragment of ancient history is its possible implications for the current ABM debate. Western Electric is the leading prime contractor in the ABM program. Western is undeniably a public-spirited corporation. It has been one of our most capable and successful defense contractors. Yet when the pressure to sell its program was great it knowingly submitted misleading cost estimates.

Now it is confronted with similar pressures. I have absolutely no evidence that the present ABM cost estimates are in fact optimistic. But there is also little assurance that the ABM contractors will not yield once again, no doubt in a more subtle way, to the temptations of optimism.

What is to be done about all this? My statement elaborates in some detail on why the decisionmaking process inherently generates these misleading estimates which tend to lead to bad decisions. I will skip over this part, however, and move on for the sake of saving time to a conclusion which I find, reading the papers this last week, is not really a new proposal. That is, in order to obtain a better independent estimate of the cost prospects and the technical prospects for new programs, I propose that Congress develop its own military program analysis group.

The staff to do this needn't be large. What is necessary is simply to have a handful of people who are aware of the various kinds of technical problems faced, the economic problems faced, and the organizational problems faced.

In my statement I perhaps lean in the direction of suggesting that this should be a counter DOD type of operation. I don't really mean to give this impression. The staff should include people of varying views on military programs. It should include both advocates and dissenters on key questions. What the staff might then do is prepare a report for Congress which stipulates the points of agreement and develops both the pros and the cons on the points of disagreement, carrying them as far as is possible toward the stage where a rational, well-informed decision can be made recognizing all the facts—not simply the facts that the Defense Department chooses to put forth, but all the facts on the program at issue.

Then Congress would be in a much better position to make sound decisions on military programs.

I think I have taken too long, so let me conclude my statement at this point.

I do have a couple of examples which might be brought out later if we have time on how, say, this staff could operate in connection with the present C5A issue, and in connection with the advance manned strategic aircraft program question which will be before Congress in a year or so.

Thank you very much.

Chairman PROXMIRE. Thank you, Mr. Scherer.

(Professor Scherer's prepared statement follows:)

PREPARED STATEMENT OF FREDERIC M. SCHERER

A witness before the subcommittee during these hearings cannot escape the sense of treading on exceptionally fertile soil. National concern over the role of the military-industrial complex has never been more intense, and Congress seems ready to take initiatives which may lead to lasting improvements in the conduct of national security affairs. Therefore, it is an unusually great privilege and honor to be here today.

We all recognize the symptoms of our current malaise, so I shall not belabor them. Permit me instead to focus on just one which is surely not the most important, but on which an economist has some special competence. I refer to the enormous cost of weapon systems research, development, and production programs and to the large cost overruns which appear to pervade those programs.

PAST OVERRUN EXPERIENCE

The problem is not a new one, nor is it partisan in nature. It has been with us through both Republican and Democratic administrations. Some years back I participated in a research project at Harvard University which compiled detailed case studies of 12 major weapons development programs conducted largely during the 1950's. Among other things, my colleagues and I found that on the average, actual development costs in the 12 programs turned out to exceed original predictions by 3.2 times, or 220 percent.¹

When he took office as Secretary of Defense in 1961, Mr. McNamara was conscious of this record. He exerted strenuous efforts to bring costs and cost estimates under control. The results are now becoming apparent.

Two of the most widely acclaimed showpieces in his cost control campaign were the F-111 and C-5A programs. The cost of developing the F-111 was originally estimated at \$700 million by General Dynamics and \$900 million by military analysts. By 1968, actual development costs had soared to \$2 billion. The Phoenix air-to-air missile for the Navy version of the F-111 was to be

¹ M. J. Peck and F. M. Scherer, *The Weapons Acquisition Process: An Economic Analysis* (Boston: Harvard Business School Division of Research, 1962), pp. 19-22.

developed for \$175 million. Actual costs were nearing \$420 million when the program was terminated. The cost of the TF-30 jet engine for the F-111 rose from an estimated \$273,000 per unit in early 1967 to \$700,000 just a year later when contract negotiations began. After what must have been some of the toughest negotiating by a government team on record, the actual price was reduced to \$620,000 per unit.

No one seems to know what the true overrun in the C-5A program is, but as nearly as one can tell, the cost of the first 58 airframes will exceed Lockheed's contract cost estimate by about \$900 million, or 64 percent. Compared to the F-111 experience this is not at all bad. But transport programs have traditionally attempted less ambitious technical advances than combat weapon systems, and their cost overruns have been correspondingly lower. A RAND Corporation study showed the average unadjusted cost increase in four transport programs of the 1950's to have been 30 percent.² By this yardstick, the C-5A is hardly an improvement.

Many similar experiences of recent years can be cited—i.e., the AH-56 Cheyenne helicopter program; the Army's Main Battle Tank development program; the Boeing short-range attack missile (SRAM) program; the NR-1, Dolphin, and Narwhal submarine programs; and (in another agency using kindred contractors) the Apollo program. Clearly, we have not yet mastered the overrun problem.

SOME CAUSES

There are a number of reasons why overruns persist. When ambitious research and development goals are set, technological uncertainty inevitably makes precise cost estimation impossible. The methods by which contractors are selected to carry out major new weapons and space program assignments encourage the submission of optimistic promises—"bidding and lying competitions," they are called in the trade. Despite numerous reforms, the contractual environment within which defense producers operate has not been able to root out inherent biases toward inefficient operation. Economy-wide inflation has also been a contributing factor in the last few years, although it is a little hard to take seriously claims that much of the C-5A's 64 percent overrun is attributable to this cause when the wholesale price index for metals and metal products rose by only 11 percent between 1960 and 1968. Any one of these influences could warrant an extended analysis. Today, however, I should like to concentrate on another cause which is more troubling, and about which Congress might be able to do something.

Getting a major new weapons development program going is not easy. Risks and uncertainties are always substantial, and realistic cost estimates have a sobering effect. Recognizing this, industrialists and military officers are inclined to view a program's future prospects through rose-tinted glasses. There is a common belief at the intermediate levels of the military decisionmaking hierarchy that one should not rock the boat too vigorously through criticism at the start of a program. Troubles can be pinpointed and corrected later, when the program has its own momentum. This attitude contributes significantly to the subsequent appearance of cost overruns, and it can lead to seriously defective decisions.

That such things happen is well known, but the point is so important that I should like to illustrate it with two case studies. Neither is particularly unusual in the kinds of pressures experienced and the way decisions were reached. One, the Skybolt program, is singled out here because its ultimate consequences were so momentous. The other, Nike Hercules, is chosen because it bears on one of the great decisions before Congress at the present time.

ILLUSTRATION: THE SKYBOLT PROGRAM

Prime contractor for the Skybolt guided missile program was Douglas Aircraft Company. How it came to that role is an important part of the story. In the spring of 1959, when 14 firms were competing for the Skybolt job, Douglas was in

² A. W. Marshall and W. H. Meckling, "Predictability of the Costs, Time and Success of Development," in the National Bureau of Economic Research conference report, *The Rate and Direction of Inventive Activity* (Princeton University Press, 1962), pp. 465-469.

trouble. It had been one of the first aircraft manufacturers to enter the guided missile field, and it had done extraordinarily well. Its responsibilities in the Nike Ajax, Nike Hercules, and Thor missile programs were discharged with admirable dispatch and efficiency, but the flow of orders from those programs was ebbing. To fill the gap, Douglas competed vigorously for the Minuteman ICBM prime contractor's job in 1958, but the award went instead to Boeing, which had experience in only one prior missile program—the Bomarc anti-aircraft effort, generally acknowledged to have been a dismal failure. After this defeat, Douglas found its backlog situation desperate.

Skybolt, a proposed medium-range missile to be launched from B-52 bombers, appeared to be its best new opportunity, and it went all-out in the design competition. It abandoned its traditionally conservative engineering philosophy, accepting extreme technical risks in order to promise maximum technical performance to the Air Force contractor selection board. It underestimated the difficulty of the Skybolt development tasks, submitting optimistic cost and delivery date estimates in the expectation that it would be "bailed out" a year or so later when final contract provisions were negotiated. That Douglas' estimates were unduly optimistic was well known in aerospace industry circles at the time. Whether this knowledge pervaded the Air Force general staff is not clear. That it did seem probable, however, for Air Force Chief of Staff Thomas White nearly let the cat out of the bag in 1960 by announcing that the Skybolt development program would require eight years. This "accidental mistake" was quickly corrected by a Pentagon spokesman, who set the "correct" estimate at four or five years.³

Full understanding of Douglas' optimism evidently did not reach the very top of the government decision-making structure, for in April and May of 1960 the United States negotiated with Great Britain an agreement to supply Skybolt missiles to extend the operational life of England's deterrent force mainstay, the Vulcan bomber. Doubts soon arose, however. George Brown of the opposition Labour Party asserted in September 1960 that the Skybolt development had already slipped behind schedule by ten months, but the Air Force vehemently denied delay of any "significant event" in the program.⁴ When he took office as Secretary of Defense Mr. McNamara also had doubts about the program, but he apparently elected twice not to press for more accurate information in order to avoid a fight with Air Force generals, whom he had angered with his ICBM and B-70 bomber decisions.⁵ Thus the program and the agreement with Great Britain continued through 1961 and into 1962.

By late 1962 the truth had become too compelling to deny. The cost of the program, originally estimated at \$890 million, had risen to \$3 billion and was still climbing. The delivery schedule was slipping steadily. Rumors of cancellation leaked out in early December, drawing heated protests from the British, who would have to spend large sums to maintain an independent strategic deterrent if Skybolt missiles were not available for their Vulcan bombers. Nevertheless, on December 13 Pentagon officials announced that the program would be continued only if the British agreed to pay the remaining development costs, estimated to be at least \$500 million, plus the steadily rising costs of producing the operational missiles they needed. To resolve the dispute, President Kennedy and Prime Minister Macmillan agreed at their pre-Christmas meeting in Nassau cooperatively to build up in place of Skybolt a "multilateral force" of submarines armed with Polaris missiles. France was invited to join in the MLF effort. But President de Gaulle was infuriated that England and the United States had made this critical decision on NATO policy without the simultaneous participation and consent of his country. It is probable that the Skybolt-MLF affair cemented his determination to block British entry into the European Common Market, and in the years thereafter the MLF issue contributed importantly to a deterioration of relations among NATO allies. Thus, the repercussions of the deceit in early Skybolt decisions plus inept handling of the diplomatic dilemmas into which those decisions carried the Nation are with us even today.

³ U.S.-British Deal on Missiles Is Set," *New York Times*, June 2, 1960, p. 3.

⁴ "Delay on Skybolt Seen," *New York Times*, September 2, 1960, p. 2.

⁵ Arthur M. Schlesinger, Jr., *A Thousand Days* (Boston: Houghton-Mifflin, 1965), pp. 857-862.

ILLUSTRATION : THE NIKE HERCULES PROGRAM

A second, less dramatic illustration can be drawn from the history of the Nike Hercules surface-to-air guided missile program, executed under Army prime contracts by Western Electric and its affiliate, Bell Telephone Laboratories. Formal development of Nike Hercules began in 1953. At the time, the R & D team presented estimates of the cost of converting existing Nike Ajax ground guidance and control equipment to handle the more powerful, longer range Hercules missile. It was projected that the conversion could be effected by using a field modification kit at a cost of \$210,000 per battery. This estimate was increased slightly in a further presentation during February of 1954. However, when negotiations for the first production contracts began in the early months of 1955, Western Electric announced a new approach, arguing and convincing Army officials that the conversion could be done more economically by producing complete new guidance and control units in the factory, instead of making field modifications. This turned out to cost \$1.7 million per battery—eight times the original cost estimate. The chief reason for this change in plans was that Western Electric had included in its original conversion cost estimates only the cost of parts and equipment, excluding the much larger outlays on field modification labor. When the full cost picture was considered, field modification no longer looked like the originally promised bargain. In interviews, Western Electric representatives acknowledged that their production engineering staff members knew early in the game that a field modification program would prove to be impractical, but that they had presented the highly optimistic field modification cost estimates because they were more "sellable" to the Army and Congress.

What is unsettling about this fragment of ancient history is its possible implications for the current ABM debate. Western Electric is the leading prime contractor in the ABM program; indeed, the Nike Hercules project sired the ABM effort. Western is undeniably a public-spirited corporation. It has been one of our most capable and successful defense and space contractors. Yet when the pressure to "sell" its program was great, it knowingly submitted misleading cost estimates. Now it is confronted with similar pressures. I have absolutely no evidence that the present ABM program cost estimates are in fact optimistic. But there is also little assurance that the ABM contractors will not yield once again—no doubt in a more subtle way—to the temptations of optimism.

THE NATURE OF THE DECISION-MAKING PROCESS

From these case histories and many like them two immediate morals can be drawn. One is mundane: that the competitive forces playing upon weapons and space contractors induce them to make optimistic predictions which eventually result in large cost overruns and faulty decisions. The second is more vital: that the weapons program decision-making process by its very nature tends to generate faulty choices based upon inaccurate and misleading projections.

Some elaboration on this second point may be useful. Decisions are not likely to be much better than the information and analyses on which they are grounded. In weapons development program decisions, most of the information on costs, schedules, and detailed technical performance expectations originates with the contractors. Obviously, contractors have an incentive to present their prospective programs in a favorable light, and so they tend to be optimistic. On its way to the apex of the defense decision-making hierarchy, this information passes through what organization theorists call "filters"—the program management offices of the military services and higher level military staff units. Organizational filters could conceivably serve to correct initially inaccurate information inputs, but in the present context the military officers involved are themselves advocates, so they often fail to make such corrections. Sometimes they even add their own distortions by screening out information which reflects adversely on a program they favor.

The task falls then upon the Office of the Secretary of Defense to bring back some semblance of realism before major program decisions are approved. This has always been recognized, although there have been differences over time in the vigor with which an independent corrective role has been pursued. Secretary McNamara went further than any previous secretary in trying to develop his

own independent bases for decision-making. As the evidence accumulates, we see that he was less spectacularly successful. Why this was so is a difficult question, but permit me to offer a few observations in partial explanation.

For one, the lines of communication between the Office of the Secretary of Defense and the actual laboratories and production shops where weapons program work is done are quite long. They are also not easily bypassed. Much of the information with which members of the Secretary's staff work comes either through the filtering process I have described or from formal briefings which can be channeled and controlled, no matter how astutely and penetratingly the persons being briefed raise questions. There are also formidable barriers to having a member of the Secretary's staff visit a contractor facility and simply wander around unguided, talking confidentially with many people, though this is the best way to find out what is really going on. The mantle of authority erects walls around its bearer. Consequently, members of the OSD staff have had to make their own seat-of-the-pants estimates on such matters as costs and technical feasibility. These have been remarkably good sometimes, but only sometimes. When a person becomes a "desk engineer," his feel for the technologies and (equally important) organizations with which he is dealing can deteriorate rapidly. Because he lacks first-hand contact with the technical problems faced, it is possible for him to go seriously astray in his independent cost and performance estimates.

To compensate for these problems and to supplement the limited internal staff resources at its disposal, OSD has turned to such organizations as the Institute for Defense Analyses and the RAND Corporation for independent counsel. They have helped, but they are no panacea. Their staff members are also far removed organizationally from the locus of actual weapons R & D work. Their access to work sites is limited. For instance, when a RAND Corporation cost analysis group estimated that true RS-70 program costs were likely to exceed original contractor estimates by nine times, they were barred from the grounds of North American Aviation plants for many months. There are also many pressures impinging upon the independence of organizations providing advice to government decision-makers. At the time when groups in the RAND Corporation began raising embarrassing questions about the RS-70 program, RAND suddenly found itself having difficulty getting its contract with the Air Force renewed. However courageous an organization's leaders may be, a certain amount of prudent restraint is almost certain to be exercised under such circumstances. And to note one further problem, there is reason to believe that the quality of the personnel staffing such organizations as RAND and IDA has deteriorated over time as the novelty of working for a military "think tank" wore off and senescence set in.

Another limitation of analytic staff groups in the Pentagon has even more disturbing ramifications. I suspect that a subtle kind of natural selection process makes it difficult for the Secretary of Defense to get no-holds-barred, broad ranging counsel from his technical staffs on new program proposals and options. One of the striking phenomena of the past eight years has been the invasion of the Pentagon by economists. It has been interesting to observe which members of my profession accepted Pentagon jobs and which were successful there. By and large, those who have agreed to do Pentagon staff work accept with only modest reservations the orthodoxy of the Cold War: to oversimplify, that we can solve problems of international conflict by achieving military superiority, and by using force or threatening to use it. I happen to think that such a chauvinistic view is unsound and even dangerous in a world of reciprocal suspicions, misunderstandings, and arms races. I would give odds that a sizeable majority of the economists presenting papers at this year's annual meeting of the American Economic Association and the Econometric Society would share my apprehension. So the Pentagon economics staff is probably not a random sample of the economics profession's main stream. There have, to be sure, been some notable exceptions to this Cold Warrior staffing bias. But except for the few who arrived on the early McNamara-Hitch bandwagon in 1961, OSD staff economists who have seen fit to contest the hoary shibboleths of the cold war have not been very successful in the Pentagon. The persons who get elevated to top jobs tend to be those who either embrace orthodoxy or at least keep their doubts below the surface. Those who voice fundamental objections are

passed over, become frustrated from being ignored, and/or develop an uneasy sense of being out of place. They resign to accept more satisfying assignments elsewhere. And so the natural selection process biases the composition of the Secretary's staff and prevents him from getting a multi-sided analysis. To give an illustration, I have been told by a former staff member that for nearly 18 months the Office of the Assistant Secretary of Defense for Systems Analysis worked under guidelines specifying that Soviet and Chinese reactions were to be excluded from consideration in analyses of the Sentinel ABM program. Yet this was the very essence of the problem, and to ignore it was to guarantee an ill-conceived decision. I have no first-hand knowledge as to whether this selection bias extends to the Defense Secretary's scientific and engineering staff. It would be quite surprising, however, if it did not.

Lest this criticism be misunderstood, I hasten to add my opinion that the OSD systems analysis staff has done a good job in many respects. The Nation would be worse off if it were eliminated or emasculated. Subject to the information limitations I have noted earlier, it has worked hard and with some success to ensure that programs patently more costly or in other ways inferior to available alternatives were eliminated. It has also helped hold the line against certain new programs—e.g., the RS-70—which would have shaped U.S. military capabilities in directions inconsistent with approved strategic doctrines. For a while too—but not consistently—it called attention to the potentially destabilizing character of certain ballistic missile defense deployment strategies. However, because of built-in organizational and staffing biases, it has been much less effective in challenging the basic strategic assumptions underlying many program decisions—i.e., whether the Soviet Union in fact posed the qualitative and quantitative threat taken for granted in many decisions. Thus, it has worked to see that the best weapon systems were chosen for specific missions, but it has not questioned deeply whether the missions themselves were justified. It has also failed to take into account with any degree of consistency how our force structure and strategy choices influence the reciprocal force structure decisions of the Soviet Union and other nations systems analysts so blithely call “the enemy.” As a result of these shortcomings, the United States has continued to place its emphasis in international relations upon military solutions which in the long run are both self-defeating and enormously costly due to the inexorable dynamics of the arms race.

Furthermore, once decisions have been taken by the Secretary of Defense, members of the Systems Analysis staff tend, like all good organization men, to fall into line and cease whatever criticism and opposition they exhibited. Vigorous critical give-and-take ceases for the sake of a uniform position; doubts are transformed into certainties. And so hundreds of millions of dollars or perhaps even billions are expended in approved programs until some series of events demonstrates dramatically and unmistakably that the original assumptions were faulty.

Unless these observations miss the mark completely, it follows that the program recommendations and decisions emanating from the Office of the Secretary of Defense are based with alarming frequency upon distorted data and poorly-framed myopic analyses. As such, they deserve to be received with considerable skepticism. To accept them at face value is to insure a continuation of high cost overruns and programs which consume billions of dollars, but whose effectiveness is quickly nullified by Soviet Union countermeasures.

To suggest that there is any simple, sure-fire cure for these ills would be irresponsible. Nevertheless, the time may be ripe for a step in the right direction. Congress can continue the revolt it has already begun by expanding its capacity to review defense program decisions in a truly independent manner. To do so, it needs an expanded staff able to grapple skillfully and as objectively as is humanly possible with complex defense program issues. Such a staff need not be large; a handful of individuals with the essential technical backgrounds and an instinct for the jugular can often do more good than hundreds unable to penetrate to the core of a tough scientific-economic issue. In forming such a staff, it is obviously important to avoid relying largely upon persons who commute back and forth between Washington and the defense industry. One alternative source might be academic. Well-qualified physicists, engineers, economists, political scientists, and the like would no doubt agree to take a year or so off if a really challenging

opportunity for serving the Nation existed. To be sure, the political problems of setting up such a staff in the midst of already overlapping committee jurisdictions would be thorny, but Congress surely has the wisdom to overcome that kind of obstacle if the will is present.

I have no illusions that this suggested step will remedy all our military program decision-making difficulties. A Congressional defense analysis staff would be constrained by the same kinds of communications and information limitations which hem in the Defense Secretary's staff. Still it could at least provide a fresh analytic point of view and ensure that the hidden assumptions and uncertainties of Executive Branch proposals are brought into the open where they can be scrutinized thoroughly.

In my opinion it is most urgent that progress be made in this direction. It has been heartening to observe the emergence of a critical independent stance on defense issues within Congress in recent years. But there are also attendant dangers. Such questions as the ABM deployment decision are incredibly complex, and there have been signs of "know-nothingism" on both sides of the argument. Given the backdrop of assumptions about Soviet capabilities and intentions provided by the Pentagon, a heavy Senate vote in favor of Safeguard ABM deployment next month could signal to both sides the start of a new round in the nuclear arms race. If on the other hand Congress rejects ABM deployment and if subsequent Russian ICBM program developments then force a reconsideration, the reaction could stampee the United States and the rest of the world into the greatest arms race in history. Neither possible outcome is very attractive. What stability in these precarious times requires is not a simple go-no go decision, but a delicate mixture of restraint combined with well-planned, clearly articulated hedge measures should the forthcoming arms limitation talks fail to show progress. As Congress moves to play a truly independent role in defense decision-making, it must take its responsibilities seriously and avoid simplistic solutions. I hope and urge that it do so.

Chairman PROXMIRE. Mr. Shapero?

**STATEMENT OF ALBERT SHAPERO, PROFESSOR OF MANAGEMENT,
UNIVERSITY OF TEXAS, AUSTIN**

Mr. SHAPERO. I am honored to be here before this committee. I think this is an important topic, one very important for the country as a whole.

My testimony is concerned with the management of that part of the military budget devoted to research and development of new weapon systems. Though R. & D. takes up only a fraction of the total military budget, the absolute amount of dollars is substantial. I understand it is presently projected at something like \$8 billion. Furthermore, the fraction of the country's limited supply of highly valued scientific and technical resources that is involved in military R. & D. is very large. Consequently the efficient and effective use of these resources must be a matter of national concern not only in terms of their value and contribution to the country's security but also in terms of their value and potential value to all of our national objectives.

The bulk of my formal statement is contained in an article that compares different national styles of engineering. It is appended here for inclusion in the record. This article describes how different countries develop military aircraft, some with startling fewer engineers than we employ. The article further discusses some of the reasons that explain these differences.

However, I would like to add a few comments based on the specific studies which led to the appended article, on several years of re-

search on the R. & D. industry, and on several years as a manager in a nonprofit research institute and in the aerospace industry. These can be summarized in three points:

1. Sincere, dedicated Government officials and industrial managers, in their very efforts to obtain and provide the country with an effective and economical system, have generated a body of procurement mechanisms and responding industrial activities that have ironically acted to defeat the purposes for which they were created.

More specifically, Government officials—and here I widen my discussion to also include the National Aeronautics and Space Administration and the Atomic Energy Commission—in their efforts to guarantee competent management and competent engineering and to overcome uncertainty have imposed a continually growing number of requirements for the use of specific and detailed techniques and activities on their contractors. These include requirements for the use of particular planning techniques such as project evaluation and review technique (PERT) and program evaluation procedure (PEP), production and reliability engineering approaches such as value engineering and zero defects, engineering techniques such as human engineering and many others.

Each of these detailed requirements has resulted in the formation and institutionalization of new organizational entities in the contractor and monitoring establishments. Consequently, these activities have often created self-perpetuating professional constituencies in the form of new professional societies, new professional journals and even new additions to the academic curriculum.

The net result has been the gradual growth of a ponderous and cumbersome procurement and development complex that many have come to believe is the natural way of doing technical things.

Furthermore, many have become so optimistic as to believe that it has superior attributes that make it applicable to nontechnical problems, such as poverty, economic development, and the like.

2. Despite all our efforts to guarantee superior managerial and technical performance by imposing a large body of contractual requirements we have not achieved an impressive or consistent level of success.

We still get some systems that are overrun in costs, deficient in reliability, late on schedule, and ineffective in operation. If the contractual requirements were truly critical to performance we would not have these failures. Furthermore, the fact that a country like France can produce effective combat aircraft with a very small percentage of the technical manpower we employ demonstrates that success is not dependent on using our techniques. (See the appended article.) It may very well be that in our efforts to specify a detailed path to development success we have hobbled and complicated the efforts of our best managers and engineers who are certainly the equals of their French equivalents.

3. The evidence strongly suggests that we need to reexamine and re-evaluate the entire frame of reference by which we procure R&D for weapon systems, space systems and the like.

There are no patented formulas for correcting the present situation, but it does seem to be that we must reexamine our present frame of reference with a view to gradually evolving a new, more effective one.

A more reasonable frame of reference would be one that recognizes that:

(a) To work with advanced science and technology is to deal with a high degree of uncertainty. Technical uncertainties cannot be precluded by contractually specifying given techniques or activities.

You can't legislate away uncertainty through the contract mechanism, I think is the major point here.

(b) There is no substitute for managerial and engineering competence. In our procurement systems, we can develop means of recognizing competence and we can develop ways to reward competence. Incompetence cannot be eliminated by contractually specifying given techniques or activities.

(c) There is nothing naturally good or desirable in the massive application of our technical intellectual resources to given technical objectives. In fact, it seems likely that a far more sparing use of these resources will raise the probability of our success and make more resources available for other national tasks.

Thank you.

(Mr. Shapero's article follows:)

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LIFE STYLES OF ENGINEERING

ALBERT SHAPERO, Professor of Management, Graduate School of Business, University of Texas

One look at a plane and you can usually tell where it was designed. There are almost as many approaches to design as there are national aerospace industries. The U.S., which often overloads its projects with engineers, could learn from the Europeans, who have a lot fewer cooks stirring the broth.

The laws of physics are the same in Los Angeles and Peking, and the principles of aerodynamics, electronics, structural design and fluidics know no political or cultural boundaries. No such immutability, however, applies to engineering practice. It is usually possible to tell the nationality of a vehicle by its appearance and the details of its construction. A comparison of the behind-the-wing inlets on our F-111 and F-14 with those of the MiG-23 Foxbat, the Flogger, Saab's J37 and the Mirage 3G, for instance, clearly shows different attitudes toward reducing drag at the cost of stability and toward the use of tricky geometries based on extensive analysis.

Taken together, such national differences amount to far more than an interesting social phenomenon. Practices of engineering and management have a bearing on costs, lead times, usefulness of the product and ultimately on international sales.

Building the national profiles

It is not easy to find criteria by which to compare national industrial styles. Comparisons of work plans and organization charts, for example, aren't much help, for so much of management thinking in the U.S. now revolves around them. It is possible, however, to build up distinctive national profiles from such characteristics:

- Project manning and the role of the project leader.
- The use of analysis and the willingness to take design risks.
- Reliability methodology, documentation and test practices, and maintenance provisions.
- The respective roles of scientists and engineers.

If, with some reservations, we use the number of technical professionals in a typical aerospace program as a quantifiable dimension, then the U.S. and USSR are near one end of the scale, constituting the countries of "massive engineering," and France is near the other end. It may well startle one of the 439 Lockheed engineers, say, who worked on the P3A Orion modification of the Electra, to learn that in Holland the very successful Fokker Friendship airliner was developed from scratch by a team of 50 engineers, supported by 200 draftsmen, technicians and craftsmen. Or that the French Mirage 3 fighter required 55 engineers, 50 draftsmen and 95 craftsmen to get from contract award to first flight in 13 months. It's doubtful if today any U.S. company could prepare a proposal for such a plane without a staff larger than that.

With the typical French or German project team varying from 5 to 50 engineers on an aircraft project and from 3 to 10 on an electronic project, development costs in these countries naturally are considerably lower than in the U.S. Typical European lead times also are somewhat shorter than ours — 1-1½ years as against 2½-3½ years.

Western European countries, just like the U.S. and USSR, use the project organization for aircraft development. There as much as here, the project leader is in charge of the project, having been given schedules, budgets and the specifications of the plane that is to be developed. Then the parallel begins to break down.

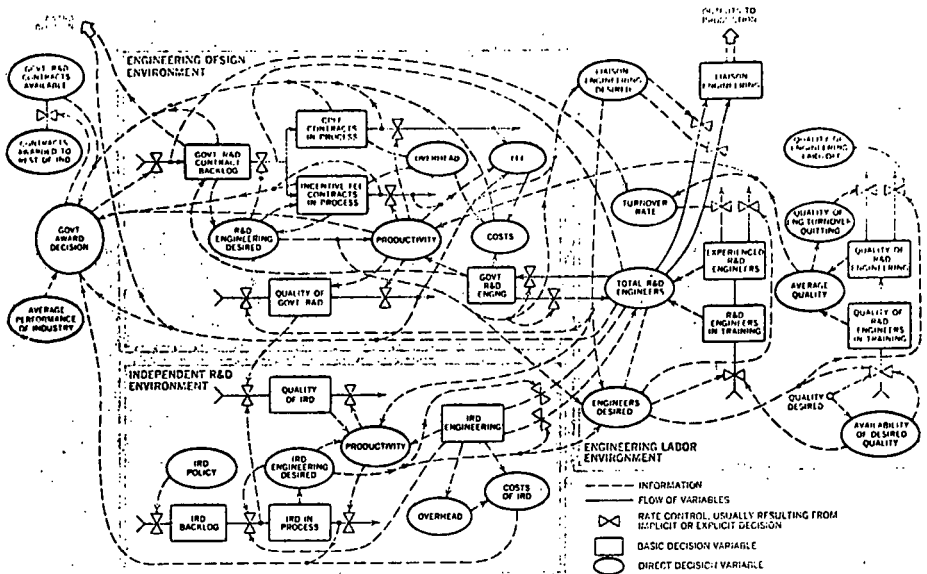
The Russian chief designer or the French project leader is expected to stay within budgets and schedules. Funding increases, which remain the prerogative of top management, are much rarer than in U.S. practice, and are certainly not taken for granted. The project leader who overruns or fails to meet schedules can expect demotion. On the other hand, project teams whose designs exceed the specs or who cut expected costs and schedules can expect to be directly rewarded.

In Russia, where strict and confining allocations of equipment, raw materials, data and other resources are a basic fact of industrial life, this carrot-and-stick atmosphere of engineering has led to the appearance of the *tolkach* (pusher). No design bureau or plant functions long without these super-expeditors, who cut across channels to save schedules, budgets, programs and sometimes the careers of their bosses.

Unlike ours, the French or Soviet project leader is first and foremost a designer and spends by far most of his time doing actual design work. Success or failure is attributed to him by his management and by the general technical public.

Weeding out management chores

The European project leader is able to concentrate on technical work because he has to handle fewer management chores than his American counterpart. In the European countries, with their relatively small reserves of technical manpower, most administrative matters for an aerospace project are handled by an administrator attached to the project team. At the French firm of Dassault, for example, the director of administration maintains a staff of seven men for this purpose. There is also a central management control group consisting of an administrator, three draftsmen and a few clerks who maintain a looseleaf notebook on each project. The notebook contains a brief summary of milestones, hand-drawn plots of expenditures vs time, and a control curve of estimated expenditures vs time drawn before the beginning of the project. Updating takes the form of weekly verbal reports from the project manager and



Even this simplified adaptation of T. Miller's model of a modern major industrial environment in the U.S. (taken from an A. D. Little report) shows organic complexity arising from our assemblage of highly interactive decision elements. In a European analogy, removing the variables indicated in gray, such as our high turnover rate and alternate contract paths, greatly simplifies things for government and industry alike. Further, almost all independent research and development done in companies here is done in government laboratories in Europe.

the administrator assigned to the project.

In the typical French or British aerospace company, there is a chief designer, who maintains tight control over all designs in progress. On his staff, he has a chief aerodynamicist and section chiefs for electric systems, hydraulics, and so on, and each of these in turn has perhaps a couple of dozen engineers working for him.

In such a company, the project engineer for something like the control system of a new tail will scheme out the initial design himself in a couple of months. Then he will sit down with the project leader for the plane and the chief stress analyst to look for weak points in his design. For the subsequent detail design, 3-6 draftsmen and a stress analyst suffice. Finally, before the design is committed to manufacture, the chief designer will spend half a day reviewing the design at the project leader's board.

In the U.S., this scene probably could not be duplicated for the simple reason that the project leader would have a conference table instead of a drafting board. In our aerospace engineering offices, desks outnumber the boards by about 20:1—just the reverse of the European ratio.

The Soviets, too, use chief designers, each of

whom is in charge of a "development design office," which is usually in Moscow. To some extent, these men carry management responsibilities, and each in fact has administrative as well as technical assistants. He does not, however, have to worry about day-to-day manufacturing problems, for his bureau produces only prototypes. Series production is handled by factories scattered around the country.

Liaison with these factories naturally provides plenty of opportunity for bureaucratic empire-building. Within the Moscow design offices, there often exist, in fact, miniature versions of the factory administration structure. Still, the ostensible purpose of such organizational proliferation is to free the chief designer for the design work that is supposed to be his principal job.

In Europe, the promotion route for an ambitious engineer is a technical one. In this country, any promotion beyond the middle level of engineering almost always is a promotion out of engineering. The American project leader typically spends most of his time managing, and it is hard to think of him as primarily a designer.

This brings up an interesting question: Who are the designers of our aircraft and spacecraft? We

once identified major designs with men like Jack Northrop and Bill Short, just as we still identify foreign designs with a Tupolev or a Sukhoi or a Dassault. But now we know the designers of at best a handful of today's vehicles.

One of the reasons why aerospace engineering has become faceless in this country is that so many of its practitioners no longer aspire to put their stamp on a design. Management having become the norm for the more prestigious and better-paid positions, it has also become the ambition of the American engineer.

In a recent study of "interspecialty mobility," run by Stanford Research Institute (SRI), 70 of 234 aerospace engineers declared that they prefer "management only" to "technical only" positions. Moreover, this preference was much more pronounced among the respondents with more than five years' engineering experience—ample proof of the reinforcing effect of the general trend toward management as a professional goal.

Greater prestige for the engineer

Engineering is a more prestigious career in Europe and the USSR than in this country. To a large extent, the general respect accorded to engineers on the other side of the Atlantic is the reward for scaling educational barriers more difficult than those facing an American engineering student.

In the USSR, a very few top graduates of the technical high schools (which are really more like trade schools) go on immediately to an engineering institute (VTUZ). The ordinary future engineering student instead must work in industry for a period varying from 16 months to three years before qualifying for full-time study at a VTUZ; if he wants to get to the VTUZ as quickly as possible, he has the option of going to night school for a year, spending 12 hours a week in class while employed in industry. After three years of daytime study at VTUZ, he returns to industry for six months, and finally he goes back to school for half a year to write his thesis.

In France, the high repute of engineering stems from the fact that it represents one of the professions that offer any middle-class boy the opportunity to climb to the normally unattainable top layer of French society—provided he is smart enough and works hard enough to get into one of the *grandes ecoles*, probably the most academically selective and competitive college-levels schools in the world, and provided he graduates with an outstanding scholastic record.

The European country in which an engineering education confers the least prestige probably is

Britain. Traditionally, the middle-level aerospace engineer in Britain is the product of 5-6 years of night school, which he'll have attended while working in a plant. University graduates overwhelmingly come from the upper levels of society and, if they go into industry, usually fill managerial rather than technical positions. Lacking the old school tie, few engineers have much of a chance of ever breaking into their ranks.

The British aerospace engineer also is different from his Continental counterparts in his relatively meager training in analytic subjects—a situation that leads to a good deal of trimming and padding during the development of most British aerospace vehicles. On the other side of the channel, instruction in analytic subjects is excellent, as is everything else in the engineering curriculum. The student is taught, however, to look on design as an inventive rather than analytic process.

This is quite different from the heavily analytic orientation acquired by the students even at the better engineering schools in this country. Nowadays, when a recent, or not so recent, American engineering graduate is told to design a shock absorber for something like a missile, it is not uncommon for him to come back with a 30-page report full of computer-generated response data but no drawing of a shock absorber.

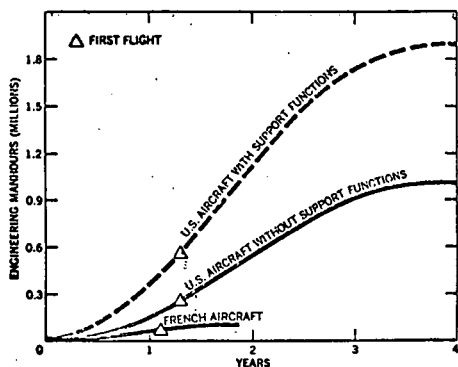
Other differences in engineering style—especially in the volume of documentation and the size of project teams—to a large extent can be traced to the differences among the supporting personnel with whom engineers work.

More design for the draftsman

French draftsmen, for example, get an education comparable to a considerable fraction of the American undergraduate engineering curriculum and have semi-professional status. Neither in France nor in England is there a position corresponding precisely to that of the draftsman at, say, Douglas. The European draftsman is more like a Douglas designer with two years of college, and he does a good deal of design detail at a standup drawing board.

A technician in the French or German aerospace industry also is apt to be more highly qualified than his counterpart in the U.S. The product of a rigorous apprenticeship, he is a first-rate craftsman—roughly on the order of our old A&E mechanic—who can work very satisfactorily from verbal instructions and rough sketches. This ability and his company's reliance on it are important to the style of engineering work in Europe.

The Soviet Union for some time has been making



In comparing R&D manpower for two current French and U.S. air superiority aircraft, the figures, based on projections to date, must be adjusted to exclude from the U.S. effort those elements without French counterparts. The upper curve includes support functions peculiar to U.S. practice (wind tunnel and flight test, ground support equipment, liaison, maintenance, reliability, handbooks, etc.). The middle curve reflects an adjustment of the U.S. effort to include such items. The estimate curve for the French fighter, less than 150,000 manhours, is derived from data showing that the project team never used more than 26 engineers and took 13 months to reach first flight, plus a comparison with manpower curves for a bomber, built by the same company, that took 305,000 manhours.

a major effort to replace its old-type A&E types with technicians educated to or beyond the level provided by an RCA Institute or some similar training school. As a graduate of a technical high school, today's Soviet aerospace technician will have had at least 90 hr of calculus; if he trained for a field like electronics or aeronautics, he will also have taken Fourier equations, vectors, and variable differential equations. Being on an accepted path to a government-subsidized engineering diploma, moreover, he will be encouraged to upgrade himself professionally.

A European aerospace engineer not only works with better-qualified supporting personnel, he also has the advantage of greater familiarity with his specific working environment, which is very probably the only one he has ever known. There is very little intercompany mobility in Europe, and the typical engineer there today is still working for the company that gave him his first job, no matter how long ago.

This aspect of aerospace engineering in Europe often seems incredible to U.S. aerospace engineers, only one-fourth of whom stay at the company with which they started and another fourth of whom change jobs five times or more. Considering that the lifetime earnings of the American engineer who remains with the same aerospace company throughout his career hardly differ from those of his peers who have switched jobs again and again, it is obvi-

ous that high job mobility is a matter of little concern here. On the contrary, experience with other companies often seems to be considered a valuable asset.

In Europe more than one move between companies is considered a mark of professional incompetence. The only truly accepted form of mobility is the switch from the upper civil service or the military to a high-level job in industry.

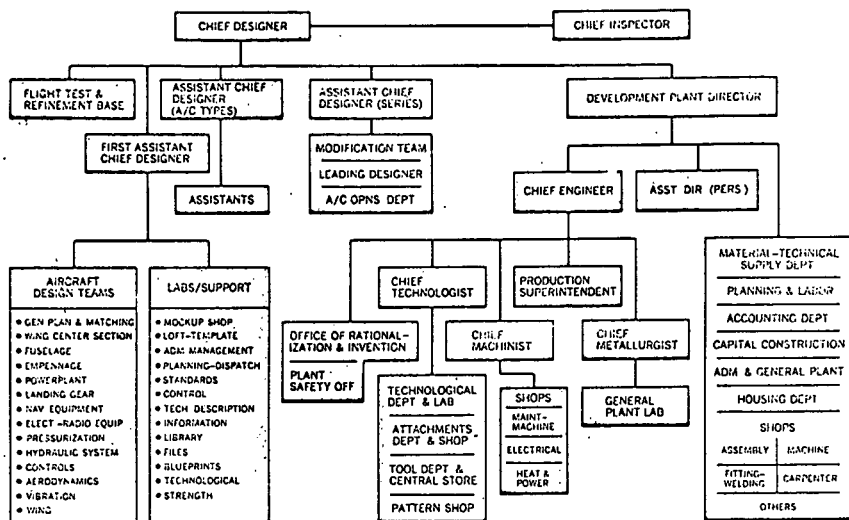
The lack of job mobility in Europe means that the engineers at companies like Fokker and Sud Aviation have worked together for all or most of their working lives: When a good design team takes shape at such a company, it remains intact for years and can grow into what a team really should be: a group in which everybody is always fully familiar with all the important aspects of the work in hand, and therefore a group that needs little in the way of formal communications, can cut the paperwork to a minimum, and gets along with few expeditors, coordinators and planners. There is even a noticeable physical difference between such a team and its counterpart in the U.S., for its design area will be quieter and less cluttered, and there will be very few electronic or electric calculators. (The European design team does have access, however, to a computer center, where each engineer does his own computing.)

In the U.S., a good project team almost never remains intact. Its members are highly regarded and are therefore promptly promoted to some higher position in the constantly changing job structures of our large and highly mobile aerospace companies. And if the team members are not diffused within their own company, they are likely to be grabbed by other firms (with the government usually picking up the tab for interviewing, moving, and salary increases).

Team integrity problems

As aerospace engineering suffers in the U.S. because good project teams are hard to keep together, so does it suffer in Europe because poor teams are hard to break up, simply because shifting a man to a new position is so widely interpreted as a demotion. It is indicative of the considerable similarity between this country and the USSR that the Soviets don't have this problem. When the authorities there didn't like what was coming out of Sukhoi's design bureau in the mid-'50s, they disbanded it.

The general disapproval of frequent job changes in Europe naturally has its effect on the behavior of the engineers, too. They find it much harder to challenge their boss than do their counterparts in the U.S. To them, the boss is just about the only source of promotion and also the source of references that are taken very seriously by the bosses in any other company. Thus arises the paradoxical situation that French aerospace engineers, for example, are adventurous in their designs but will take few chances



The typical OKB (design bureau) in the Soviet Union mainly consists of a design office, a prototype production unit and a flight test and elaboration unit. Purchaser or internally generated "technical assignments," including specifications, engine data, etc., are first schematically designed by the chief designer. Design teams then produce a preliminary layout for his approval, and the shop builds a mockup for approval by a mockup commission. The chief designer is freed from administration by assistant chief-designers, but he retains control of prototype construction and liaison through transfer of documentation to "series-production enterprise" (production plants).

indeed in organizational or financial matters.

The immobility of European aerospace personnel and the reliance on individual skills not only shape the style of work within a company but also the attitudes toward the support items and procedures used by the customer, including manuals and equipment for testing and maintenance. European aerospace manufacturers expect that their products will be maintained by, or at least under the supervision of, technicians on the level of an experienced A&E, who is fully competent to deal with new equipment once he has familiarized himself with it.

This attitude obviously works only if a core group of highly skilled technicians is available in the field. Although some people in the air forces of Western Europe have begun to ask for more and better documentation, these prime customers of Europe's aerospace companies do not seem to feel any great concern about their ability to develop and retain such high-level personnel — not even when they must operate with low ratios of regulars to conscripts.

When the typical European assumptions about aerospace field support are applied to a different technical culture, even a very sophisticated one, the results can be disastrous, no matter how competent the parties on the two sides of the interface. It's difficult, for example, to fault the French design team that developed the Alouette helicopter. It consisted of a chief engineer, his assistant and four

design engineers (who were in charge, respectively, of the rotor blades, structures, the gear box and the electric system). With the aid of 14 draftsmen and 47 craftsmen, they got the copter into the air in 14 months. The Alouette has been a success ever since, with one exception: When an American company tried to produce and market the copter, one of the first models it sold literally came apart in flight. In the postmortem on this accident (which ended the American effort), French engineers decided that the trouble was caused by differences not in design but in field engineering.

Squadron-by-squadron maintenance

Most European aerospace companies do provide handbooks, and there are even some French ones. These, however, have the reputation of being extremely limited and almost always in need of extensive additions by the user. To a large extent, the explanation lies in the French air force's approach to maintenance, which calls for each squadron to develop its own maintenance aids. A similar practice is followed by the RAF.

Officials in French aerospace firms say it would be pointless for them to develop maintenance procedures, for the military would merely change them. They also do not provide formal factory training courses. European users, both inside and outside the country of manufacture, send small crews of

skilled technicians to the factory to familiarize themselves with the new equipment. On their return, these men develop training material and courses, as well as maintenance instructions, and form the cadre that first receives the incoming new equipment.

The European aerospace industry's customer air forces can themselves tackle the job of developing maintenance procedures and procuring the necessary equipment because their labor costs are relatively low — from \$300 to a little less than \$200 per year, depending on whether an airman is a draftee or a regular. Maintenance labor accounts for not quite 1.5 percent of the five-year cost of a typical French avionics system, so that even if it quadruples, total cost is raised only by about 6 percent.

It is also typical of aerospace maintenance abroad that the manufacturers provide little in the way of system-unique test equipment and that the users feel little need for such gear.

Just as the styles of engineering differ here and in Europe, so do the styles of contracting. In France as much as in this country, the process of getting a contract from the government starts with paper design studies prepared by the competitors at no cost to the customer. After evaluation of these studies, development contracts may go to more than one company, especially in the case of electronic systems that don't involve as much money as does an entire vehicle. As in the rest of Western Europe, the contract, whether for development or production, usually has some incentive features, but in the American scheme of things it would still be considered a fixed-type contract.

The contract itself is very different from the kind of thing the U.S. aerospace industry is familiar with. For a major French aircraft, the development contract typically is a document of fewer than 50 pages, of which 30-35 are taken up by a work statement specifying performance in terms of range, speed, weight, service ceiling, and so on. These requirements are referenced to a set of general specs, collected in a handful of publications for which about a 2-ft shelf is needed.

Curbing the paperwork

European contracts and specifications do not include extensive plans and do not concern themselves with maintainability, human engineering, and the like. Nor do they prescribe managerial practices like configuration management, value engineering, or PERT.

The detailed specifications of European planes are not written until after the flight tests. They therefore describe the achievable aircraft rather than a desired one. In this country, the military services really end up with a similar as-is spec, after all the exceptions and deviations requested by the manufacturer have been bought off by them, but the route to the final spec is much more devious. In Europe, much less time and man-power are expended on documenta-

tion of, and objections to, mismatches between the design in progress and the contractual requirements or on the justification of engineering changes.

This point was made several years ago by the Aerospace Industries Assn. (AIA) in a study of government-contractor relations, which attributed much of the differences in project team size between the U.S. and Europe to the differences in contracting procedures. The study found that the fastest-growing segment of our aerospace work force consists of the administrative professionals who oversee not so much what is done as how it's done.

Big Brother and the civil servants

Oddly enough, this is a characteristic our aerospace industry shares with the Soviets'. In the USSR, it is largely the traditional emphasis on centralized planning and management administration that accounts for the prevalence of overseers. In this country, on the other hand, the same phenomenon goes back to something entirely different: the role of the civil servant. Probably more than anything else, the lesser stature of the American government employee, in comparison with that of his European counterpart, explains the difference between the life styles of engineering here and in Europe.

The European civil servant who lets an aerospace contract and his colleague who monitors the contract are members of the technocratic elite of their country. Often, they did better in high school and college than the managers and engineers in industry with whom they deal. Neither in France nor in Britain nor in Germany is the upper-level civil servant called upon to justify his every action to the extent that has become quite natural to his counterpart in the U.S.

It is unheard of for a member of Parliament, for example, to question a contract on such technical points as the choice of the wing design or of an advanced material. Consequently, the contractor in turn is not pressured to produce documentation in support of his detail design decisions.

In this country, our view of the civil servant is at best darkly suspicious. We are much more acutely aware of the historical reasons for demanding that he tell us why he thought a given project necessary in the first place, how he let the project, how he managed it, how he made sure the contractor wouldn't cheat, and how he made sure he spent as little money as possible. Our government agencies in turn nervously demand corresponding assurances from their contractors and attempt to legislate honesty and good management into programs by way of the contract.

Greater emphasis on analysis

The emphasis on critical review is not limited to administration but has spilled over into engineering, where it has greatly inflated the importance of analysis and testing. U.S. aerospace practice per-

vasively stresses analysis, beginning with the specification process even before a project is opened for competition.

The leaning toward analysis has become an ingrained feature of DOD and NASA contracting practice. The first contracts on any project in fact call for essentially analytic work; their output is not a design but a description of how to produce a design. The emphasis on analysis then continues throughout the development cycle, leading to seemingly endless requirements for inspections, progress reports, and documentation, as well as detailed specification of the analytic, pseudo-analytic, and procedural methods to be used, the results to be obtained, and the computer printouts that must be made available.

In Europe, analysis plays a radically different role in aerospace development. A French project team, for example, will provide its customer with a *dossier calcul*, but only after its design is completed and often not until the analysis has flown.

The emphasis on design naturally has a major effect on staffing in the U.S. aerospace industry. A recent manpower survey by AIA of a typical U.S. airframe manufacturer showed that some 2000 of the company's 8000 technical professionals were engaged in analysis and only 2800 in design work in the European sense of the word.

What the European aerospace engineer thinks of the American approach shows up clearly in the typical comment of French engineers that Americans analyze because they are afraid to fail. Our heavy use of analysis enables us to optimize within the known, but it also locks our designs into the known.

The Europeans treat aircraft development as a design effort in the most creative sense. This approach leads them into taking design risks, and they do have occasional spectacular failures (like Dassault's Etendard 4 fighter for the French navy). They also manage, however, to lower the risks they run by extrapolating from past experience and by relying on incremental improvements and tried and proven components wherever they can.

One of the results of this hedging of bets is that European aerospace companies test less than do ours. Some components in the Mirages, for example, have never been tested. Nevertheless, surveys of users have not turned up any great concern about the overall failure rates of French aerospace hardware.

Another key feature of national industrial styles is the role of the scientist. Unlike aerospace companies in this country, the European ones have very few or no scientists on their payrolls. Scientific research is left to government agencies like the Royal Aircraft Establishment (RAE) in Britain and the Office National des Etudes et Recherches Aérospatiales (ONERA) in France.

The failure to go in heavily for analysis and research does not mean that European aerospace companies lack technical sophistication. Their engineers

make good use of research reports from all over the world, including NASA's. The average European aerospace engineer in fact seems more conversant with NASA's work than his counterpart in the U.S.

Another difference is that the small European project team is so heavily oriented toward design and development that it looks upon research as essentially grist for its mill and virtually never as something it might produce. There is almost no analog to the research contract that an agency like the Air Force might award to a company like McDonnell for a study of new applications of beryllium or some composite material.

Who works for whom?

National differences in the relationship between industry and research institutions become most readily apparent if one asks, Who works for whom? In the USSR, organizations such as the Central Institute for Aircraft Engines (TsIAM), the renowned Aerodynamics and Hydrodynamics Institute (TsAGI), VIAM, which works on aircraft materials, and LII, a flight test group, do much of their work on contract to industry. Similarly, the professors and instructors at the VTUZY are encouraged to supplement their incomes, by as much as 50 percent, with fees from research contracts, many of them from industry.

In Britain, the research institute itself decides what research is to be done and then may pay industry for doing it. Most of the actual work, though, is performed at the research institute, which is likely to have the necessary facilities even if it does not have the people to use them. In such a situation, a small group of engineers from industry might move to an agency like RAE for a year or two to run a study on something like strength factors in joint design.

In this country, aerospace companies develop their own scientific expertise (under government contract whenever they can get one) and then transfer it to the realm of engineering and they also include scientists in their design teams. This policy cannot fail to increase the man-hours needed to complete a design project. It's not much of an oversimplification to say that the scientific approach is essentially conservative and analytical and demands proof before something new is done. Engineering design, on the other hand, is a matter of extrapolation of invention followed by pragmatic test. When hardware is being developed, the use of scientists as engineers must entail more analysis, more testing, less cut-and-try, and more detail work than is done in engineering by engineers.

It jes' keeps growing

All the major characteristics of our engineering style in this country are constantly becoming more pronounced, for they are regenerative and self-reinforcing, and taken together represent a process of organic growth. An increase in organizational ele-

ments inevitably means an increase in communications channels, when there are more communications channels, more people are needed to man them, and so on and on.

Moreover, such tendencies of style very rapidly harden into institutions, and the institutions then become part of the law of the land. No European aerospace company could function under our ASPRs.

Because of politics and the often different product orientations of the aerospace industries on the two sides of the Atlantic, there have been few occasions on which the products of our style of aerospace engineering and management and the Europeans' have truly competed with each other. On these occasions, though, the Europeans have not done badly. The Fokker Friendship and the Mystère 20 business jet, for example, have cracked the U.S. market, besides competing successfully abroad.

In the military market, too, the Europeans have at times beaten out our designs. When the Northrop

F-5 and Mirage 5 were engaged in a fierce competition for a contract from the Belgian air force, it was the French who walked away with the \$130 million order.

An officer of the Israeli air force recently told me, when I had asked him whether he would rather fly American or French fighters, "For what they cost to buy and operate, the French aircraft are attractive, very attractive. And they do shoot down Russian planes." The Israelis, it is true, would like to get more thoroughly tested hardware, more reliability data, and more handbooks than the French provide. And a glance into a French fighter's cockpit is enough to convince anyone that French planes could use more human engineering. Still, they are adequate. Our planes are gilded, as are the organizations that produce them. Somewhere in between there is an optimum. It's worth seeking. ■

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Chairman PROXMIRE. Thank you, Mr. Shapero.

Mr. Scherer, I am interested in your discussion of the systems analysis office in defense decisionmaking.

I had long been under the impression that it has been the systems analysis office which has held out the greatest hope for efficiency and cost reduction in weapons systems decision. Would you agree with me that in consideration of technical efficiency and cost reduction the systems analysis office has played a major role?

Mr. SCHERER. I think they have helped, Senator. I think they have done a pretty good job. As I point out in my statement, however, there are a number of inherent problems which prevent them from doing a completely satisfactory job. First of all, they are far removed from the original sources of information.

Second, there are severe barriers to their obtaining some of the kinds of information they need to evaluate technical proposals.

And third, this is a very hard thing to describe, but there is a certain selection bias that puts in this shop people with certain attitudes who don't look at a program from a balanced point of view.

There are several aspects. I am not sure you want me to elaborate. But they tend to look at programs, for example, from strictly the U.S. point of view, not thinking that the effect of our decisions may be to evoke a reaction on the part of other nations.

For example, if we make a decision and the Soviet Union makes a counteracting decision, we may end up having spent several billion dollars and be no more secure at all. Very frequently this type of consideration isn't introduced at all in the office of systems analysis. And this I find very troubling indeed.

Chairman PROXMIRE. I think it is on that point that there is the more serious question about systems analysis, the tendency of economists in that office, and especially those holding the top job, to accept unquestionably the assumption regarding appropriate defense strategy, defense posture, and in your words, the orthodoxy of the cold war. In your judgment has this bias led us to the purchase of weapons systems which were in fact not required?

Mr. SCHERER. I am not sure whether that alone has done it. It has—

Chairman PROXMIRE. Let me ask you this. Can you give us any examples of weapons systems which were not scrutinized by the systems analysis office with the openmindedness and comprehensiveness that they should be?

Mr. SCHERER. The ABM is an excellent example. I am told by a former member of the staff that in the ABM program for roughly 18 months, prior to 1969, they operated under guidelines which said that in their analyses they were not to consider the reactions of the Soviet Union and the Chinese to our ABM deployment decisions. Now, this is the very essence of the ABM problem how the Soviets and Chinese react. To analyze a program and leave that out of the analysis is to guarantee a faulty decision.

I might note something else—again, this is hearsay evidence which I am sure could be ruled immaterial, irrelevant, and so forth—but another friend on the staff told me that when the Safeguard decision

was taken the director of the systems analysis staff called his men together and said, "Well, OK, now we have made a decision, we are all enthusiastic about ABM, aren't we?"

And he was greeted by sullen silence, because they were not enthusiastic unanimously about the Safeguard ABM program. But once the decision has been taken, everyone has to be quiet and support the system.

So all the uncertainties disappear from the statements that emanate from the Pentagon.

Chairman PROXMIRE. What kind of changes would you suggest be made in the systems analysis in the office of the Pentagon so that the Defense Secretary could get the kind of counsel that he needs in order to undertake wise defense policies?

Mr. SCHERER. I am not sure it is possible to make changes from that vantage point which would solve the problem.

Chairman PROXMIRE. Would you expect to get the same kind of viewpoint, though, in the congressional approach which you suggested?

Mr. SCHERER. That might be, except that the Defense Department, while it wants to make good decisions, once it has made decisions it must be an advocate. And so therefore it has to take certain actions which protect its flanks when it has made a decision. And this aspect simply can't be removed organizationally from that context.

On the other hand, Congress is independent, and Congress has to make in its appropriations votes an independent decision on these programs. If a congressional staff were to look at these issues anew and bring out the uncertainties that the Defense Department has not chosen to reveal, then Congress would be able to make better informed decisions.

Chairman PROXMIRE. Wouldn't it also be wise, though, to try to build in some kind of a capability on the part of the Secretary of Defense to challenge the Joint Chiefs of Staff or challenge the individual services when they come up with their proposals?

Mr. SCHERER. I am sure the Joint Chiefs will tell you that the Office of Systems Analysis has indeed done that. The Joint Chiefs—

Chairman PROXMIRE. You feel that it is not very helpful to expect that we can do this on a long-term basis in the Defense Department itself?

Mr. SCHERER. Let me say this. I think the Office of Systems Analysis has done a lot better job during the last 8 years than had ever been done in the past. All I am saying is that there are inherent problems that prevent it from being a completely satisfactory job. I might add that there is a natural tendency for organizations to decay, and so the future prognosis for the OSD Systems Analysis staff is not terribly hopeful. Charles Hitch, the first head of the office, was a well-known and competent economist, and was able to bring in with him some very fine people. But during the past few years one has noted a decline in the quality of the staff, and also a change in the kind of people making up the staff.

I honestly don't know how you can correct this. This is the kind of life cycle through which all organizations go. And it is not at all easy to do anything which will alter it.

Chairman PROXMIRE. I hope with your competence and the amount of study you have given this, and your knowledge of it, that you can give us some more hopeful proposal for providing a change here, because I think we have to have it in the Defense Department itself as well as in the Congress.

Mr. SHAPERO. I would like to compliment you very warmly on your paper. This is the first time this has come to my attention. And I think many Members of the Congress are going to be extremely interested in the comparisons you make between what seems to be a gold plating, a gilding of the engineering process, the research process, the design work here, as compared to France, for example, where you say they can do their R. & D. far more inexpensively and probably just about as efficiently, maybe more so.

You see, what has been brought to our attention by Senator Symington is, somehow in the military—and it seems even to extend to and permeate defense contractors—there is an emphasis on effectiveness rather than efficiency. At the same time I think they have been impressed most by what I have discovered in the last 6 or 8 months about the almost total lack of effectiveness as well as efficiency. In other words, you would think that if they provided this enormous number of engineers and designers and all the others that go into the research on these weapons they would be way out in front, they would be very efficient, they would perform very well. But they don't. The Stubbings study indicated that in the 1960's we procured 11 major electronic weapons systems, and only two have been able to meet their specification standards, and six met less than 25 percent of their specification standards.

Now, if it were your job to streamline and make more efficient the aerospace industry, and especially the R. & D. component of it, what steps would you undertake first to make the process more efficient?

Mr. SHAPERO. I wish I had some simple formula, but I don't. I point out in my testimony that I think we need a gradual approach, because I am a great believer in avoiding the transplant and rejection problem. I want to be effective, not dramatic.

I think the important thing is to start to work toward some far greater degree of disengagement between the Government contract monitor and the internal management of companies. I may sound like almost an economic primitive in this regard. The point is, we have tried more and more to manage and to control in detail the way things are done, and this hasn't worked.

On the other hand, we have had many examples in the United States of very efficient development. We had the Kelly Johnson "skunk works" that developed the U-2. He had to practically hide out from his own company and the Government in the desert to do an efficient and effective job. We had bootleg projects like the Sidewinder developed by a small group of technical people under the direction of Dr. McLean hiding away from their own service in the desert.

This experience points out our inherent capabilities, and it suggests that somewhere along the line we are going to have to change the whole way we go about procuring R. & D., not the detail. In a sense

it suggests we should reward the competent and not reward incompetency in organizations by trying to patch up their management and engineering. We have to recognize the variables that are important in R. & D. management.

What I am saying is not a new thing. As self interested an organization as the Aerospace Industries Association, which had Stanford Research Institute do a study in 1962, spoke similarly of disengagement.

I am afraid this doesn't answer your question as neatly as might be desired, but it does raise the question of a whole host of experiments leading to a change in our procurement practices. I see no reason why we don't try low-cost, low-risk experiments in starting to give contracts on a different basis than we have in the past at the less critical levels.

You know the contract mechanism is practically hallowed in American tradition and so are the associated military procurement problems. We had a large overrun on the first contract that Eli Whitney received for the manufacture of muskets. He was several years late and several times overrun on that first contract for muskets that established our arms industry.

The fact is that we don't seem to have learned much about how to improve the process in the intervening 150 years. We have people today who think they are going to improve the process by repeating the same kinds of efforts. They think that we will get in there and make sure that the contractors use good planning techniques and the like, and in the end we have more people doing planning, monitoring, testing, justifying, and analyzing than we have designing.

I want to make one more point which is perhaps a more subtle point and which comes back to your question of Professor Scherer. We Americans are in love with analysis. We think that by its use we are going to avoid uncertainty. We think we are going to find some magic, patented approach to new design solutions through the use of analysis. French engineers pointed this out to me. They said, "You Americans are mad. You analyze and analyze where we have one man who makes a decision, and the difference is 5 percent in the resulting answers."

I think the French engineers have a point. You can analyze the known, but you will never come up with a new design through analysis. Analysis can be used to test a design post facto, but you are not going to be able to use analysis to avoid the drudgery of making decisions based on competent engineering or managerial judgment. We have tried to avoid this fact, and there has been a lot of past testimony with regard to the large number of cubic feet of analysis associated with each project, successful and unsuccessful.

Chairman PROXMIRE. My time is up. I just observe, from what you say it sounds as if smaller units which could be competitive should have a far greater opportunity than the Defense Department so far has been willing to give them. We have found that 90 percent of our procurement is nonadvertised competitive bidding.

Senator JORDAN?

Senator JORDAN. Thank you, Mr. Chairman.

First, Mr. Scherer, in your statement you say that—

There is a common belief at the intermediate levels of the military decision-making hierarchy that one should not rock the boat too vigorously through criticism at the start of a program.

The suggestion is that the “troubles can be pinpointed and corrected later when the program has its own momentum.”

And then later on you say that—

In interviews, Western Electric representatives acknowledged that their production engineering staff members knew early in the game that a field modification program would prove to be impractical, but that they had presented the highly optimistic field modification cost estimates because they were more “sellable” to the Army and Congress.

Are you suggesting a collusion here between the contractors and the procurement officers, Mr. Scherer, in keeping the estimates low on the initial discussions of these projects, and in fact in the establishment of prices for contracts.

Mr. SCHERER. Collusion, of course, Senator, has a legal meaning which I would not want to impute to these actions. It is simply a kind of esprit de corps which says that we do certain things in a certain way, we don't worry about costs early in the program. If one wanted to call that collusion, I suppose he might. I would call it calculated naivete, or something like that.

Senator JORDAN. That is one way of saying it.

In your opinion why would defense procurement officials allow themselves to be taken in by flagrantly low cost estimates and delivery time such as occurred in the Skybolt and the Nike Hercules in the 1950's, and that as a matter of fact no lesson appeared to have been learned from that early experience because the same procurement practices were carried forward in the F-111 and C5A.

Mr. SCHERER. Yes. There is a fundamental reason. And that is technological uncertainty. The military officers don't know with high confidence which programs are going to turn out and which ones will fail.

They may have some ideas, but they are not sure. At the same time they want to make sure they have got some programs coming along that do succeed. So they tend to support a whole stable of programs, letting each get going on its highly optimistic basis, and then if some work out, fine, they at least have their weapons system at the end. And, of course, there is some danger in not being optimistic.

Senator JORDAN. How else are new weapons systems to be developed if we do not have some kind of competition between various systems in order to find out which is the best? How can anyone wearing the stars of a general or admiral or any civilian in defense procurement know precisely what weapons system is going to be the best adopted to the needs of the future?

Mr. SCHERER. As Mr. Shapero has said, one cannot know which will be the best. But you see, what happens is that once you accept this initial assumption that one has to be optimistic at the start of the program, things rapidly get out of hand. As I said, everyone knew at the start of the Skybolt program that there were going to be real prob-

lems. And yet "the system" overrode commonsense. Everyone was committed to a certain way of doing things. And once the system got going it just kept rolling along and rolling along supporting the program. Had anyone looked at it hard they would have realized it was a bad decision.

I am not saying that one can make perfect decisions in the face of uncertainty. All I am saying is that a good, hard analytical look at these programs would eliminate the very bad programs. I can name a lot of histories where it was known right at the beginning by some people that the program was going to turn out to be a disaster.

Senator JORDAN. And you suggest as a part of the solution to the problem that Congress should have a sort of counter DoD staff to more carefully scrutinize all aspects of this procurement.

Mr. SCHERER. I think better decisions would be made if all the facts were on the table. Of course, there is a risk, and that is, when all the facts are on the table, a lot of them are going to look very uncertain. This is clearly the problem on the ABM, which is an extraordinarily difficult decision. As I said in my statement, on the ABM program there has been oversimplification of the issues on both sides of the argument. The opponents have tended to overlook some valuable aspects of the Safeguard program.

The advocates have tended to sweep under the table all the program's difficulties. I don't think good decisions can be made when you oversimplify. And in these major defense programs they are invariably going to be hard decisions.

But one should act with a balanced appraisal of the facts in hand if he is going to make these decisions.

Senator JORDAN. Thank you.

Mr. Shapero, you criticized the implementation of particular planning and evaluation techniques as complicating and increasing costs and defense procurement. Who has promoted the implementation of these techniques, and what were the circumstances and what is supposed to be the objective of that kind of procedure?

Mr. SHAPERO. The first point in my formal statement is that these are all well-meaning people. Sometimes these techniques start with well-intentioned Government officials, and sometime they start with the industrial contractors. They come from a variety of sources, non-profit institutes, universities—my university colleagues are particularly prone to being authorities without responsibility in many of these cases. For example in the case of the industrial contractors, someone will develop a technique that was good in the context of his company, and it was associated with a successful project. He sees this as a competitive advantage. He believes in it, and subsequently proposes it to the Government. The Government official says: "This did a wonderful job. It was associated with a successful contract." He then imposes it on others hoping to increase the number of successes.

The key point I am making is that the technique of specifying management details has not worked. We get as many failures as before and at higher cost. There are no "bad guys" in this process, although I grant that there is the occasional charlatan. We just have

a bunch of people trying very hard not to fail and to produce good systems. In the process they have created a procurement monster—and it is a monster.

Senator JORDAN. You have pointed out that Western European countries such as France have much smaller complements of staff people on their procurement assignments than we do, and yet their incidence of error apparently is smaller. How do you account for that?

Mr. SHAPERO. No, their incidence of error is not smaller, it is equal.

Senator JORDAN. Equally bad?

Mr. SHAPERO. They make good aircraft, and they have also had disasters. But they do it much more cheaply than we do. Spending much more money and trying all our techniques hasn't saved us from that. If so we might as well do it cheaper.

Senator JORDAN. You are suggesting that we would do no worse if we had fewer involved?

Mr. SHAPERO. That is right. I honestly believe that we would even do better, because it is difficult to adequately design anything with thousands of people. When we were in France a colleague of mine asked the French engineers, "How do you work with so few people?" The Frenchman threw up his hands and looked at us in amazement and replied, "How do you work with so many?"

Having been an engineer and manager in the missile industry, I know that it is hard to accomplish much with so many people. You begin to avoid people and the "system" and try to do things "boot-leg" in order to get the job done.

Senator JORDAN. How do you suggest that we reward the competent engineers and research men for their efficiency?

Mr. SHAPERO. Yes, and there are many ways to approach this. I don't advocate the French system, because as I pointed out in the article, it is based on a wholly different frame of reference. For example, they have very little mobility in their industry, and I wouldn't want to see us trade our American macro efficiency, our ability to move socially and economically, to gain the micro efficiency of a French plant.

However I think there are things that we can do to reward men. One is through assigning and recognizing responsibility. We don't even know who is responsible for the designing of the great majority of our large systems. If I asked you who designed the Atlas, the C-5A, the Titan II, who could tell me? Was it some vague corporate entity in league with many subcontractors, was it the Air Force project office or a nonprofit organization? There are very few systems that can be associated with a specific man or even with two or three specific men in our country. We don't have fixed responsibility.

I am trying to reach for some ways to suggest means for improvement. I think that for one thing beginning with smaller contracts that we need to fix more individual responsibility. When a man does a good job give him and his company more contracts, and when he does a bad job, don't. This sounds very simple, but it must be said because we have on occasion rewarded failures with more contracts.

Senator JORDAN. Thank you very much. That is a very fine statement.

Chairman PROXMIRE. Congressman Moorhead?

Representative MOORHEAD. Thank you, Mr. Chairman.

Your testimony has been most helpful.—I think what both of you gentlemen are saying is that we have a climate in the defense industry which is not healthy for the American taxpayer essentially.

Mr. SHAPERO. Or for the industry.

Representative MOORHEAD. Or for the industry. The phrase that I kept hearing in other hearings was, "maintain capability." In other words the Pentagon cannot afford to let a contractor lose money on a contract because it may jeopardize the economic well-being of a contractor which the Pentagon feels is not in the national interest because we may need the unique capabilities of that contractor to produce weapon systems some time in the future, which are critical to our national security. And that is what you are saying.

Mr. SHAPERO. I would like to comment on that. We did some studies for OSD at their instigation in the interest of trying to find out how to do the R. & D. job better. We raised this question of capability. When you say "capability" in terms of a company what do you mean? A company comes to the Government with a bid for the second version of a missile they have successfully developed, and they say, "Look, we did the first one successfully. This proves our capability." However, if you take a look in detail at the engineering manpower and its turnover you begin to wonder. Who did the first missile successfully? Was it the corporate name and the corporate office in Delaware, since none of the original team may be left?

In one project we were trying to find some man who had worked on the previous missile project upon which the company's current project was based. We asked if there was someone of that description who we could talk to. The project managers scratched their heads and thought and finally said, "Old Harry was on that other missile. I think he can tell you about it." Is that maintaining capability? It is not. With the mobility of the industry, one out of four men have had five plus jobs, and only one out of four is with his first company. The mobility is very high, and consequently company capability is not maintained. The country's capability is maintained, but it is not in any particular company at any particular time.

We could do something about this. We could recognize the existence of teams and reward successful teams, not corporate structures, but the actual existing team. We do everything to break up the team. By becoming successful a team becomes fair game for every other company. So the team is broken up because other companies hire them away. We don't reward teams that have accomplished something. We reward corporate abstractions that may or may not have retained the team that did the job.

Representative MOORHEAD. And you reward the corporations that have not been successful by giving them follow-on contracts when

Run A is unsuccessful, the only way you can help them out is to order Run B whether it is needed or not.

Mr. SHAPERO. This notion goes back to World War II, and the idea of the maintenance of the "arsenal of democracy." In the national sense, however, the people are here, floating from company to company. Single companies do not have named capabilities that is maintained over time.

Representative MOORHEAD. I think your story in your testimony, is a real procurement horror story. When we try to break into this—call it collusion—into this calculated sophisticated naivete, it says, when you have a RAND Corp. citing a Boeing or a North American, North American talks to the Air Force and somehow conveys its feeling of displeasure to its friends from the Air Force, who then raise the question of renewing the RAND contract.

Mr. SCHERER. It wasn't that, Mr. Moorhead. It was that there were a lot of generals in the Air Force who had dreams every night about flying at mach 3 in a B-70. And when suddenly the Rand Corp. began to shatter those dreams, they were very unhappy indeed. I cannot say that there is cause and effect here, that the RAND Corp. scuttling of the B-70 program led to the difficulties that RAND experienced in having its contract renewed.

All I know is that my friends in RAND assumed that there was such cause and effect. And if the assumption is there, one then tends to change his behavior.

Now, the people at RAND were highly motivated and able, and they were not about to become prisoners of the Air Force and say whatever the Air Force wanted.

So what did they do? What they did was to start diversifying like any good American corporation does when it begins having trouble with its principal customer.

They diversified into health, education and welfare; they took a contract with the Defense Secretary, and various other things. Nevertheless, there was this pressure—there is always this realization that one has to win the battles, but one has to tread warily at the same time. Mr. McNamara said, according to Arthur Schlesinger, "OK, we will let the Skybolt battle slide because we have got the B-70 and we have got the Minuteman program, and these are the ones I want to win with the Air Force, we will let them have their Skybolt and not create too much trouble there. And these pressures are constantly upon the decisionmakers.

Representative MOORHEAD. Mr. Scherer, you mentioned the orthodox way of approaching the ABM decision, and what you would call the unorthodox, thinking a little bit about the effect on the other fellow.

What would your analysis lead you to concerning continued testing and ultimate deployment of the MIRV?

Mr. SCHERER. I am terribly upset about it, and have been for 2 years. My hobby over the past few years, I have been out of the military analysis business, but my hobby has been the theory and history of arms races. And I feel that MIRV is going to lead the world into

the most unfettered arms race in history. If we do not take really serious steps to get this thing under control, there will be absolutely nothing we can do to control the arms race.

I don't want to get into the theory of arms races. We do have theories of when arms races are stable and when they are unstable, escalating forever. The MIRV situation happens to be a classic example of an unstable arms race. It is the kind of situation in which a given attack vehicle has the technical capability of taking out three or so defensive vehicles, so the defense always has to multiply its numbers in order to stay ahead of the potential attacker. But of course each side views itself as a defender.

So the Soviet Union feels threatened by our MIRV's, and we feel threatened by their MIRV's, and we are going to go on and on and proliferating these things unless we take very serious steps toward armaments control immediately. The policy point I would draw is that it is absolutely essential that we cease testing MIRV's until we have got together at Geneva and done something about controlling them.

I can't believe the Soviet Union isn't as worried as we are about it. Representative MOORHEAD. With the ABM at least we can have a reasonable check as to the degree of deployment?

Mr. SCHERER. It is also much less provocative than MIRV.

Representative MOORHEAD. The ABM, at least at first brush, is a defensive weapon, whereas MIRV is totally—

Mr. SCHERER. These divisions tend to blur. But the ABM program providing a light protective screen is not nearly the type of arms race stimulant that MIRV is.

Representative MOORHEAD. Thank you, Mr. Scherer.

Thank you, Mr. Chairman.

Chairman PROXMIRE. Gentlemen, I want to thank you for an excellent job. I think this final reference to MIRV is so important—this isn't precisely, as you know, the immediate concern of this committee, but I would agree wholeheartedly with your analysis that if we let this MIRV out of the bag we are off to an arms race the likes of which we have never seen that will make this a period of appalling danger for all mankind.

Both of you gentlemen made a most useful contribution.

Mr. Shapero, what you have told us has not been expressed before as vigorously or as broadly to Congress as it should have been. And I think you have opened our eyes. There is no question about it.

And Mr. Scherer, your presence has been most useful to us too.

Thank you both.

And I would like to ask both of you gentlemen to respond to a series of other questions we would like to ask for the record. We will give you those for answers when you correct your remarks.

(Questions from Chairman Proxmire and Mr. Scherer's answers, subsequently received follow:)

Question 1. Is the Skybolt experience fairly typical of complex weapons systems?

Answer. No weapons program is completely typical, but Skybolt is certainly not atypical. As many witnesses before the Subcommittee have testified, it is quite common for contractors to underestimate the technical difficulty and costs of a program. The magnitude of the cost overrun which accumulated, at least as of 1962, was also not unusual. If the Skybolt experience was different, it was so mainly on two dimensions: (1) in the cold deliberateness with which Douglas advanced its optimistic promises in response to Air Force pressures; and (2) in the subsequent international repercussions. Even on point (2), however, Skybolt was not unique. A similar history of "overselling" with adverse implications for our relations with allies occurred in connection with the F-104-G NATO fighter program. There may be other examples; I am not conversant enough with most recent programs to know.

The Skybolt debacle had three main harmful international repercussions: (1) laying the Macmillan government open to damaging political attack; (2) exacerbating President de Gaulle's annoyance over Great Britain's "special relations" with the United States and perhaps spurring him to announce that he would block British entry into the European Common Market (just three weeks after the Nassau meetings); and (3) by leading into the MLF plan, driving a wedge among NATO allies over the question of cooperative deterrent forces.

It is not yet clear what would have happened on British Common Market entry had there been no Skybolt incident. Arthur Schlesinger suggests that de Gaulle would have taken the same stand in any event, but it seems likely to me that the incident provoked him to couch his rejection in a manner which left no avenues open for reconsideration as long he remained President. For further clarification, we may have to wait until he has written a further volume of memoirs. My knowledge of the international repercussions is based largely on Schlesinger, *A Thousand Days*, pp. 842-875; and Theodore Sorenson, *Kennedy*, pp. 564-576. A more extensive historical narrative was prepared at President Kennedy's request by Richard Neustadt of Harvard University, but I am told that it is still classified top secret.

Question 2. What lessons learned in the Nike Hercules case can be applied to the proposed ABM system?

Answer. The main lesson is not a new one. It was taught more than a half century ago by Mr. Dooley: "Trust everyone, but cut the cards." Seriously, it is clear from the Nike Hercules experience and many similar cases that cost estimates submitted by even the best contractors cannot be trusted when the contractor is under heavy pressure to sell its program. Also, once the Defense Department has committed itself to support a program, it cannot be trusted to disclose information which reflects unfavorably upon the program. Therefore, if Congress wants to play the decision-making game on equal terms, it has no alternative but to "cut the cards"—that is, to develop its own detailed analysis of program technology and costs.

Beyond this, I can add only a couple of observations. I have no detailed knowledge of how the ABM R&D program is contractually organized. Several years back the main Nike Zeus R&D contractors worked under an annual term contract which made formal overruns extremely unlikely, since cost estimates were renegotiated annually. However, true overruns could materialize as previously unplanned tasks were added to the work statement and as the research and development effort slipped behind its original schedule. Under the overrun reporting system presently being instituted by the Defense Department, at least as announced in the newspapers, it seems improbable that such overruns would be disclosed. So here again Congress must be wary and cut the cards if it really wants to know what is going on.

For the ABM production program good cost estimation requires two measures: (1) a careful determination of whether the scope of the production and operations requirements have been fully identified; and (2) a costing-out of each detailed

sub-component, taking into account similarities to components produced in the past and adjusting for unique cost factors. Needless to say, this is not easy to do. Representatives of the RAND Corporation's Cost Analysis division—perhaps the best independent weapons cost estimating group in the country—have told me that they can achieve no greater accuracy than plus or minus 25 percent in making such estimates. Still that is a lot better than the actual estimation experience of past U.S. programs, and to have such good independent estimates would greatly improve the quality of decision-making.

Chairman PROXMIRE. Our next witness is Mr. Walter P. Reuther, president of the United Automobile, Aerospace, and Agricultural Implement Workers of America, representing approximately 1,800,000 members.

Mr. Reuther is one of the most preeminent and articulate labor leaders of our time and needs no introduction. However, I would like to point out that one of the most successful and important accomplishments of his many accomplishments concerns the work he did for the United States during the mobilization and defense production period of World War II. As vice president of UAW at the time, Mr. Reuther worked closely with the War Production Board, helping to solve bottlenecks and break up logjams in our war efforts, and was also a member of the National War Manpower Commission.

And we are most honored to have you, Mr. Reuther.

You have a substantial statement. It is an excellent statement. I have had a chance to read part of it. I intend to study it carefully. The staff has read it and is very impressed by it. The entire statement will be printed in the record. And I presume that you will give us an abbreviated report.

**STATEMENT OF WALTER P. REUTHER, PRESIDENT, UNITED
AUTOMOBILE, AEROSPACE, AND AGRICULTURAL IMPLEMENT
WORKERS OF AMERICA**

Mr. REUTHER. Thank you, Mr. Chairman. I would like my prepared statement to go into the record, and I would like to make some general observations.

I come here, as you have indicated, as the president of the UAW, representing 1,800,000 wage earners employed basically in the automotive industry, the agricultural implement industry, and the aerospace industry.

And in every national crisis a very sizable portion of the membership of my union has been engaged in producing defense weapons to defend the security of our Nation.

I would like to begin first of all by expressing my very sincere appreciation for your holding this hearing. I think that it demonstrates great wisdom and courage to hold a hearing dealing with the problem of the military budget and our national priorities.

I don't come here with any special competence in the area of military procurement. But I would like to just tell you how we in the labor movement feel about this problem.

I think that we can all agree that we live in a period of revolutionary change and challenge. And as one human being, I have the feeling

that the overriding question before the human family is the question, to what purpose are we going to commit the power and the potential of the 20th century technological revolution? If we continue to commit its power and its potential to the continued escalation of the madness of the nuclear arms race, I believe in time it will bring about the total self-destruction of the human race.

What we have got to realize is that for the first time we have the capability of solving the ancient problems that have plagued the human family, that we now have the technical capability of satisfying man's basic needs and therefore we can build, I think, a rational and responsible world community in which we can translate this great potential of the technological revolution into peaceful purposes.

The problem of our world is not science, it is man. Science and technology have expanded man's wealth but not his wisdom. They have multiplied his power, but not his understanding or his sense of compassion, or his sense of human solidarity when these become, I believe, the essential conditions for human survival.

We are in deep trouble in America. Our cities are in crisis. Our schools are in deep crisis. A growing number of our young people are being alienated. Thirty million of our people live in poverty in the midst of plenty, even though our gross national product is approximating \$1,000 billion. Children are growing up in America with twisted minds and bodies because of malnutrition.

And yet we are paying billions of dollars to corporate farmers for keeping land in idleness.

The advantaged and the affluent in America are calling for order, and the disadvantaged and the poor are crying for justice. And as we discuss national priorities, we need to understand that in a totalitarian society you can achieve order in the absence of justice, but in a free society we must work to build both justice and order, for if we do not achieve both, we shall have neither.

I believe as one American that we are in deep trouble, not because we lack adequate resources, or because we lack the technical capability of dealing with our basic and urgent domestic problems. We are in trouble, Mr. Chairman, because our values are out of focus. Our excessive military commitment has distorted our judgment, it has distorted our national priorities, and I believe it has distorted our national purpose.

We are in trouble because we have become the prisoners of the insanity of an ever escalating nuclear arms race, and because we have become so obsessed with the concern about an external threat, and we have over spent to meet that external threat, and we have created a more serious internal threat by failing to allocate adequate resources to meet our critical and urgent domestic problems.

I do not think that we have really understood or heard the words and the wisdom of a person like Albert Einstein, who perhaps knew more than any other living human being at the time what the splitting of the atom meant to the human family. And he said, the splitting of the atom has changed everything but our modes of thinking, and thus we drift toward unparalleled catastrophe. And as one human being,

I believe that the hour is later than we realize, and that unless we act rationally to end the nuclear arms race, the nuclear arms race, if it continues to escalate, will in time irrationally put an end to the human race.

I believe that the discussions that your committee is facilitating will do a great deal to help America look objectively at its problems, and to reevaluate its commitments in terms of its military need within the broad framework of our basic human and domestic needs. I believe that only as we work out a rational system of national priorities and put first things first, and then allocate our resources to insure the effective implementation of those priorities, will we be able to meet the challenge in the world, and the challenge at home.

And if we are to do that, I believe that we must of necessity subject every dollar that is appropriated for military purposes to the same hard scrutiny to which we subject other appropriations for domestic purposes. We have tolerated what I believe to be scandalous waste and inefficiency in the area of military procurement, and we cannot continue to tolerate that kind of waste when these resources are so desperately needed to meet our domestic needs.

I share the view, as one American—and I believe that there are an increasing number of Americans who share this view—that we are at that point in the balance between military needs and domestic needs where a meaningful and sizable reduction in military expenditures is essential, so that these resources can be freed for very urgent and desperately needed domestic programs.

I would hope that we could get at least a \$10 billion reduction as the first in a series of steps in a phased reduction of our military expenditures.

I would hope also, Mr Chairman, that this debate as to how a free people in a free society go about allocating their resources between military needs and domestic needs can be a rational and responsible debate. It should not be used to divide America between those who love our country and those who do not love our country. We are all patriots. And I believe that overwhelmingly, quite apart from partisan political considerations, if America was really faced with a serious external threat, no American would hesitate to make the kind of total effort that we have always been able and willing to make when faced with such threats. What is involved here today has nothing to do with patriotism. It has everything to do with how we go about working out sensibly and sanely, responsibly and rationally, the allocation of our resources so that we can make America strong and effective in meeting both our problems at home and our responsibilities in the world.

I believe that almost every American recognizes that in a troubled world we of necessity must be strong in terms of our military potential. No one is advocating unilateral disarmament. But it would seem to me that everyone ought to be in favor of a responsible approach that will make possible the negotiations of an international treaty so that we can bring about a reduction in the insanity and the increasing escalating levels of the arms race. We do not get more security when we

have the nuclear destructive capability of destroying every Russian several times over, and they the same with us. It does not increase our security if we keep multiplying that destructive nuclear capability. All we get is the balance of power at a higher and higher level of destructive capability, and any miscalculation that could enter into that can give us less security.

I also believe, Mr. Chairman, that the problem today is not the development of a new kind of isolationism. The most dangerous kind of isolationism for America would be for America to be so preoccupied with the cold war and the nuclear arms race and the tragedy in which we find ourselves in Vietnam as to become isolated from the American people and from the problems of America in our cities and our schools and our streets.

That kind of isolationism from the real critical problem at home could be disastrous.

I think that every American prays that Mr. Nixon's Midway conference will yield some new initiatives on the broad front in which we search for peace, because peace in our day is the only security. There is no other security. It is total madness to believe that you can pile layer upon layer of the weapons of overkill and in the process buy security. We have reached that point where we now have the capability of destroying every living thing. And if we use the weapons of nuclear destructive capability, there will be no historian around to record who won and who lost, because we will have destroyed the human family.

And so it is peace which is the only security, and it is the condition for human survival.

And so we pray that Mr. Nixon will come out of that conference with some new initiatives, so that we can facilitate the search for the building of a just and enduring peace.

I am hopeful as one American that the 25,000 troop withdrawal is but the first step in further de-escalation of our involvement. It would seem to me that there is an important lesson for America to learn out of the tragedy of Vietnam. First, we ought to understand that even the most powerful and richest nation in the world cannot unilaterally take upon itself the responsibility for being the world's policeman. And secondly, we ought to come to the understanding that military power is not the answer to economic and social and political problems, and in the long sweep of human history, the cause of freedom in Asia will have to be won in the rice paddies and not in the battlefields.

Now, I don't think that any American would challenge the patriotism of General Eisenhower, of President Eisenhower, and yet because he perhaps more than any American in the last decade saw America from two vantage points, he saw America as the top military man, and he saw America as the chief executive officer, because he understood what was going on in America in both areas he warned about the growing power, and the influence of the military-industrial complex. And he said very clearly that if we do not restrain military spending, our country in time will become a garrison state.

Now, I suppose if I had said that I would be subjected to all kinds of abuse from the extreme right wing political forces in America. But those are the words of General and President Eisenhower. And it seems to me that we need to heed his sound advice, and we need somehow to begin to pick up the practical and difficult task of restraining military expenditures, and bringing about meaningful and sizeable reductions in the military budget, so that those resources can be diverted to urgent domestic needs.

And I would like briefly, Mr. Chairman, to just touch upon a few areas that I think are matters of highest priority in our agenda of unfinished business. Because what are we defending in America? Are we defending real estate? I think not. We are defending a society that provides the opportunity for human growth and human development and human fulfillment. And when a society fails to do the things essential to facilitate that development and that growth and that human fulfillment, it creates an internal threat which is just as real and just as serious as any external threat. And that is the way I feel that we are today in America.

And I raise these priorities because I think they are essential to insure the national security of America against internal threats.

I make as the first priority the need for a massive commitment of resources for education, most of which must come from the Federal Government because the local tax structures of our communities are already overburdened, and most large communities have already exhausted their taxing capability. And we need massive resources if we are to overcome both the quantitative and the qualitative deficit in education, which is robbing millions of our young people of the kind of educational opportunity that they need to facilitate their maximum growth and development.

We in the labor movement have said many times that the best two standards by which you can measure the worth and the quality of society is how that society allocates its resources to educate the young and how it provides security and dignity for its older citizens in the autumn of their lives.

We, unfortunately, are failing on both scores. Half of the people beyond the age of 65 in America are living near or below the poverty level. And we are doing less to provide them with security and dignity than any industrialized nation in the world measured by our resources.

My third priority would be that we need to have the will and the good sense and the sense of purpose to wage a total war to abolish human poverty in a land of plenty. There can be no economic or moral defense of poverty in a land with our productive capability.

And yet we have only scratched the surface. We have only been working on the outer fringes of this effort. If we had committed to this war the kind of resources that we committed to a war some thousands of miles away, we would be well on the way of solving this. But the tragedy of our country is that we have always been capable of a total effort in pursuit of the negative ends of war when we are driven by common fears and common hatred, but we have never been equal to that kind of total effort in the pursuit of the rewarding purposes of

peace. And until we can make a total effort in the war against poverty, we will not really deal with the realities and the urgent dimensions of that challenge.

Fourth, I would like to suggest that we implement the Employment Act of 1946—Mr. Chairman, it is brand new, it has never been used. It committed our Nation to achieve three basic objectives:

Maximum employment, maximum production, and maximum purchasing power. And we have failed in all three areas. In those 22 years since that act has been on the books of this Nation of ours we have wasted 50 million man-years of potential economic production because of continued and chronic unemployment. I believe that that can be the margin of economic progress, and maybe the margin of survival.

We must make the right to a meaningful, useful job at a decent living wage a basic right for every American who is able and willing to work. And when the private sector, where we rely primarily for job-creating mechanisms, is either unable or unwilling to provide a meaningful job for every person able and willing to work, then the Government must act as the employer of last resort.

Now, this is not a revolutionary idea. The Automation Commission, which worked a whole year discussing problems of economic growth and full employment, on which we had a very distinguished group of people from the business community and the academic community, unanimously recommended that the Government act as the employer of last resort when the private sector is unable to provide meaningful and useful employment for an expanding work force.

I believe also, Mr. Chairman, that we need a basic revision in the archaic and obsolete welfare system, which came out of the poor laws of Elizabethan England. They are totally incompatible with the economics of a modern mass production, space age technology. They destroy individual initiative, and they breed one cycle of poverty after another. I believe that we have got to explore some system of guaranteed income for those people who are unable to work, so that we can in effect begin to build into our system individual incentives and encouragements so that we can break the vicious cycle of poverty.

I believe that we have to look at our food policy. Our whole food stamp program has been an extension of our food disposal program. We were getting rid of surpluses. What we ought to do is look at our food program as it relates to human needs, and not to marketplace forces. I think it is indefensible to have malnutrition and hunger in America while we spend billions and billions of dollars to subsidize land in idleness.

We need a massive effort to wipe out the slums and rebuild our cities, and to create a total living environment worthy of free citizens in a free society. We have the worst slums in the world. Every time I come home from a trip abroad I feel a bit ashamed that this rich and productive land of ours permits square mile after square mile of decay in the heart of great urban centers. We are losing ground on the housing front, because the forces of decay are marching faster than the forces of construction.

In 1949 we passed some basic housing legislation. And then we put it in mothballs, because we cannot allocate resources to translate that commitment into construction. In 1968 we passed another milestone piece of legislation in the housing field, and we called upon the Nation to build 26 million units in 10 years. We have the capability of building those units, provided we have the commitment.

I think that the most important lesson that we ought to learn from the Apollo flights to the moon is not the fact that we have the technological capability of building the kind of sophisticated vehicle—and we are proud in the UAW, because of our members built the Apollo 10 vehicle, and they built the Apollo 11 that will land men on the moon, in the North American Rockwell plant in California. We always knew that ultimately we would demonstrate the technological capability of that feat. The real thing I think to be learned from that is that we are going to the moon because we made a national commitment to go to the moon. And any time we make a comparable national commitment to rebuild our cities, or to solve these other problems, we will also be able to get the same kind of results. Our problem is that we have lacked the will and the commitment to take these tasks on.

We need also, Mr. Chairman, to restructure and build a modern national health care system. We are the richest nation in the world, and yet we have a third-rate health care program. We are spending, I am told, this year \$58 billion for health care services, which ranks only second to the money that we are putting into our military effort. And yet millions of Americans are denied adequate, comprehensive health care. The costs of these services are skyrocketing. The average city now has roughly \$100 a day for room and board in a hospital. And in 5 years we are told it will be \$150. The problem is not that we are not spending sufficient resources, the problem is that we have not organized a national system of health insurance to deliver the services that we need.

We have the broad environmental problem. You and I both are fortunate to live on the shores of the Great Lakes. Twenty percent of the fresh water supply of the whole world is in the basin of the Great Lakes. And yet we have done such a job of polluting that that fresh water has become a very serious problem. We are polluting our air, and our great urban cities are tangled up and paralyzed with traffic congestion.

We have got to deal with these problems, or we are going to produce a chrome plated wasteland in America unfit for human habitation.

We need also, Mr. Chairman, to put high on our list of national priorities a drastic overall reform in our tax structure. America has one of the most unfair, the most inequitable tax structure of any modern democratic industrialized nation in the world.

Low- and moderate- and middle-income families are being required to carry a disproportionate share of the tax burden, while wealthy individuals and families and corporations are able to escape their proportionate share. I testified before the Ways and Means Committee some weeks back. Many of our people said that they believe that there was roughly \$20 billion that was being lost through

loopholes. We need to close those loopholes and to have a tax structure that is equitable.

Now, there are many urgent problems on the agenda of unfinished business that we may take up. But I think we need to understand that the basic problem is that our values are out of focus, and that this is why we spend disproportionately of our resources for the negative ends of war, and we starve the domestic sector of our economy.

And we believe that we have got to put first things first and work out a responsible list of national priorities, and then commit ourselves and our resources to the achievement of these priorities.

I would urge that you give consideration to the passage of the National Economic Conversion Act that was introduced by Senators McGovern and Hatfield, so that we can have an orderly conversion of defense capability in turning production that is now used in the military effort to civilian uses.

We would urge also the establishment of an Office of Appraisal of National Goals and Programs. Why do we just have the Council of Economic Advisers looking at the purely economic aspects? Why don't we have a group that is looking at our social needs, and finding out whether we are on target, or where we need a greater effort, so that each year the President and the Congress and the people of this country will know, are we neglecting critical domestic problems, are we buying new problems down the road because of neglect today?

Now, I would like to conclude by saying that I have unlimited faith in the capability of free men and our free institutions. I believe that America is equal to the very difficult challenges that we face. But we will meet those challenges only if we try. And we will not try until we work out a more rational and more responsible allocation of our resources in terms of our military needs balanced with our domestic needs.

When Mr. Khrushchev was here I was asked to have dinner with him. We had a rough evening together. And he called me the chief lackey of American capitalism. But I haven't persuaded General Motors of that yet.

I tried to find out, why is it that he and all other doctrinaire Communists believe that they are riding the wave of the future, that history is on their side, and that in time they will bury us? And I came to the conclusion that all of these doctrinaire Marxists believe that our free society is composed of competing and conflicting irreconcilable economic pressure groups, and that as a society we are incapable of achieving a sense of common purpose except when we are driven by common fears and hatred in war. This is fundamentally the basic problem. Can we act together, can we achieve a sense of common purpose because we share common homes and common aspirations and common ideals? I think we can. And I believe that your effort to focus the spotlight on the need for working out priorities in the allocation of our resources will contribute greatly in helping America achieve a greater sense of national urgency, and a deeper sense of national purpose, and a greater sense of national commitment.

I believe that God and history will judge the quality and the worth of our society not by the size of our nuclear arsenal, nor by the destructive capability of the weapons of overkill. I think that we will be judged on how we order our priorities, how we allocate our resources, how we pursue our national purposes in raising living standards, in expanding educational opportunities, in providing security and dignity for our older citizens, and improving the living environment, and enlarging the opportunities for human growth, human development and human fulfillment.

And if we are to pursue these purposes, then of necessity we must look at how we allocate our resources.

Thank you.

Chairman PROXMIRE. Thank you, Mr. Reuther, for an eloquent and moving presentation, as well as one that is marked with a great deal of very enlightening and helpful information.

(Mr. Reuther's prepared statement follows:)

PREPARED STATEMENT OF WALTER P. REUTHER

My name is Walter P. Reuther. I am President of the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America representing approximately 1,800,000 members. I thank you for the opportunity of testifying on the subject of human needs and national priorities.

This Committee sits to examine our national priorities—particularly the relation of military spending to our spending to meet pressing social needs and expectations—at a time when our society is both uniquely prosperous and uniquely troubled. Never before in world history has a nation been so endowed with wealth and power, yet so plagued with doubt as to the proper uses of that wealth and power both at home and in the world community.

THE GOALS WE SEEK

We have potentially the physical means to make our way of life the finest that any people, anywhere, have ever known. And there should be little disagreement as to the goals we must seek to achieve that way of life. They would include, first and foremost, complete equality of opportunity based on individual ability, without reference to race, creed, color, social position or family wealth. This must include equal opportunity in employment, in the choice of a home, in education and in all social intercourse. In particular, we cannot claim to have established the good way of life in this country until all traces of racial discrimination have been eliminated.

In more material terms, the good way of life must also embrace the following goals:

Elimination of poverty from our society, including the assurance of an adequate minimum wage for those who are able and willing to work, and a guaranteed annual income for those unable to work.

The opportunity for every person to obtain as much education as he is able and willing to absorb.

The opportunity for every person to make the fullest use of his native abilities and learned skills, and to be compensated accordingly.

The best possible health care for every person, regardless of his individual finances.

A good home in a decent neighborhood for every family.

Adequate recreational and cultural opportunities for every taste.

Clean air and pure water in every community.

A steady rising standard of living for all.

A fair share of help for needier peoples.

An adequate national defense, physically capable of deterring aggression, but incorporated into a national policy of seeking security for America primarily

through the establishment of security for all peoples through international agreement.

The achievement of these goals will require the best and fullest utilization of all of our nation's material and human resources. In particular, we will have to maintain and achieve genuine full employment, a condition which we in the UAW define as one in which there is a job available for every person who is willing and able to work, a job which will make the best use of his skills and capacities, and pay him correspondingly high reward. In other words, we must begin to take seriously the commitment of the Employment Act of 1946 to provide "useful employment opportunities for all those able, willing and seeking to work."

THE AMERICAN CRISIS

Today we are tragically far from the achievement of any of those goals. Reference to the crisis of our cities has become a routine phrase in our national vocabulary. Yet the crisis of our cities, massive and complex though it be, is but part of the larger crisis of American values and purposes. And that crisis is brutally reflected in the budgets we allot to war and preparations for war, as compared with the budgets we provide for the essential and pressing tasks of peace, human renewal, and for improvement of the quality of life among our own people and among the hungry and struggling masses of the planet.

In short, our priorities as a people are seriously and dangerously out of order.

The American crisis is essentially a crisis of neglect. It might be said that American technology, if not American science, created the nuclear age and that over the past quarter of a century we lost our way in it, failing like Columbus to realize that we had discovered a new world where the survival and enhancement of human life would require new responses and responsibilities.

Albert Einstein, one of the major scientific founders of the new age, said of it: "The splitting of the atom has changed everything save our modes of thinking, and thus we drift toward unparalleled catastrophe."

We had begun in the early 1930's, under the whip of the Great Depression, to take a hard look at the weaknesses and injustices of our industrial society and had begun to remedy them. Yet our efforts at social and economic renewal were frustrated by the larger crisis of international instability, a crisis we had turned our backs on after the first world war. Our attention was diverted from the needs of the American people by the long struggle of the second world war. We have been engaged in hot war, cold war and preparations for war almost continuously ever since.

THE ESCALATION OF THE MILITARY

Inevitably, our military spending has escalated at a constantly accelerating rate.

The end of World War II left the world dominated by two powers—the United States and the Soviet Union. The war itself had revealed a degree of military strength in the Soviets which had surprised most Americans. And their rapid expansion to establish Communist regimes in eastern Europe at war's end convinced many people that if they were not prevented, they would over-run the world.

The Korean War, with its revelation of the growing strength of China, reinforced that belief.

Along with it grew the mistaken belief that it was the function and responsibility of the United States to act as a world policeman against Communist aggression, wherever it might occur or threaten to occur.

It is because of that belief that we have today more than a million and a half Americans in uniform beyond our country's borders—stationed in 119 other countries, according to General David M. Shoup, writing in the *Atlantic Monthly* for April 1969.

It is because of that belief that we have built the vast military-industrial complex which now dominates so much of our economic activity and stands as a primary obstacle in the way of our producing the goods and services required to meet our social needs.

Given that belief, the process was almost inevitable. World War II produced a whole series of scientific and technical breakthroughs with far wider potentialities for military application than could be fully developed in a time of war. But in a period of cold war, with first the fear and then the knowledge that the Soviets had the A-bomb and then the H-bomb, the drive to use our new technologies for new and ever more complex—and more expensive—weapons systems became virtually irresistible. At least, it was rarely resisted. On the military side, there was not only the desire to keep ahead of the Russians, but the desire in each branch of the service to keep ahead of the other branches. And as we developed a growing number of large corporations dependent primarily or in large part on defense production for their continued existence, they added their pressures for the development of new and ever more sophisticated weaponry. As General Shoup puts it:

"The dynamism of the defense establishment and its culture is also inspired and stimulated by vast amounts of money, by the new creations of military research and material development, and by the concepts of the Defense Department-supported 'think factories.' These latter are extravagantly funded civilian organizations of scientists, analysts, and retired military strategists who feed now militaristic philosophies into the Defense Department to help broaden the views of the single service doctrinaires, to create fresh policies and new requirements for ever larger, more expensive defense forces.

"Somewhat like a religion, the basic appeals of anti-Communism, national defense, and patriotism provide the foundation for a powerful creed upon which the defense establishment can build, grow, and justify its cost. More so than many large bureaucratic organizations, the defense establishment now devotes a large share of its efforts to self-perpetuation, to justifying its organizations, to preaching its doctrines, and to self-maintenance and management."

Nor is General Shoup alone in this view. When General Eisenhower issued his now endlessly quoted warning against the "acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex," he was speaking not out of some vague fears for the future but against the background of his own presidential experience with rising military budgets. Former *New York Times* reporter Jack Raymond, writing on the *Growing Threat of Our Military-Industrial Complex* in *Harvard Business Review* (May-June 1968), refers to that experience in the following passage:

"Eisenhower's concern over the 'complex' was based to a considerable extent on military spending pressures on his budget. At the height of a particularly aggravating dispute over the respective merits of Army and Air Force anti-aircraft weapons, he declared that 'obviously political and financial considerations' rather than 'strict military needs' were influencing the weapons debate. And on another occasion, when asked whether he would be willing to allocate more money for defense if the nation could, as his critics insisted, afford it, he replied heatedly, 'I would not.'

"Anyone 'with any sense,' he said, knew that if military spending were not restrained, the country would become a 'garrison state.'

"Reflecting afterward on his experiences, Eisenhower confirmed his 'uneasiness about the effect on the nation of tremendous peacetime military expenditures.' He complained in his memoirs, 'The military services, traditionally concerned with 100 percent security, are rarely satisfied with the amounts allocated to them, out of an even generous budget.' As for private industries, they were spurred by the desire for profits and created 'powerful lobbies to argue for even larger munitions expenditures.' Regarding political influence, he added, 'Each community in which a manufacturing plant or a military installation is located profits from the money spent and jobs created in the area.'"

THE PRICE WE HAVE PAID

Arthur F. Burns, Chairman of the Council of Economic Advisers under President Eisenhower and now chief White House adviser on domestic policy to President Nixon, offered in a 1967 lecture additional conservative testimony as to some of the price we have paid by our over-commitment to a predominantly military view of our world role and our resulting under-commitment to the tasks of putting our own democratic house in order:

“. . . the economic growth of a nation is a blind concept unless we consider what is produced as well as the rate of growth of what happened to be produced. During the decade from 1957 to 1966, our nation spent approximately 520 billion dollars on defense and space programs. This sum is about two-and-a-half times as large as the entire amount spent on elementary and secondary education, both public and private. It is almost three times as large as the amount spent on new housing units outside of farms. It exceeds by over a fourth the expenditure on new plant and equipment by the entire business community . . .”

* * * * *

“. . . Nevertheless, the development and spread of thermonuclear weapons, the frustrations of the cold war, and now the brutal struggle in Vietnam has left us, despite our awesome military power, more anxious about our national security than our fathers or grandfathers ever were.”

THE WRONG KIND OF “SECURITY”

It has been apparent since 1914 that the massing of armies and armaments leads to war, not to peace. In the era of nuclear weapons, whose destructive power is unlimited, both the superpowers have been extra-prudent. But it has not escaped our attention that the piling up of nuclear armaments, confers no certain security, any more than did the massing of cannon and shells and dreadnoughts in the era before the Great War. In short, we have harnessed ourselves to an open-ended commitment. Generations upon generations of missiles and other weapons systems breed like fruit flies, yet we are not secure. What is more, we never shall be as long as we continue to enslave ourselves to the simple-minded proposition—sensible perhaps in the stone age—that more weapons mean more security. In the nuclear age, now that both Russia and the United States have sufficient destructive power to incinerate the planet several times over, the overriding danger is not Russia, or, from their standpoint, the United States, but the further escalation of the arms race itself.

This awareness has penetrated the White House. President Nixon's call for an era of negotiation rather than confrontation reflects the awareness of his foreign policy adviser, Mr. Henry Kissinger, that it has become impossible in the age of nuclear weapons to translate military power into national security and international stability.

President Nixon in his inaugural address emphasized the need to move from confrontation to negotiation in an all-out effort to build a peaceful world. Unfortunately, the recent actions and statements of both the President and Secretary of Defense Laird do not reflect this commitment to move from confrontation to negotiation. Rather than giving first place to a search for what Mr. Kissinger calls “a new concept of international order,” the White House and the Department of Defense continue to offer frightening evidence that they are still mesmerized by the claustrophobic obsessions of the bi-polar duel of the Cold War.

TIME TO BLOW THE WHISTLE

It seems to us in the UAW that the time has come for the American people and the Congress to blow the whistle on the war-games strategists and their swollen budgets and sweetheart deals with defense contractors, and to demand a mobilization of our great resources in behalf of strategies for world and domestic peace. It is time to put our money where our true needs and interests are, and where our security as a free people is in desperate danger: in the urban and rural heartlands of American democracy and in cooperative international efforts to save the underdeveloped lands of planet Earth which is our home from being engulfed in poverty, famine and overpopulation.

There is mounting evidence of a changing mood, both among the American people and their Congressional spokesmen, which offers hope that this massive yet essential shift in direction and priority can soon begin to take place. Certainly there are reasons enough to account for public concern over our present course, a concern that cannot be appeased by public relations gestures and semantic sleight-of-hand such as crossing out “Sentinel” and writing in “Safeguard,” or calling the ABM a “building block for peace” when the whole mad logic of the arms race leaves no doubt that ABM, if deployed, would be a stumbling block to peace.

Among these reasons for concern are the following:

1. *Vietnam*.—This tragic war has divided our society, drained scores of billions of dollars—\$100 billion at last count—desperately needed to restore and rebuild our own communities, and alienated a large segment of our next governing generation. This country will continue to be handicapped in meeting problems here at home and moving in a peaceward direction in our world policies as long as the Vietnam albatross hangs around our neck. The *New York Times* (May 28, 1969) has rightly charged Defense Secretary Laird with “double-talk” for his description of American military tactics in Vietnam as “maximum military pressure on the enemy consistent with the lowest possible casualties.” According to U.S. Army figures, the paper reports, the number of small-unit actions initiated by the allies doubled in the first four months after the November 1 bombing halt; and battalion-size operations have also increased substantially. Ambassador Harriman, our former envoy to the Paris peace talks, has urged the United States to take the lead in reducing the number of offensive search-and-destroy operations. Harriman, Senator Mansfield, and others assert that such an initiative on our part would lead to a reciprocal de-escalation by Hanoi and spur forward movement in the Paris talks. Moreover, in confidential interviews, many high-ranking U.S. officers in Vietnam, from field captains to members of the top command, have stated (*Washington Post*, May 11, 1969) that we have more troops in Vietnam than we need, and that at least 50,000 could be withdrawn at once without impairing the war effort. The same report cited the belief of military attaches of several friendly European countries that “well over 50,000 troops” could be withdrawn immediately with little if any effect on the war’s conduct. Some of the U.S. field officers said that troops could be released by keeping American forces nearer to their bases in more defensive postures, and giving South Vietnamese divisions a greater chance for independent operations. An American colonel was quoted as stating, “We’re not testing them now, we’re not giving them a chance.”

Senator Mansfield stated in a May 25, 1969 televised “Face the Nation” interview that American tactics in Vietnam were an obstacle to progress in the Paris negotiations, and said: “What we ought to do is not so much apply pressure in Vietnam as to apply pressure in Paris.” It was our refusal to let up in Vietnam that accounted for high casualty rates in the period culminating in the assault on Hamburger Hill. This stubborn policy cannot be attributed to field commanders. It was determined by civilian authority last November, and it is the President’s responsibility and obligation to end it, in order to quicken the pace of the Paris talks.

2. *Military preemption of Vietnam savings*.—Even before Vietnam war costs are phased out, it appears the military budget will continue to loom so large that it will eat up any prospective savings from the war’s end. Former U.S. Budget Director Charles Shultze told the Congressional Conference on the Military Budget and National Priorities (March 28 and 29, 1969):

“The sum and substance of all this is that by simply maintaining our presently approved military posture, with no major cost escalation, with no new weapons systems of any significant kind approved, current spending plans will roughly eat up the Vietnam dividend by about fiscal 1974 . . .”

And Mr. Shultze pointed out that on the basis of past experience, military costs would inevitably be higher than presently estimated levels.

THE “WISH LIST”

In a piece entitled, “\$100 Billion Shopping List for Arms”, which foreshadowed the conventional hard-line views of Secretary Laird, and echoed the congressional hawks and defense industry lobbyists, *U.S. News & World Report* (November 25, 1968) stated the military case for a post-Vietnam future filled with fat and lucrative Pentagon “wish-list” budgets:

“Backed up in the Pentagon, waiting for an end to the Vietnam war, are military-weapons projects with an estimated price tag of around 100 billion dollars.

It can be taken for granted that the list was priced at the bare minimum “buying-in” level, and that the ultimate cost to the government—and to starved domestic social program—would be much higher if the military wishes come true.

Robert S. Benson, formerly in the office of the Assistant Secretary of Defense (Comptroller), in his article, "How the Pentagon Can Save \$9,000,000,000" in the *Washington Monthly* for March 1969, describes the buy-in ritual:

"The buy-in—Our procurement system encourages contractors to play the game called 'buy-in.' The rules are simple. Contracts are awarded to the company which offers the lowest bid with a straight face. Later cost overruns may bring a mild reproach or a stern reprimand, but they will not prevent the contractor from getting enough money to cover all his costs and pocket a profit. A contractor rarely takes these reprimands seriously; he knows that his competitors have similar experiences. Besides, the procurement officials have told him to worry about performance and prompt delivery, not about cost. So the buy-in game produces initial cost estimates that everyone knows are unrealistically low."

It must also be remembered that the armed services spend \$4 million annually to maintain a corps of 339 lobbyists who make regular forays on Capitol Hill to enlist support for new hardware.

Nor should it be forgotten that the defense contractors themselves are active players of the acceleration game, not passive recipients of Pentagon largesse. Their activism was sharply sketched by Bernard D. Nossiter in a December 8, 1968, article in the *Washington Post* bearing the heads, "Arms Firms See Post-war Spurt: Leaders Show Little Interest in Applying Skills to Domestic Ills." Mr. Nossiter wrote:

"The shrewd and skillful men who direct large, sophisticated defense firms look forward to a post-Vietnam world filled with military and space business.

"For them, the war's end means no uncomfortable conversion to alien civilian markets. Quite the contrary, and with no discoverable exception, they expect handsome increases in the complex planes and missiles, rich in electronics, that are the heart of their business."

Nossiter quotes one of the largest military contractors as saying, "Our future planning is based on visible contracts. One must believe in the long-term threat."

Nossiter introduces Samuel F. Downer, financial vice president of LTV Aerospace, in a Dallas apartment whose walls are covered with paintings, one of which, a view looking west on New York's Wall Street, Downer likes best because, as he said, "It's all there, the flag, the church and money." Mr. Downer is then quoted on his reasons for believing that the postwar world must be "bolstered with military orders":

"It's basic. Its selling appeal is defense of the home. This is one of the greatest appeals the politicians have to adjusting the system. If you're the President and you need a control factor in the economy, and you need to sell this factor, you can't sell Harlem and Watts but you can sell self-preservation. . . ."

An official at the U.S. Arms Control and Disarmament Agency, who asked that his name not be used, "dispairingly agreed" with Nossiter's findings, stating:

"I'm not sanguine about any reductions in military spending, especially since the election. We are now at the edge of a precipice where we can escalate sharply. The industry thinks that agreements to limit arms are unlikely and will go all out to realize their expectations. We are at the threshold of another round in the arms race, just as we were eight years ago when we went all out for long-range missiles."

And Nossiter concludes:

"Thus the end of hostilities opens up great new opportunities for sophisticated munitions makers. They and their Pentagon colleagues will press for bigger research and development budgets, an outlay guaranteed to produce new designs that military men could find irresistible."

MILITARY OVERSPENDING DOES NOT BUY GREATER NATIONAL SECURITY

The overriding question before the nation is whether Congress and the American people will find them irresistible. For the present and prospective military drain on the federal budget poses a double threat: a continuing stress on arms competition, far from protecting the national security, will increase our insecurity by profoundly disturbing the present balance of strategic power between the United States and the Soviet Union; at the same time, it will undermine the ultimate basis of our security, which resides in the well-being of all our citizens and the social cohesion of our society stemming from a common sense that justice is

being done and basic aspirations are being realized. If the military continue to bite so ravenously into the federal budget, in short, they will in effect dictate a continuation of the present self-defeating policy of attempting to meet our domestic commitments on the cheap. We have heard from the cities, and from the National Commission on Civil Disorders which studied the lesson that could be found in the ashes of the 1967 riots. The message is that starving the urban centers of America of the funds they need for human and physical renewal in pursuit of some perfect or absolute form of military security, will bring us not security but disaster.

The Joint Economic Committee of the Congress is to be commended for calling attention, in its Report on the *Economic Report of the President*, to the failure of the Executive Branch to give adequate attention to the facts and issues related to military expenditures. We support the Committee's urgent requests, (a) "that the Council of Economic Advisers and the Bureau of the Budget increase substantially their efforts to analyze and evaluate issues related to defense spending; and (b) "that the Executive Office of the President undertake ongoing and comprehensive investigations of defense procurement matters and submit their findings to this committee as part of the Annual Economic Report."

The Congress and the American people are quite properly disturbed over the continuous escalation of military expenditures, and the failure to provide proper checks and control over such expenditures, comparable to what we do for civilian spending; and this brings us to our third cause for concern:

The failure of the White House and the Pentagon frankly to acknowledge the appalling degree of waste in military spending and the vast layers of fat in the current and projected Pentagon budgets, and to make the sizeable cuts in the defense budget that can be made now without affecting the Vietnam war or impairing our national security.

Senator Proxmire and the members of the Joint Economic Committee are performing a public service whose great value is not yet fully appreciated, in raising the issues of waste in military spending and in pointing to the need for more critical review of Pentagon budgets and more efficient procurement and accounting practices in order to cut waste and profiteering and foster genuine competition among defense contractors. Senator Proxmire's March 10, 1969 warning to the Congress and the country that "the President and the Congress and, indeed, the country, have lost control over military spending" helped growing numbers of the American people to place their anxiety over the ABM within the broader framework of the spending and procurement excesses which for years have characterized our military establishment, and the generally uncritical acceptance until now, both on the part of Congress and the public, of military demands on federal revenues, however unreasonable such demands might prove to be.

Before Vietnam, the simple equation was made that more money equals more weapons and more weapons necessarily mean more security. The nation, moreover, was still in the grip of the misconception that the power and wealth of the United States are without limits, that "we can do whatever we want or have to do."

Vietnam destroyed that myth by demonstrating that, whatever in principle we were capable of doing, we could not in fact, as a practical matter, spend as much as \$30 billion annually for war on top of \$50 billion for "defense" and still cope in adequate measure with our domestic needs. Therefore, since we could not do everything, our attention has inevitably been drawn to the question of priorities, to the problem of balancing our commitments and resources according to some scale of values regarding our national purposes, needs and goals.

TAKING A HARD LOOK AT MILITARY SPENDING

Along with Senator Proxmire and his colleagues on the Subcommittee on Economy in Government, and Senator Fulbright and his Foreign Relations Committee, a distinguished roster of Senators of both parties has been subjecting military programs and policies to the same show-me examination until now reserved strictly for domestic social legislation and the budgets of civilian departments and agencies.

Senator Thomas F. Eagleton, in a speech delivered in St. Louis on April 7, 1969 made this comment:

"For over 20 years military programs have annually marched through Congress, cloaked in secrecy or wrapped in the flag, while Congress saluted and appropriated virtually without question or debate.

"In my judgment, we have perhaps become the victims of a sort of Parkinson's law of military momentum, with military budgets and requests for sophisticated new weapons systems constantly feeding on themselves—self-perpetuating and ever growing with little regard for cost, effectiveness, or need."

Addressing his colleagues on April 14, 1969, Senator Proxmire said:

"As for congressional review, we all know of the problem we have on the floor when the military budget comes before us with more than \$70 billion to be debated in a few hours. *In the 12 years I have been in the Senate, I have never heard an effective debate responsibly questioning and answering this massive budget, this very large proportion of all this Government spends.*" (Emphasis added)

Senator Percy reinforced the point on April 25, 1969, when he told his fellow Senators:

"The Pentagon's defense budget requests have risen from \$13.8 billion in 1950 to \$40.8 billion in 1960 to \$81 billion in the current fiscal year. And year after year Congress has granted these requests in full, and has even increased them, often after only the most perfunctory debate on the Senate floor."

It is clear that the established tradition is being modified. The *Congressional Record* of late has been shot through with evidence of the easy-come, easy-go way of the Pentagon with federal tax dollars, the tendency to "gold-plate" an already quite adequate capability in order to enhance the prestige of competing services, and the profitably symbiotic relationship between a military establishment bent on engendering ever-new generations of weapons systems and a relatively small group of defense contractors who have found a very good thing in producing low-performance and high-cost hardware and electronic black boxes.

The evidence the Senators have uncovered has aroused the indignation of Americans who until Sentinel and Safeguard had never given a thought to the complex maze of rituals and procedures whereby weapons systems are born and die, or so frequently prolong their existence in a stretched-out limbo of half life, acquiring new names and numbers and continuing to cost taxpayers millions upon millions of dollars for research and development, frequently without ever being deployed, or ending up obsolete before they get into production.

UNDERPRICING ARM

The Administration's cost estimates for Safeguard were deceptively low: \$6.7 billion for 12 sites. The McGraw-Hill *Defense Marketing Survey* for March 1969, however, priced out the system's total cost through 1975, assuming no cost overruns, and arrived at the figure of \$11.08 billion, almost double the Administration's total. The Administration's figure represented only funds for procurement and construction and omitted costs of RDT & E, operations and maintenance, and warhead costs.

Senator Cooper, in introducing the McGraw-Hill survey into the *Record* on May 8, 1969, pointed out that the survey itself had ignored about \$1 billion in AEC warhead costs and had underestimated some unit costs of components.

Even the higher *Defense Marketing Survey* estimate of Safeguard costs, including Senator Cooper's corrections, does not begin to approach the probable full cost of this latest version of the ABM, since no allowance is made for cost escalation, which has been the rule not the exception.

Speaking of Sentinel, forerunner of Safeguard, on March 4, 1969, Senator Symington said:

"... It is within the range of possibility that the 'thin' China system could conceivably cost the American taxpayer over \$40 billion; and the cost of the 'thick' Soviet system could be over \$400 billion.

"Let us note in passing, especially to those prone to accept without question all new weapons systems proposed by the military, that this latter figure is more than the current national debt."

Senator Symington said he spoke out of "many years of practical experience in the electronics industry prior to my coming into government."

THE STUBBING STUDY

Mr. Richard A. Stubbing undertook a study on the subject of "Improving the Acquisition Process for High-Risk Military Electronic Systems" while attending Princeton University for the 1967-68 school year on a scholarship awarded to him for his superior performance as an official at the Bureau of the Budget. The study was entered in the *Congressional Record*, February 7, 1969, after a report on it had appeared in *The Washington Post* on January 26, 1969. Mr. Stubbing begins with a brief prefatory comment, which includes the following passage:

"A growing and prosperous nation can afford many luxuries, but the low overall performance of electronics in major weapon systems developed and produced in the last decade should give pause to even the most outspoken advocates of military hardware programs . . ."

He then goes on to analyze the performance of a "sample of 13 major Air Force/Navy aircraft and missile programs with sophisticated electronic systems initiated since 1955 at a total cost of \$40 billion . . ."

Many of the planes and missiles whose performance was analyzed were not identified by name for security reasons. Mr. Stubbing found, in his words:

"Less than 40% of the effort produced systems with acceptable electronic performance—and uninspiring record that loses further lustre when cost overruns and schedule delays are also evaluated."

Of the 13 weapons systems, only four, costing \$15 billion, were rated "satisfactory," meaning they worked at more than 75 percent of their specified performance. Five others, costing \$13 billion, were rated "poor" in performance because their electronics operated less than 75 percent of specified number of continuous hours before unscheduled failures.

Two other programs, which cost \$10 billion, were phased out for low reliability after only three years of operational life. The remaining two, the Skybolt missile and the B-70 bomber, were so unreliable they were canceled: cost \$2 billion.

Thus, out of 13 major weapons systems costing \$40 billion in taxpayers' money, two were outright duds, two more were also duds abandoned less abruptly, and five more were inadequate in performance; in all, a highly dubious investment of \$25 billion.

Stubbing recommends competitive development of prototypes before contracts are awarded for systems dependent on high-risk advanced electronics. He points to cost overruns of 200-300 percent, schedule delays averaging 2 years, and low operational performance when such systems are developed without such competition. He concludes:

" . . . the use of competitive development would have the advantage of substituting achievable system performance and cost criteria for the 'pie in the sky' promises which have been made in the past on airborne electronic systems."

\$10.8 BILLION IN "FAT"

There is nothing more natural than that under such permissive circumstances abuses and wastes would accumulate. Last year *Congressional Quarterly* asked defense experts in and outside the government about the wastes, and was told that "huge cuts can be made in the defense budget while retaining or even improving the current level of the nation's defense." *Congressional Quarterly's Weekly Report* of June 28, 1968 continued:

"Highly placed sources in the Pentagon and industry told CQ that cuts totaling at least \$10.8 billion could be made in areas they classified as 'fat'. None of the cuts would affect U.S. combat capabilities, they said. Instead, only logistical elements they view as excessive and weapon systems they consider overlapping, unnecessary or of doubtful combat effectiveness would be cut back."

* * * * *

"Sources emphasized that the areas probed by CQ were only the 'most glaring examples' of Defense Department 'fat.' According to one Pentagon source, 'A really detailed probe by the Congressional Appropriations Committee would reveal millions if not billions in other possible savings.'"

The *Congressional Quarterly* concluded with this quote from Senator Mansfield: "I think it is up to this institution (Congress) to fulfill its responsibilities to check, to recheck, and not to be taken in by what the Joint Chiefs of Staff or the Secretary of Defense . . . say they must have, because we never can satisfy them."

BILLIONS SPENT ON ABANDONED PROJECTS

Early this year the Pentagon, after some prodding, released a list of "major projects terminated during the past 15 years". Saul Friedman, Washington correspondent for the Knight newspapers, in an article entered in the *Congressional Record* of March 26, 1969 said of it:

" . . . The list is not generally circulated and is typed on plain white paper without the usual Pentagon letterhead.

"According to the list, more than \$9 billion was spent on 66 projects before they were abandoned as unnecessary, unworkable, or useless. Among them were 19 different aircraft projects and 28 different missile systems."

* * * * *

"The Pentagon figures, however, are not complete. The cost of several projects was apparently underestimated. For example, the amount spent on Dyna-Soar (an airplane re-entry vehicle) was given as \$405 million. McNamara has testified Dyna-Soar cost more than \$800 million before it was dropped.

"Nor does the list include about \$500 million spent by the Atomic Energy Commission for nuclear materials on the ill-fated atomic airplane, or more than \$600 million for the Navy version of the TFX—the F-111B, which was abandoned last year.

"Therefore, not including considerable, but secret AEC costs for nuclear warheads on missile projects which were cancelled, a conservative estimate of the programs abandoned during the last 15 years is \$10,533,700,000."

Senator Mondale has pointed out that:

"The \$2 billion cost escalation on the \$3 billion original C-5A cost estimate amounts to more money than was appropriated for the War on poverty this year."

Senator Harry Byrd was quoted as saying (*Washington Post*, May 2, 1969) that the circumstances surrounding the C-5A cost overruns had led him to "view with skepticism the entire military budget."

A provocative item in the gathering inventory of Pentagon plunging with tax dollars was reported in the May 16, 1969 *Detroit News*:

"PLANE PRICE QUERIED, AF TO SEEK BIDS"

"The administration yesterday dropped its request for \$14.8 million to buy 28 planes which a congressman said could be purchased on the commercial market for \$25,000 each.

"The Air Force had sought the funds to buy Wren 460-B planes, which are commercial Cessna 182s especially modified to reduce engine noise for use in Vietnam.

"Later yesterday the Air Force said it abandoned its plan for 460-B purchases from Cessna in favor of opening the project to competitive bidding. It said seven firms had expressed interest."

HOW TO SAVE \$9 BILLION

Robert S. Benson, cited earlier, drew upon his experience in the office of the Assistant Secretary of Defense (Comptroller), to outline in the March 1969 *Washington Monthly* how the Department of Defense can cut over \$9 billion from its budget. His focus, he wrote, was "on areas where forces or weapons systems are either duplicated or outmoded, where an enemy threat is no longer credible in today's political and technological environment, or where money is being lost through grossly inefficient performance."

He said the following ground rules applied:

"None of the cuts is related to the war in Vietnam. None of the cuts would impair our national security requirements. All of the cuts are in what the Pentagon calls ongoing core programs. All of the cuts would be effected within

the next 24 months, which would allow the savings to be applied rather quickly to unfilled domestic needs."

Benson says:

"The Defense Department's budget review process concedes too much at the beginning. Last year's budgeted amounts are generally taken by everyone as this year's starting points. This practice ignores the possibility that fat crept into preceding budgets or that some of last year's activities are now outmoded . . . The result, of course, is higher budgets, with past errors compounded year after year."

Benson gives some examples of low-priority military options vs. high-priority needs on the domestic front:

"Funding the Manned Orbiting Laboratory—or providing Upward Bound summer courses for the 600,000 additional ghetto students who have the potential to go to college;

"Spending this year's Sentinel funds—or training 510,000 more hard-core unemployed;

"Continuing to operate one of the marginal tactical aircraft carriers—or training and supporting 20,000 more Teacher Corps members;

"Maintaining our full troop complement in Europe or diverting an additional \$10 million to each of 150 Model Cities;

"Permitting excessive contractor costs to flourish unchecked—or providing Head Start education for 2,250,000 more children, plus enough school lunches to feed 20 million children for a whole year.

"These alternatives are real and immediate. They do not represent wishful dreaming. The choices are up to Mr. Nixon, to the Congress, and ultimately to ourselves."

WHAT IS THE FIRST PRIORITY?

Checking the cost of escalation in military contracts in order to educate and feed so many more children ought to appeal to President Nixon. In his April 15, 1969 message to the Congress on his forthcoming domestic program, the President said:

"... one area of deep concern to this Administration has to do with the most dependent constituency of all: the child under five.

"I have announced a commitment to the first five years of life as one of the basic pledges of this Administration . . ."

He also stated that he and his aides had subjected the federal budget to an intensive review and throughout the Administration addressed themselves to "the critical question of priorities."

The President stated:

"Peace has been the first priority. It concerns the future of civilization; and even in terms of our domestic needs themselves, what we are able to do will depend in large measure on the prospects for an early end to the war in Vietnam."

It would seem that the Secretary of Defense did not attend some of the meetings. The *Washington Post* of May 17, 1969, under the headline, "Big Outlays for Defense Won't End When Peace Comes, Laird Warns," reported:

"Defense Secretary Melvin R. Laird told the Nation last night that the end of the Vietnam war would not mean the end of big defense budgets."

We cannot accept, nor do we believe the American people or the Congress will accept the proposition expressed by the Secretary of Defense, that following the reduction of expenditures for the Vietnam War, the money should be diverted to escalate arms production instead of being diverted to help solve the myriad of social and economic problems confronting the nation. We urge and we believe the American people will insist that these resources must be used to help the people achieve a better life, to fulfill their urgent social and economic needs, and not simply to increase the firepower capability of our military machine.

Meanwhile, the Congress should proceed to strip substantial layers of fat from the Pentagon budget, by subjecting it to "zero-base budgeting," which Mr. Benson defines as "review from the ground up."

The Subcommittee on Economy in Government of the Joint Economic Committee has made a number of recommendations—looking into the real profits of defense contractors; adoption of more efficient and stringent methods of audit-

ing contractor performance and weighing payments made against goods and services received; development of a military procurement cost index to keep a check on rising costs; compilation of a defense-industrial personnel exchange directory to keep track of the movement of Defense Department personnel into the employment of defense contractors and vice versa; making greater use of true competitive bidding; strengthening the Truth-in-Negotiations Act; and ending the practice of private contractors preempting for their own use patents obtained for inventions made under government contract. All these are useful and necessary remedies which we support, but we believe that Congress must take an even tougher line.

A "high career official" of the General Accounting Office, according to the *Washington Daily News* (April 23, 1969) has said:

"It is impossible for anyone to tell exactly how many of the taxpayers' dollars are being wasted—or spent ineffectively—because of haphazard spending policies.

"The horrible truth," said a high career official of the General Accounting Office, "is that neither the President nor Congress nor anyone else really knows enough about what the government is doing, and what results its programs are achieving, to speak with certainty about how much waste there is in our \$200 billion a year Federal budget."

"Pressed for an estimate, he said \$20 billion to \$30 billion a year would be a 'realistic guess.'"

Reports to date of costs overruns and coverups, weapon duplication, sheltered bureaucracy in the Pentagon and poor management among defense contractors, along with twenty years or more of unsupervised handling of federal funds for military purposes, strongly suggest that most of that \$20 to \$30 billion of waste is taking place in the Department of Defense. We strongly urge that the President and the Congress go after it. Since review from the ground up is an arduous task, and since the military would enjoy a considerable advantage in fighting a holding action against the Congress over individual requests and weapons systems, an across-the-board cut in the Defense Department budget should be made over the next three years. The cut should be at least 10 percent in the first year, increasing to 20 percent in the third year, not including any savings made through de-escalation or termination of the war in Vietnam. A cut of this kind would parallel that made in the same manner in the civilian budget last year.

In the meantime, preparations should be made for the more detailed ground-up analysis which must be accompanied by a full Congressional review and debate on American policy commitments, civil and military, around the world. This review of commitments is vital, for much of the bloat in the Pentagon budget stems from over-ambitious and now outmoded contingency planning for a predominantly militaristic view of our world role and an increasingly irrelevant and counter-productive conception of ourselves as world policeman.

SAVINGS THROUGH TAX REFORM

In addition to the \$20 to \$30 billion per year that could be saved through elimination of waste and inefficiency in our government, there is another \$20 billion or more that could be added to the national revenues simply by plugging the loopholes which now permit very rich individuals and some corporations to escape their fair share of the tax burden. Not all of this would be available for government spending, since some of it should be used to ease the excessive burden of taxation carried by the poor and those of moderate incomes, but some should still be left to meet our social needs.

Since I recently testified on this subject before another committee of the Congress, I shall not belabor it here, but I would like to make a few major points.

At one end of the scale, we are today taxing heavily many families who are actually living in poverty, and taxing into poverty many more who live near the poverty line. If you take the government's official figures for what amounts to a poverty income, adjusted to today's prices, and applied to families of various sizes, you will find that in federal income tax and Social Security tax combined, these families may be carrying tax burdens ranging roughly from \$190 to \$260 per year. If you use the near-poverty figures—which most of us would con-

sider rather as more realistic estimates of what constitutes actual poverty—the burden ranges from about \$290 to \$562.

At the other end of the scale, in 1966 there were 12,088 individual tax returns which reported adjusted gross incomes of \$15,000 or more, with an average income of over \$35,000 which were completely nontaxable—not one cent of income tax to be paid.

Of these 12,088 nontaxable returns, 367 reported incomes of \$100,000 or more, averaging \$383,000 apiece; 18 of them reported incomes of \$1,000,000 or more, averaging nearly \$3,340,000 apiece.

These are just the incomes which pay no tax at all, which are easily discernible from the statistical tables. More difficult to separate out are those which pay only a fraction of the taxes they would pay if there were no loopholes to take advantage. But it is clear that tax avoidance of this kind is common all through the upper income brackets. The actual income taxes paid by taxpayers with incomes under \$10,000 average about 90 percent of the amount determined simply by applying the standard tax rate to their reported incomes—the remaining 10 percent presumably being the result of allowable deductions over and above the standard deduction. As incomes rise above \$10,000, however, the amount of tax actually paid steadily declines as a percentage of the standard tax rate. The average taxpayer with an income between \$20,000 and \$50,000 pays only 80 percent of the standard tax rate for his bracket; at \$100,000 to \$200,000 he pays only 62 percent; and the taxpayer with an income of more than one million dollars averages only 41 percent of the standard tax payment.

Altogether, on a very conservative basis, we estimate that at least \$20 billion of tax revenues could be gained by plugging the loopholes that favor chiefly the rich and the very rich.

As indicated earlier, we do not believe that all of this additional revenue should be devoted to government spending programs. Some of it should be used to eliminate federal income tax and Social Security payments by those who are in poverty, or would be taxed into poverty, and if possible some should be used to ease the tax burden of those with moderate incomes who are now paying more than their fair share. But if a thorough job of tax reform is done, we believe there would still be some additional revenues available to meet the needs which we can only meet through our government.

BILLIONS FOR CIVILIAN NEEDS

No statistics exist for determining the total amount in money, or in actual goods and services, which can be released for programs to meet our civilian needs if we get our priorities into better order—but the amount is vast. If we bring to an end the war in Vietnam, or at least scale down our activities there significantly; if we reach agreement with the Soviet Union and other countries for a mutual de-escalation of the arms race; if we pare off the fat of military procurement, eliminate inefficiency and waste and insist on more realistic evaluation of our military needs; if we plug the tax loopholes which now permit a relative few to evade their fair share of the nation's burdens to the tune of many billions of dollars per year; if we do all these things, then there will literally be tens of billions every year which will be available for meeting the real needs of the nation.

All of these represent opportunities, not merely for financial savings, but for the release of personnel and physical resources which are so badly needed for the war we must wage at home—the war against poverty, against slums and the degradation of our cities, against pollution of the air we breathe and the water we drink, the war to achieve an adequate standard of living, the best of health care, superior educational opportunities and a good home in a wholesome neighborhood for every American.

THE AGENDA OF UNFINISHED BUSINESS IS GREAT

But let us not delude ourselves that if we can only move from a war-oriented to a peace-oriented economy, we will then be able to transform our country overnight and painlessly achieve all our national goals. The urgent agenda of our unfinished business is far too great for that.

Thirty million people in the world's wealthiest country live in or near poverty, alienated and dispossessed. At least fifteen million suffer actual hunger and malnutrition while we pay wealthy corporate farmers \$3 billion a year to keep their land idle.

In all our major cities there is square mile upon square mile of inadequate, obsolescent housing that needs to be replaced, and much in addition to be built to ease overcrowding and accommodate the needs of a growing population.

In the next ten years we need to build at least a million and a quarter new school classrooms, and as we make progress in educational techniques we will undoubtedly find that many of the facilities now considered adequate will need to be replaced or expanded. In addition, we must raise teachers' salaries substantially if we are to attract the number and the high quality of additional teachers we need to assure a good education for every child.

If teaching and the other professions are to be expanded in accordance with our needs, there must also be a vast expansion of training facilities and of colleges and universities generally.

Our present aspirations for adequate health care call for a vast increase in hospitals, clinics, nursing homes and other health facilities, and if we were to embark on a serious program of making the best health care available to every individual, regardless of his finances, we would undoubtedly find that current estimates of need were quickly multiplied.

Within the next ten years the traffic problems of our metropolitan areas will call for the building of whole new mass transportation systems.

We are just beginning to realize the magnitude of the physical tasks that face us in cleaning up the pollution of our air and our lakes and rivers, and there are further immense jobs to be done in such matters as flood control, development of hydroelectric power, extension of recreation facilities and other aspects of the conservation and development of our natural resources.

The elimination of poverty will not only mean a transfer of financial resources to the poor, but will require a great increase in the production of consumer goods and services. In addition, quite properly, all our people will expect and demand a continuing improvement in their standards of living, which also must be considered in terms of rising demand for goods and services.

The meeting of all these needs—and many others not here listed—in turn will require a sharp increase of investment in productive capacity and full employment within the framework of an expanding economy that will harness the full potential of both our material and human resources.

THE NEED TO PLAN

Nor can we expect to achieve our goals by accident, or by leaving problems to be solved in a hit-or-miss, piecemeal fashion, or by reliance upon the blind forces of the marketplace. If we are to achieve our goals we must establish priorities, engage in both short-term and long-term democratic planning, and allocate our resources to effectively implement our plans and achieve our priorities.

One of the first eventualities for which we must plan is the transfer of men and women from the service of war to the service of peace as a result of de-escalation and eventual termination of the war in Vietnam as well as the other measures proposed above for reducing defense expenditures. Without such planning, the release of men and women from military service and defense production could conceivably produce no better result than widespread unemployment.

It is to meet this need for planning that the UAW has expressed its full support for the proposed National Economic Conversion Act, introduced in the Senate by Senators George McGovern and Mark Hatfield. In a statement issued on May 11, 1969, the UAW International Executive Board unanimously declared:

"In Support of the National Economic Conversion Act—

"The International Executive Board of the UAW heartily endorses the National Economic Conversion Act introduced by Senators McGovern and Hatfield. This bill would put in motion now the machinery needed to prepare the national economy to convert defense production to civilian production as the Vietnam war is de-escalated and ended and the reduction in the armaments race becomes a reality.

"Even as the tragic fighting in Vietnam drags on there is yet the glimmer of hope for peace negotiations in Paris. The American people, as do the people of nations everywhere in the world, yearn for the end of armed confrontation and the advent of peace.

"The day must come when we can bend our energies and capabilities, not to the negative ends of war and destruction, but to the rewarding purposes of peaceful progress.

"The day must come when the escalation of the arms race will cease and the reduction in armaments and weaponry will give way to fulfilling the social and economic needs of people.

"There is a growing skepticism in the Congress and in the country toward the insatiable demands of the military establishment in an era when piling ever greater destructive power upon an already abundant capacity to destroy every living creature can purchase only greater danger, not greater security. Ultimate security rests not on the quality of weapons designed for overkill but on the quality of society designed to assure a good life for all.

"It is not enough, however, to hope for peace and a better life. It is necessary to extend the hand of friendship and through affirmative actions aimed at checking the arms race move vigorously toward the long-delay negotiations to limit and control the weapons of war and the deployment of strategic armed forces.

"As we search for the road to peace and arms reduction we must begin to plan now for the conversion of America's resources and manpower to meet the needs of an economy geared to peace. If the democratic way of life is to be preserved and revitalized, we must as a nation drastically reduce the priority now given to planning for future generations of missiles and raise to the highest priority our planning to assure the life and well-being of present and future generations of Americans.

"We must plan now for economic conversion of our defense industries to assure the least amount of disruption to the economy as peace 'breaks out' and to protect the jobs and security of the workers who will be affected.

"Today the United States is spending at the rate of \$30 billion a year for the war in Vietnam—spending which will be drastically cut back as the war is de-escalated and ended. One and one half million workers are employed in jobs producing armaments and ammunition for Vietnam. Ammunition alone accounts for an expenditure of \$4.5 billion. Many times that figure are spent producing the guns and the military aircraft—bombers, fighter planes and helicopters which use the ammunition.

"The one and one half million workers employed to support the troops in Vietnam, however, represent less than half the 3.8 million workers whose jobs are related to the nation's total defense effort. When negotiations for an overall reduction in arms succeed, we can anticipate the majority of the jobs of these millions of workers will be eliminated.

"What will happen to the workers in the industries now producing the weapons of war? Will they be turned out and left to fend for themselves? Or will the nation plan ahead to assure an orderly conversion to peacetime production to meet our human needs at home and protect the security of the workers? And where will the jobs come from to insure a decent income for the tens of thousands of returning soldiers?

"Just as the nation has an inescapable obligation to assist the men who will return from the fighting to adjust to civilian life, the nation has no less an obligation to meet the job needs of the workers who produce for defense and whose work will no longer be needed. This is not only a matter of economic necessity for the individual and his family, and the nation; it is a matter of national moral responsibility.

"There are unmet needs enough in America and the world to keep the wheels of industry turning, creating literally millions of jobs in civilian production as our defense production slackens. Housing, education, health care, creating a decent living environment, improved transportation and communication—these are but a few of the great social and economic gaps in our society. Conversion to a peacetime economy means more than the reduction in arms building; it means eliminating hunger; housing people in decent homes they can afford to buy; delivering

high quality health services to all of the people to ward off illness and to restore health; purifying the air we breathe and the water around us; in short, creating communities worthy of free men in a free society.

"The National Economic Conversion Act would establish a commission of cabinet members and agency heads in the executive office of the President to prepare government conversion policies and programs for the consideration of the President and the Congress, and to encourage a coordinated conversion effort of the public and private sectors. Under the Act, state, local and regional coordination would be encouraged and through provisions to be included in defense contracts, and grants, the Commission would be empowered to obtain information on contractors' capacity to convert manpower, facilities and other resources to civilian uses. Industry associations, labor unions and professional societies would be encouraged to provide similar information.

"The McGovern-Hatfield bill has been referred to the Subcommittee on Executive Reorganization of the Government Operations Committee of the Senate. The comparable bill in the House was referred to the Interstate and Foreign Commerce Committee.

"Favorable action on these measures without delay will help measurably to move our nation from war to peace as the fighting finally stops in Vietnam. It will help alleviate hardship, and disruption to people's lives and to the economy.

"Passage of this bill now will, moreover, be a hopeful signal to the American people and the world that this most powerful and wealthy of democracies has the will and resourcefulness to reduce its economic dependence on military spending and to assure full employment and full production in an economy geared to meeting civilian and peacetime needs.

"The UAW offers its full support behind the National Economic Conversion Act and urges prompt and affirmative action by Congress."

NPA PROPOSAL

A proposal along the same lines, but in a more detailed form, has also been made by the National Planning Association, of which I have the honor to be a trustee. Based on a special study made for the Association by the late Gerhard Colm and Luther H. Gulick, it proposes the following actions:

1. Establish in the White House a new post of Special Assistant (or Special Counsellor) to the President for Plans and Priorities;
2. Set up by statute, in the Executive Office of the President, an Office for Appraisal of National Goals and Programs;
3. Form a standing Citizens' Committee on National Goals and Priorities with members drawn nationwide from business, labor, agriculture, rural, and urban interests; and professional and research organizations;
4. Assign to a single Congressional committee—presumably the Joint Economic Committee—the dual task of examining the definition of national goals used in the formulation of government programs and the contribution of those programs to the achievement of national goals.

This represents an advance on the National Economic Conversion Commission proposed in the McGovern-Hatfield Bill, both in terms of the machinery it proposes and the scope of its responsibility. If the Commission is established first to meet the imminent need for planning the conversion of defense industries to peacetime use, the machinery proposed by NPA might very well grow out of it as the means of continued planning to meet our national goals.

In supporting in general principle this form of planning organization, I am not speaking in any way for the National Planning Association, and it has no responsibility for my comments.

This form of organization recognizes the existence of three different areas of responsibility in democratic planning—the Administration, the Congress and private business and other decision-making groups. The responsibility of the President is to propose programs for the federal government, and, through his Administration, to see that they are carried out. The responsibility of Congress is to enact—or refuse to enact—the necessary legislation, including financial appropriations, to receive reports from the President on the progress of programs and to make its own investigations into any matters which might require legislative consideration. Business and other private decision-making groups have a

double role—they have a deep interest in governmental decisions which may affect their interests, while at the same time their decisions have an important impact on the working out of government programs. It is essential that they be not only informed of the government's plans and programs, but involved in developing them.

THE PLANNING MACHINERY

The key administrative wing in the organizational setup for democratic planning is the Office for Appraisal of National Goals and Programs. Federal programs frequently are adopted in response to an immediate demand, and there is no assurance that these various programs, adopted at different times in response to different pressures, are internally consistent. There exist, for example, according to official estimates, at the present time 162 federal aid programs to state and local governments with about 400 subcategories, administered by at least 13 government departments, agencies and commissions. There is an urgent need for one central office at which all these programs would be analyzed and evaluated with regard to internal consistency, efficiency and how they fit in with our national priorities.

In a world of limited economic resources it is not possible to pursue all goals to the same extent at the same time. It is, therefore, necessary to establish priorities between goals. This decision on national goals and priorities is not a technical decision and it is not based on scientific knowledge. It is rather an expression of national aspirations and is based on value judgments. In our form of government it is an important responsibility of the President to propose national long-term goals and priorities.

Within the framework of these decisions on goals and priorities, it is necessary to establish targets and appraise these targets for feasibility, efficiency and internal consistency. This activity is nothing but a special type of planning. It is an indicative and concerted type of planning which is compatible with our free enterprise system and makes all parts of our pluralistic society more efficient.

Concerted planning requires: (a) planning of governmental policies and programs; (b) planning of investment and marketing programs by individual private enterprises; (c) planning for social and other improvements by numerous private groups and organizations. The planning of these three sectors is co-ordinated primarily through the exchange of information and basic assumptions and through mutual understanding of actual and potential capabilities.

Based on this mutual understanding the Office for Program Appraisal would establish targets of achievement which, wherever possible, ought to be expressed in quantitative terms. Periodically, the office would review and report the steps that had been taken to reach the targets and the progress that had been made.

The Office for Program Appraisal would be headed by a special assistant to the President who would be a person very familiar with the President's view on national aspirations and priorities. The special assistant would act as a two-way channel between the President and the Office for Program Appraisal but he also would be in continuous contact with the program aspect of work in the Council of Economic Advisers, the Budget Bureau and various other departments and agencies.

The Office for Program Appraisal should be a separate office, independent of the action-oriented agencies such as the Budget Bureau because dependence would endanger its function of critical review. At the same time, the Office ought to be in continuous contact with the action-oriented agencies. This is necessary because nothing is so damaging to public morale as the outlining of shiny long-range goals while nothing is done to assure that the necessary steps are taken to reach these attractive goals.

The functions of the proposed Congressional committee would be similar in many respects to those of the Joint Economic Committee—so much so that it has been suggested they be assigned to your Committee. The main difference would probably be that in examining proposals for national goals and priorities more emphasis would be placed on the long-term view. At the same time, the Committee would also have to keep in touch with the day-to-day and year-to-year progress toward those goals.

COUNCIL OF ECONOMIC ADVISERS ON SOCIAL AND HUMAN NEEDS

The Automation Commission, in its report on "Technology and the American Economy," proposed the establishment of a system of social accounts which to some extent would parallel with respect to our social needs and our social progress the *Economic Indicators* and annual Economic Report prepared by the Council of Economic Advisers concerning our economic needs and progress.

In response to that suggestion, the Department of Health, Education and Welfare issued a booklet, "Toward a Social Report," which makes a tentative preliminary survey of the state of our progress toward meeting the human needs of our people.

This is a hopeful beginning, but we believe Congress should carry it much farther. Just as Congress in the Employment Act of 1946 established the Council of Economic Advisers, outlined its functions and gave it the authority to carry them out, so now Congress, by similar legislation, should establish a Council of Advisers on Social and Human Needs, and authorize it to establish a system of social accounts.

Such a system would tell us where we stand at any time with respect to our social and human needs, and what progress we have been making toward meeting them. It would move us toward methods of measuring social ills, such as crime and family disruption. It would help us to measure the social costs as well as the economic benefits of technological change and other economic innovations, and to devise means of keeping the social costs to a minimum. It would help us to establish "performance budgets" in specific areas of social needs, such as health, housing, education, and the quality of our physical environment. It would provide indicators of economic opportunity and social mobility, to ensure that every person was in fact enjoying equality of opportunity within his capacities.

An annual Report on Social and Human Needs and Progress, in short, would provide a tool for social and human planning which could become just as valuable, and in fact essential, as the *Economic Indicators* and the Economic Report of the Council of Economic Advisers has become in planning national policy with respect to the country's economic course.

CITIZENS' COMMITTEE ON NATIONAL GOALS

The President and Congress ought to be further assisted in their decisions on long-range goals and priorities by a Standing Citizens' Committee on National Goals. The members of this committee ought to represent the main occupational groups (labor, management, professionals, farmers and consumers and youth.) The Committee also ought to provide representation for various private research groups and other nonprofit organizations. The members of the Citizens' Committee would be appointed by the President at the recommendation of the various private groups which they are supposed to represent.

The Citizens Committee would have primarily two functions:

(a) The Committee would discuss long-range goals and priorities to meet the social and human needs of the nation and for specific areas and it would recommend programs and policies which in its opinion were required to achieve these goals.

(b) The Committee would serve as a liaison group between the government and private groups.

Through the Citizens' Committee, the government would be informed, for example, about the future investment plans of corporations and these plans would eventually be reflected in government targets. On the other hand, through the Committee labor and management would be informed about future government plans and programs, and this information would contribute to the shaping of private plans for investment, etc.

The planning ought not to be limited to rates of growth, levels of GNP and efficient use of material resources, but should focus on improvements in the quality of life and environment. This requires recognition that the performance of the economy, full employment, stable prices, efficient use of resources, are only means and not ends. In the center of this type of planning is the human being, not as an object, not as "manpower" which is efficiently used, but as a subject who fulfills himself through creative work. This requires much more than the

elimination of all traces of discrimination and the providing of meaningful government employment for those who cannot find work in the regular labor market. The goal is rather complete social mobility where everybody gets an opportunity to do the kind of work he is most interested in, and capable of doing with maximum educational opportunities and training universally available, limited only by individual capacity. Such mobility ensures not only maximum personal satisfaction for the individual, but maximum efficiency in the use of manpower.

ECONOMIC BILL OF RIGHTS

For the individual, the promise of planning should be supported by a legislative recognition that in a society as affluent as ours there are certain economic rights which society has the material means to fulfill for every citizen, and that every citizen has the right to demand. Our nation's founders affirmed in the Declaration of Independence the inalienable right of all to "life, liberty and the pursuit of happiness." The Preamble to the Constitution states that this basic law of the land was ordained, among other reasons, in order to "establish justice, insure domestic tranquillity (and) promote the general welfare."

Today, almost 200 years later, these promises remain unfulfilled for millions of Americans. They are denied the decency, the dignity and the security essential to the pursuit of happiness. The misery of their lives in the midst of the wealth that surrounds them testifies that economic justice has not been established and the promotion of welfare has stopped far short of making it general. In direct consequence, domestic tranquillity is less a reality today than at any time since the Civil War.

It is clear that ringing declarations and general expressions of good intentions are not enough. In the America of 1968 and the remaining years of this century, no pledge of political rights will carry conviction to men or women who are denied the essential economic conditions for life, liberty and the pursuit of happiness in our time. Needed now is renewable and reaffirmation of America's covenant with her people coupled with mechanisms to assure that the pledges made long ago will at last be redeemed.

It is possible to assure the political and civil rights of our citizens largely because they are set forth explicitly and in detail in our Constitution and because the courts, particularly in recent years, have been vigilant in compelling other arms of government to respect them. It is time now to give expression, equally clear and equally enforceable, to the economic rights implicit in the Declaration of Independence and in the Preamble to the Constitution.

We believe that an Economic Bill of Rights must be added to the Constitution which will enable any person or groups of persons denied those rights to assert them through the courts as they are able now, under the existing Bill of Rights, to assert and to be protected in their political and civil rights.

Such a Bill of Rights should:

1. Establish the constitutional right of all Americans to a useful job, if they are able and willing to work, with the federal government acting as the employer of last resort; a wage sufficient to support themselves and their families in decency and dignity in accordance with the standards prevailing at the time, if they are employed; a guaranteed annual income sufficient to provide adequate living standards, if they are unable to work, either through the negative income tax program or some other appropriate means instead of the obsolete and degrading welfare system currently in effect which destroys the integrity of the family unit and offends every concept of human dignity; access to high quality, comprehensive medical care for all Americans by establishing a National Health Service; a good house in a good neighborhood, in a wholesome community, providing a total living environment worthy of a free people; an adequate educational opportunity for every American child and youth to facilitate their maximum growth and development including free college education.
2. Require the President and the Congress to take all reasonable steps, including provision for training of personnel and creation of facilities, to effectuate the above rights as promptly as practicable.

3. Provide that, after the lapse of a reasonable time, to be determined by the courts separately with respect to each of the above rights, any person or class of persons claiming to have been denied a right guaranteed by the Economic Bill of Rights shall be entitled to redress through the courts which shall be empowered to direct the appropriate agencies of the government to take such remedial action as may be found necessary in the circumstances.

MANPOWER POLICY

Effectively implementing the right to a job of every person willing and able to work, and making sure that each one's highest abilities are most fully used, requires a national organization for matching together efficiently available manpower and available job opportunities. This requires a nationwide, nationally oriented public employment service, equipped with all the modern devices of computerization and high-speed communication which play such an essential role in business. The machinery which enables an air line clerk to tell a customer in a few seconds exactly what seats are open on a flight leaving a city two thousand miles away and two weeks into the future, can be put to just as useful purpose by telling a job applicant what employment opportunities, requiring what skills and paying what wages, are available in the local and national job markets.

One of the major stumbling blocks to an effective public employment service—and thus to an effective integrated and well-rounded manpower policy—is the type of federal-state relationship to which we still cling in the manpower area. Although the funds through which it operates are federal, the employment service itself is essentially a state and local community operation. Labor markets today cut across community lines and state boundaries, and simply do not fit the state mold into which we continue to compress them.

TO INCREASE JOB ORDERS

In order for the public employment service to become the center around which all of our manpower activities revolve, it must first become a much more important instrument in the field of job placement than it is today. But it cannot do so unless its services are more fully utilized by both employers and workers. It must have more job orders—for more of the better jobs.

At the present time, too many of the better jobs are being filled through the private, fee-for-service agencies. This practice not only forces a prospective employee to pay a fee for a job, but it also interferes with the orderly processes of the labor market, and makes it impossible for the public employment service to develop the information and knowledge about the labor market that are essential for an intelligent handling of manpower activities.

REQUIRE LISTING OF JOB VACANCIES

Immediate steps should be taken to provide the public employment service with a better opportunity to serve our citizens. We should require employers, as a condition for obtaining reduced unemployment compensation rates under the experience rating provisions of the state laws, to list with the public employment service all job vacancies for which they intend to hire new workers (as distinct from vacancies filled by promotions or by recall of laid-off workers).

REPEAL ACTIVE SEARCH FOR WORK PROVISIONS

Employers are actually encouraged not to list job vacancies with the public employment service by the provisions of many state unemployment compensation laws which require claimants for benefits to make an independent search for work in addition to registering for work with the service. Thus public authorities herd unemployed workers to the hiring gates of employers who refuse to cooperate with the public employment service.

From the workers' standpoint, the provisions in question put them to the demoralizing and financially wasteful necessity of haphazard travel from one plant to another with no advance knowledge of whether or where suitable jobs are to be found. The active search for work requirement should be repealed where it now exists and its spread should be prevented. Congress can and should

act to eliminate the requirement by a simple amendment to the Federal Unemployment Tax Act.

A modern up-to-date computerized federal employment service is essential if we are to deal rationally with manpower problems in a world in which accelerated technology is going to require maximum mobility.

TECHNOLOGICAL CLEARING HOUSE

One of the major sources of new material means to meet our social needs will be technological progress in the economy. But new technologies bring problems as well as progress—the obsolescence of current skills, for example, and the need for development of new skills. Today we lack the knowledge of what is happening in technology which is essential if we are to prevent either the continued teaching of skills which are about to become unneeded or the development of bottlenecks due to shortages of needed skills. Neither government nor industry has the broad picture of what technological breakthroughs are currently taking place or are on the drawing boards for tomorrow, or what those breakthroughs are apt to mean in terms of such problems as worker displacement, relocation of industry, changes in training needs, or the myriad other impacts that technological change has on the economy.

What we need is an “early warning system.” Such a system could be provided by a clearing house for information on technological change. It would have the responsibility to gather information on a continuing basis concerning developments in automation, atomic and solar energy, new materials, new products, and other technological innovations. It would evaluate their actual prospective impact on employment opportunities, the location of industry, possible rise or decline of industries in importance, and the many other ways in which technological progress affects the economy, from educational requirements to international trade. The technological clearing house would have a close working relationship with the Council on Human and Social Needs and the Citizens’ Committee on National Goals.

LABOR-MANAGEMENT COMMITTEES AT THE INDUSTRY LEVEL

A mere listing of the subjects with which a technological clearing house would deal indicates how many areas there are in which technological change creates problems which are the concern of both management and labor. And there is a growing awareness in labor, management and government of the need to establish the means by which labor and management can meet together away from the strains and tensions of the collective bargaining table, to discuss such problems. Such committees ought to be established at the industry level as well as at the national level. They might perhaps function as special subcommittees of the proposed Citizens’ Committee on National Goals.

JOB OPPORTUNITIES FOR HANDICAPPED WORKERS

The need for both special training and special job opportunities for handicapped persons has always been recognized, although such programs, left largely to private organizations, have not been and are not now adequately supported. Advancing technological change will greatly increase the need for such programs and will require the acceptance of greater public responsibility for them. In addition to those who may have been physically or mentally handicapped from birth, or as the consequence of accident or disease, there will be groups of workers whose handicap consists of their inability to keep pace with the forward march of new technologies—those who are too old to learn new skills but not ready to retire, and those who are simply unable to meet the demands of the kinds of jobs readily available in the age of automation.

The Swedish authorities, who are dedicated to the cause of finding a job for every worker or potential worker, have found numerous solutions to this problem. Sheltered workshops offer not only a working environment within which the severely handicapped can function, but facilities for rehabilitation and training which often enable them to move out into the open labor market. Such workshops are operated both by private organizations and as a community respon-

sibility. For those less severely handicapped, employment is in outdoor jobs with low general demands, or in special jobs in public or institutional employment, such as archives work, where jobs which do not make excessive demands can be created. In some cases, people who cannot go out to work have been assisted to find work they can do in their own homes.

The object of such programs, adapted to the U.S., would be to enable handicapped persons to make their maximum possible contribution to society, for their own benefit and, it should be emphasized, for society's benefit.

IMPROVING THE "DELIVERY SYSTEMS"

Achieving a better life for all Americans is not just a matter of spending more money to meet our social needs. More money is essential, but in many areas of our society we need also a thorough-going change in the means by which we try to meet these needs—a change in the whole institutional organization. In short we need to improve the "delivery systems" through which goods and services to meet our social needs are provided. There is probably no area in which some improvements are not needed, but there are two areas in which the need for change is most glaring—health and housing.

HEALTH CARE

We all give lip service to the doctrine that in a society as wealthy as ours, access to good health care—to the best available health care—should be a fundamental right of every person. Yet millions of Americans do not have equal access to the high quality health services which our modern medical sciences know how to provide. They include not only the poor and the dependent, but large numbers of families in the middle income range.

This in spite of the fact that this country is already spending more on health care, estimated at \$58 billion in 1969, and a larger proportion of its Gross National Product, estimated at 6.5 percent, than any other industrialized nation in the world.

Yet the major indexes used as a basis for comparison of levels of national health show clearly that we are not receiving satisfactory health protection in return for our huge expenditures. We lag far behind countries that have and spend far less.

Thus, for example, our infant mortality rate is far higher than it should be. Ranked among the other nations of the world, we stand in sixteenth place. Our rate of 23.7 infant deaths per thousand live births compares with an average of 19.9 for the economically advanced nations of Western Europe. Forty thousand babies die every year whose lives would be saved if we were only to reduce our infant death rate to the level of Sweden's.

Among adults also, our health protection is inadequate. More American males die in the productive years between 40 and 50 than in fifteen other major countries.

The reason for our combination of high cost and inadequate health service is not far to find. We do not have a system of health services in this country—we have a chaotic non-system.

Only about one-third of consumer health services are covered by private insurance, and some thirty million Americans have no coverage at all. Tens of millions more are covered by totally inadequate plans. For example, though you may call upon health insurance to help meet the costs of illness, few if any programs make provision for preventive services.

Yet the costs of health care in the past ten years have risen faster and higher than those of any other major element in the Consumer Price Index—twice as fast as the average of all other items combined. It is one of the major inflationary forces in the economy.

The United States is now the only industrialized country in the world which does not have some form of national health insurance to assure all its people even a minimum guarantee of access to needed medical care.

With Medicare and Medicaid we have made a very small start in that direction, but these programs have many defects. We have experienced still sharper increases in medical costs because of the lack of established standards for meaning-

ful cost and quality controls, and the greediness of some providers of health services. Some practitioners are reported to have received \$200,000 and more in one year in fees under these programs. We are spending vast sums on limited, second-rate medical services, and even these are provided to beneficiaries not as a right, but on the demeaning basis of charity medicine.

What we need is a system of health services not organized to put doctors on easy street, but to provide adequate medical care for all who need it at reasonable cost to society.

We in the UAW have joined with other concerned citizens, including some leading members of the medical profession, to organize a Committee for National Health Insurance. We intend to mobilize the people of this country so that together we can achieve a comprehensive program of health services that will give high quality care to all the American people regardless of their personal financial condition. We have the capability of doing so. What we must do is to organize the economic and social mechanism which will make it possible.

HOUSING

America's housing crisis is staggering and it continues to worsen, for the forces of decay and demolition continue to outrun our efforts to rebuild and rehabilitate.

At a minimum, we must meet the objectives of the 1968 Federal Housing Act, which calls for a ten-year national goal of 26 million new housing units, including at least 6 million units for low income families. In recent years, we have produced only about 50,000 subsidized housing units a year, or only one-twelfth of the annual volume projected in the 1968 Housing Act. The National Commission on Urban Problems recently stated that there are 11 million substandard or overcrowded housing units in the United States—and it called this a very conservative estimate.

The shame of the nation is the state of our cities. Our center cities continue to decay. These cities more and more consist of spreading ghettos that are enclosures of poverty and racial discrimination. These ghettos breed permanent despair, and rip the fabric of our society.

Our goal is to build livable communities that provide and assure the basic rights and amenities of a civilized society to all the American people.

We must not only construct an adequate number of low cost housing units, but we must achieve a proper mix of housing, industrial and public facilities coupled with the delivery of essential social services in sufficient quantities.

The task before America is long and difficult. It will require massive resources both from the federal government and the private sector. But money alone cannot accomplish this task. Substantial reforms and increased involvement of people at all levels of our society will be needed to cure our housing ills.

Both the public and private sectors must make a more significant and greatly increased contribution in a cooperative and coordinated carefully planned attack on America's housing crisis.

We must recognize that we cannot hope to meet housing needs of millions of American families unless we abandon old methods and practices and apply to this problem new concepts, new ideas, new social inventions.

(1) We must end the scandalous speculation in land which is inflating land cost, through the creation of urban and regional land banks.

(2) We must develop long range financing of housing to reduce the cost of mortgage money and general financing.

(3) We must face up to the problem of antiquated and restrictive building codes which fragment the housing market and pyramid the cost of housing. A national system of performance standards to insure the highest standard and quality and to meet the needs of geographical conditions should be developed to cover all federally financed housing construction in order to facilitate the assembly of a mass market so that the economies of scale can be achieved in the construction of housing.

(4) The federal government should allocate adequate resources and create an appropriate organization to facilitate and encourage massive research and development in the housing field—in design, materials, new construction methods, maintenance problems, land utilization, water, sewage and

environmental problems—and enlist the fullest cooperation and participation of the private sector and the universities in this effort, with appropriate opportunity to facilitate the participation of American consumers.

(5) We must apply to the housing industry our most advanced technological capability and managerial and productive know-how, our most creative product design capability, and the use of new materials. Only in this way can we reduce the cost of construction and increase the volume needed to make high quality, attractive housing available at a price that millions of low and moderate income families who desperately need housing can afford.

A nation that has the technological capability of developing and producing a space vehicle with all the sophisticated scientific technical gear needed to put a man on the moon certainly has the technical capability of building high quality, attractive houses more efficiently and more economically.

America will place a man on the moon in the next few months. We shall do this because we made a national commitment to do so. No less a national commitment is needed to meet the urgent challenge on the housing front and the many other domestic problems.

We have pledged ourselves to an all-out effort at the national and local community level to mobilize the national commitment needed to meet and solve the nation's housing needs.

We are prepared to work with all concerned groups, such as the National Urban Coalition and local community groups, in a cooperative effort to maximize community participation. We will join in contributing seed money and will cooperate to make pension funds available for the financing of housing. We will give special emphasis to the special housing needs of retired workers and low and moderate income families, of migratory workers.

We will work to build well planned communities and neighborhoods that will provide a full range of opportunities for quality education, adequate transportation, community facilities, social services and equal employment opportunities.

We will support efforts to create a national housing market of a volume large enough to achieve a flow of production that will provide increased employment opportunities to workers in the inner cities and will provide year-round employment to workers who have been victimized by the seasonal nature of the construction industry.

Making necessary administrative breakthroughs requires promptly setting some basic comprehensive policies at the national level. Such actions are prerequisites for meeting the Congressional promise of providing decent housing for all Americans within the next 10 years.

We urge the Administration to support, and Congress to enact legislation to achieve the following:

(1) fund the Housing Act of 1968 fully at the levels authorized by Congress;

(2) fund programs in advance so that cities after having planned and programmed will have the capability to make those plans operational;

(3) institutionalize advance land acquisitions and land banking so that land will be obtained for housing and other public purposes. A rational land policy should empower the Federal Government to: (a) pre-empt local zoning and building codes in federally subsidized housing; (b) assemble large parcels of land through direct acquisition of that land for subsidized housing and related facilities; (c) pay the cost of relocation, demolition and acquisition.

(4) the Federal Government should exercise its authority of eminent domain to acquire land directly to assure the construction of low cost housing;

(5) enact a uniform and modernized building code based on *performance standards*. The legislation should formulate and approve standards for the construction of buildings, to provide a mechanism for testing and approving technology innovations, provide a system for evaluating experiences of public and private programs effecting building, provide for research and building technology, and assemble and disseminate technical data relating to standards and building technology;

(6) reduce the general level of interest rates on indebtedness for housing. Inflation must not serve as the cover for rising interest rates. The housing needs of millions of American families must not be sacrificed in the fight against inflation.

(7) enact a uniform relocation law that operates on the principle that no one will be displaced unless relocation housing is available which meets the wishes and requirements of those displaced. The basis of compensation should be "equivalent value" so that owner occupants can acquire decent housing without incurring increased indebtedness:

(8) guarantee tenants in publicly assisted housing their rights to organize and bargain collectively with housing management on a basis that prohibits interference, intimidation or retaliatory evictions;

(9) expand housing choice by overcrowding suburban barriers to low and moderate income housing;

(10) develop a federal system of incentives and sanctions that will, in fact, achieve open housing.

We also urge states and localities to meet their housing responsibilities. We view such action as a necessary supplement to concerted national action. Each state should have an Urban Affairs Department staffed by capable people.

The soundest programs, no matter how well conceived, must be administered at the local level. Federal policies are not self-executing.

EDUCATION

In my testimony before the Joint Economic Committee on the President's Economic Report, I stated:

"The quality of education in urban public schools and its close tie to the economic and social development of our urban communities ranks high among our major domestic problems. The enormity of the needs will require massive injection of federal monies, as well as creative innovations to deal with the special problems of the disadvantaged child in our urban areas."

According to the Department of Health, Education and Welfare, in recent years our construction of public elementary and secondary school facilities "has done little more than keep pace with the urgent demand for facilities created by enrollment increases." If we are to catch up with the backlog, reduce overcrowding, eliminate makeshift classrooms and take care of continuing obsolescence, we must be prepared to expend at least \$26 billion over the next ten years or less.

At the same time we must be prepared substantially to increase teachers' salaries if we wish to obtain both the numbers and the quality of teachers we will require to meet our expanding educational needs.

In the field of higher education, also, there must be great expansion if we are to achieve our goal of making available to every young person the fullest amount of educational opportunity he or she is able and willing to make use of.

In practical terms, this means that we must be prepared to make available to every qualified student a full course of study at university, college or an equivalent institution—and we must be prepared to make it financially possible for them to attend.

And the major share of these costs must be carried by the Federal government, which alone has the financial resources to do so. In fact, State and local governments must be relieved of many of the costs which are now causing taxpayers to revolt against any increases in educational expenditure at the local level.

The special educational problem of our schools in the center cities was pointed up by a *New York Times* report (June 6, 1969) on "School Turmoil" in that city. It said:

"The city school system, in the view of most authorities, is failing to meet the major challenge that it faces: the education of masses of seriously disadvantaged black and Puerto Rican children.

"In contrast, these authorities agree, the city's schools work as well now as they have in the past for those white middle-class youngsters enrolled in traditionally stable and homogeneous neighborhood schools.

"This difference, more pointed than ever because the Negro and Puerto Rican school population has passed the 50 percent mark and is still growing, has led to demands for change that have shaken not only elementary and secondary schools, but also the municipal colleges.

"As a result, the school system . . . and the colleges . . . have become both a battleground and a laboratory for the complex social problems that beset the community at large."

This dilemma, while it may have reached its most critical peak in New York City, is a national one. And while it cannot be solved without massive infusions of Federal funds, it cannot be solved through that approach alone, because there is evidence that merely upgrading the infrastructure or physical properties of the educational system—providing new buildings, sufficient supplies, etc.—does not, by itself, produce significant results in upgrading the achievement of children.

James S. Coleman, co-author of "Equality of Educational Opportunity," undertaken by the Office of Education under a requirement of the Civil Rights Act of 1964, has discussed some of the implications of the report's findings, *The Public Interest* (Summer, 1966 and Fall, 1967). He writes:

" . . . our society is committed to overcoming, not merely inequalities in the distribution of educational *resources* (classrooms, teachers, libraries, etc.), but inequalities in the opportunity for educational *achievement*. This is a task far more ambitious than has even been attempted by any society:—not just to offer, in a passive way, equal access to educational resources, but to provide an educational environment that will free a child's potentialities for learning from the inequalities imposed upon him by the accident of birth into one or another home and social environment."

In recent years, attention has been for a time focused on one or another of proposed solutions to the challenge of providing equal educational opportunity. The trend has moved from bussing children in order to promote integration, to decentralization of urban school systems to enable the ghetto neighborhoods to exercise direct controls over their schools. There is no good reason why ghetto residents should not have as much direct control over schools as residents of higher-income suburban communities, although there are difficult problems that remain to be solved in reconciling such neighborhood school autonomy of one degree or another with citywide boards of education and teachers' unions organized on a citywide basis.

The larger question of how to upgrade the achievement of children will not, however, the evidence suggests, be fully answered either through integration of schools or through a decentralized approach to inner-city school administration.

The so-called Coleman study strongly suggests that the schools tend to perpetuate the disadvantages of deprived children in the inner city and to confirm the advantages of middle-class suburban youngsters. Coleman says:

" . . . the results indicate that heterogeneity of race and heterogeneity of family educational background can increase the achievement of children from weak educational backgrounds with no adverse effect on children from strong educational backgrounds."

Such integration therefore can bring much greater equality of opportunity for achievement:

" . . . In the large cities, however, where lower-class (i.e. in the economic sense) Negroes are both concentrated and numerous, this approach quickly exhausts its possibilities. There are simply not enough middle class children to go around."

Coleman says:

"It is . . . a simple fact that the teacher cannot teach beyond the level of the most advanced students in the class, and cannot easily demand performance beyond that level. Thus, a comparison of Negro students (having similar family backgrounds) in lower class and largely segregated schools with those in middle class and often integrated schools shows that the former get higher grades than the latter, but their performance on standardized tests is lower. The student in a lower class school is being rewarded more highly for lower performance—not as much can be demanded of him."

Even with the benefits of integration, however, the child disadvantaged by poverty and/or a ghetto environment is not being provided with equal opportunity for achievement:

"... even in socially or racially integrated schools a child's family background shows a very high relation to his performance. The findings of the Report are quite unambiguous on this score. Even if the school is integrated the heterogeneity of backgrounds with which children enter school is largely preserved in the heterogeneity of their performance when they finish. As the Report indicates, integration provides benefits to the underprivileged. But it takes only a small step toward equality of educational opportunity."

What is needed is "a more intense reconstruction of the child's social environment . . ."

Reconstruction not only of and in the schools but of the surrounding society must therefore go hand in hand, a concept which was the original inspiration of the Model Cities program.

Reconstruction of the social environment of the child requires a many-faceted approach. As for the school environment, Coleman calls for "new kinds of educational institutions, with a vast increase in expenditures for education—not merely for the disadvantaged, but for all children." Among such new institutions he specifies educational parks; private schools paid by tuition grants (with Federal regulations to insure racial heterogeneity) public (or publicly subsidized) boarding schools, such as the North Carolina Advancement School. He also suggests the concept of the "open school," the school not as a building into which the child vanishes in the morning to appear again in the afternoon, but as a point of departure or base of operations. Under such a concept, the teaching of the two basics, reading and arithmetic, would be opened up to private contractors on a payment-by-result basis. He believes that the same approach could be extended to a number of core subjects at the high-school level.

Under this concept of the open school, parents, the consumers, would have the choice of sending their children to the private contracting agency on released time, or of leaving them wholly within the school. The school would find it necessary to compete with the system's external contractors in providing a better education, and parents in the central cities, able to exercise their power of choice, would be to a degree liberated from what presently appears to be a prevailing sense of powerlessness.

If these and other innovative approaches to the challenge of providing educational opportunity for achievement are to be given a chance, we must face up to the need for a great increase in educational research and development. HEW's "Toward a Social Report" states:

"... Progressive industries often spend 5 to 10 percent of their funds on research and development. But expenditures on education research and development are now miniscule, perhaps a half of 1 percent of the total education budget.

"... There is a need for major departures, for developing whole new curricula and approaches to education, for trying the new approaches with real children and real schools. This kind of effort is expensive, by the present standards of education research, although not by the standards of military and industrial and development."

The reconstruction of the social environment of the child, however, cannot be confined to experiment in the schools. It must take place as well in the surrounding economy and culture. As "Toward a Social Report" suggests, how much a child learns depends "upon his mother's diet before he was born," on the quality of the television programs available in the home, on the quality of housing and the level of income of the child's parents:

"Higher income and better jobs for parents may have more influence on their children's learning than any 'compensation' which can be given to the children themselves . . . Improved housing arrangements which give children from poor families the opportunity to attend schools and live in neighborhoods with children of different social and economic status may also be of crucial importance."

And there is also the prospect of an even more ambitious reconstruction of the child's social environment—and therefore his educational achievement—in the recent proposal, in a report prepared by the National Committee on Urban

Growth Policy, headed by former Congressman Albert Rains, calling for a massive Federally aided program of constructing 110 new cities. These cities will be needed in the next 30 years to cope with America's population growth. We should begin now to acquire the land and prepare the ground for such new communities, as other countries have done and are doing. And it should be one of our major objectives not only to build new cities in the physical sense but new communities providing a wholesome democratic environment where children will not be handicapped in learning and fulfilling their potential by the restrictions and insufficiencies of a world they never made.

THE QUALITY OF OUR LIVING ENVIRONMENT

If the human race is to survive and realize the great promise that science and technology offer us, we must act aggressively to reassert the sovereignty of man in his living environment, to make the welfare of human beings the central purpose of all human activity.

If we continue to destroy our living environment by polluting our streams and poisoning our air, we can put the survival of the human family in jeopardy. We may be the first civilization in history of man that will have suffocated and been strangled in the waste of its material affluence, compounded by indifference and social neglect.

Our water crisis is of much more serious proportion than the average American understands. The Great Lakes contain 20 percent of the total fresh water supply in the whole world, and Lake Erie is already more than 25 percent dead because of the millions and millions of pounds of garbage being dumped into it every day, two-thirds of which is industrial waste and poisons.

Air pollution threatens the health of our people in every urban area and its damage to plant life is helping, along with other abuses of our environment, to turn our cities into asphalt jungles.

We need an overall resources policy dealing with air and water pollution, water reuse, desalting, soil control, land use and natural beauty. To develop such a comprehensive policy, major gaps in knowledge and techniques must be filled through greatly accelerated research.

The urgency and gravity of the problems posed by continued, unchecked pollution of our resources demand immediate action at every level of government not only to reverse our present destructive path, but also to take positive, constructive steps to safeguard, and, where possible, to restore the great natural resources which sustain our life and well-being.

The following actions should be taken :

We must develop a national, overall policy of conservation through creation of a Federal Department of Natural Resources that would consolidate in one agency responsibilities that are presently dispersed among many agencies with resulting overlap, conflict and dispersion of authority. Such a department would deal with conservation of our natural resources and with all aspects of pollution of soil, air and water; and would develop a program of priorities for solving the problems in these areas.

Congress must enact legislation to curb pollution. These must be strong measures, containing stringent enforcement powers. Federal legislation must be implemented on both a state and local level and policed with uniform, adequate force.

The broadest possible citizen participation must be encouraged. On a national level, there should be a Council on Environmental Quality, composed of laymen and experts, to serve as a link between the federal department and the people. A Peoples' Lobby Against Pollution must come into being, based on those citizens' groups already concerned in this matter and broadened as still other groups become aware of their stake in our resources.

A Federal Recreation Service, housed in the Department of Health, Education and Welfare, or Housing and Urban Development, should be established to create conditions, facilities, and programs to help make leisure a more rewarding aspect of life. The Service would make federal grants available for such purposes.

Land acquisition programs must be extended. Our recreation areas shrink as our population grows, and yet our current federal budget does not contain a single new proposal for national parks, seashores and recreation areas. Before potential sites are lost forever, the government must act on already-designated sites and acquire the additional sites we so desperately need.

Positive steps must be taken to make these programs financially sound. The immense revenue potentials in our off-shore oil and oil-shale reserves can be utilized in a manner already spelled out in Senate Bill 1401, presently before the Congress.

Strict regulations should be adopted to enhance natural beauty in highway design and construction and in urban and metropolitan planning, and to rid the country of the visual pollution caused by billboards, junkyards, and land disfigured and laid barren by strip-mining.

Protection of the natural environment which sustains life on this planet requires international cooperation as well as national resource policies. The United States should participate vigorously and wholeheartedly in the International Biological Program, a five-year cooperative program involving over 50 countries in efforts to fill gaps in present scientific knowledge regarding the natural environment and the impact of that environment of science and technology. Congress should make adequate funds available for American participation in the IBP.

To save our last frontier, the oceans, from the short-sighted plundering which has done so much damage to our land environment, the United States should proceed cautiously in exploiting resources in and under the sea and should make a serious effort to reach international agreements toward the same end.

CONCLUSION

We face today one of the gravest choices in our nation's history.

We can continue as we have been going on, piling up weaponry sufficient to incinerate the earth a dozen times over. We can continue to submit to every demand of the military for more and more and more. We can continue to let waste and inefficiency and greed take precedence over our true national security.

We can continue to starve our society of its most essential needs—good homes, good health, good education, a clean, safe living environment. We can continue to let poverty and frustration simmer and fester in the slums and ghettos of our cities.

Or we can put our priorities in proper order.

Recognizing that there is a need for military security, we can rank that need in its proper place along with all our other urgent needs.

We can insist that the same kind of value judgments we are used to applying to all other forms of spending be applied also to military spending.

We can recognize also that the only true security is that of a stable society in a secure world. We can seek out those of like mind in other countries, even those behind the Iron Curtain, and begin through discussion and negotiation to find a better alternative than the arms race.

And if we do that, then we can release for useful purposes those vast amounts of materials and the tremendous human effort which is now being wasted in preparations for destruction. We can build in America, and help to build throughout the world, a society of peace, of justice, of equality and of material prosperity such as men have scarcely dared to dream of.

We have the means at hand.

Let us demonstrate that we also have the will.

Chairman PROXMIRE. Mr. Reuther, I think you recognize that much of the size and commitment of our resources to the military is based on our concern about the threat from the Soviet Union. I doubt if there is anybody in the labor movement who has fought communism harder or more effectively than you have. I doubt if there are many who have had a chance to study Russian communism at first hand as you did in the 1930's. And as I recall, you came back from Russia and you warned about how this Soviet economy could represent a

challenge to us. How do you, based on your experience in America and your knowledge of the Soviet Union, how do you assess this threat to us, and how much do you feel we must commit ourselves to protect this Nation against it?

Mr. REUTHER. I worked in the German underground in Hitler's time, and I worked almost 2 years in the Soviet Union under Joseph Stalin. So I know something about totalitarianism. I believe that we have reached that point where the Soviet Union needs relief from the arms race as desperately as we do. When you look at the fact that our gross national product is almost double the gross national product of the Soviet Union, it means that the arms race puts a double economic burden upon them. And I think that a revolution of rising expectations is working in the Soviet Union, I think when the Soviet citizen gets a little more of the consumer goods and a little more taste of the good life, that they are going to continually pressure to try to get larger resources there allocated to domestic production and a reduction in the resources going to military purposes. And this is why I believe that we are at that turning point in the relationship between the super powers, between the United States and the Soviet Union, where it would be a tragedy not to recognize that they too are beginning to understand that their national security does not reside in the continued escalation of the arms race, and that ultimately what we need is a peaceful competition between our competing social systems.

You can't get a moratorium on the power struggle between the social systems. Their social system is going to challenge ours, and ours is going to be challenging theirs. What we have got to do is remove this from the insanity of the arms race that no one can win, to a peaceful contest to see which social system can best harness man's creative genius in the field of science and technology and translate that capability into peaceful human terms. Because only that kind of society has a right to the loyalty and the support of the human family.

Chairman PROXMIRE. You see, what I am concerned about is—on the assumption that we are able to get an agreement with the Soviet Union on arms control, it will be limited as all our agreements have and should be limited—we still will have to make a very substantial commitment to defend this country. You have spoken about \$10 billion reduction—which, incidentally, is about the same level as has been recommended by the *Congressional Quarterly*, and also by Mr. Benson of the GAO and others—then you talk, however, about—this is the first step, one that presumably we can take rather swiftly perhaps this year—then you suggest that we can make further cutbacks.

Now, would these depend basically on agreements with the Soviet Union, or do you think that we could proceed on the basis of what we know now?

Mr. REUTHER. Well, claiming no competence in this field, based upon what I have read of people who I do respect as having special competence, I believe it is possible to bring about immediately a \$10 billion reduction in our military expenditures without in any way weakening our posture in terms of national security.

Obviously if we can get a deescalation of the tragedy in Vietnam and ultimately peace there, this will also bring about the opportunity for very sizable additional reductions. And I would hope that the Congress will insist that those reductions in expenditures related to Vietnam do not go into financing new generations of weapons systems, but are diverted to our urgent needs in the cities, because that is where the greatest threat is.

Chairman PROXMIRE. I was just going to say, that raises the next point. As you know, five States have a very large proportion of all of our defense work. And as you also know, there is a military constituency. Some people say it shouldn't be the military industrial complex but the "military-labor union-university-industrial complex." You know, because the union you represent does a great deal of defense work. How can we get at this problem of persons who feel economically dependent on defense work, who feel insecure if we make these cut-backs for economic reasons, they feel insecure?

How can we get at this, or can we get at it effectively?

Mr. REUTHER. I think we can. First of all, I think that the worker involved in a defense establishment has a more justifiable economic basis for feeling insecure than the chairman of the board of directors of that corporation. His reserves are somewhat limited by comparison. And we have gone to our people—we took a position on the ABM because we felt that that would tend to escalate the nuclear arms race just when there might be a historic opportunity to de-escalate it—we went to our people, who are participating in the production of those elements and components that go ultimately into the ABM system, and we said to them that we think you would be much better off, America would be much better off, if we could find a way to reduce the level of arms, and convert your plant to the production of some useful domestic product. And we have received support. Now, they want to know how they are going to be protected in the transition, and this is why we support the National Conversion Act introduced by Senators McGovern and Hatfield, because we don't feel that any wage earner and his family ought to be expected to absorb the economic impact of the shift from defense to civilian production. That is a social cost that we ought to all share. If you can go to a wage earner who is working on a nuclear warhead and say to him, you can produce \$20 billion worth of those, but it won't raise your living standard one iota, it won't improve the educational opportunities of your children, it won't improve your medical care, or the quality of the living environment in your neighborhood, you can only do that by producing useful things in peace time, and if you can persuade a worker in a defense plant that if we make the transition responsibly so he doesn't get caught in the middle, he would be better off making civilian goods—if we can persuade him, then why can't we persuade industry?

I think we can. I think that what happens is, we always take the easier course, the line of least resistance. And I don't believe that we can survive as a free society and preserve the values that we are committed to unless we are willing to make the hard decisions as well as the easy decisions. And looking at the military budget is a hard decision that I think we have to make.

Chairman PROXMIRE. Can you go a step further than this, can you say, if we are going to have a really strong country militarily as well as socially and economically, that we would be better to spend perhaps less on defense directly and more on education, more on health, more on rebuilding our cities in these other areas?

Mr. REUTHER. I think so. It goes without saying that we are in greater jeopardy at home than we are in the world. The world is deeply troubled. But America is also deeply troubled. And I believe that only as we have a balance in the allocation of our resources between military needs and domestic needs can we truthfully be doing what I think is essential to preserving the national security on both fronts. Education, health, decent housing, a living environment that is worthy of free men, all of these things are inseparably tied together with national security. You can't just say, national security is something which the Pentagon has a monopoly on. HEW is just as deeply involved in the security and the future of this country as the Pentagon.

I wish they had the same kind of resources allocated to them.

Chairman PROXMIRE. Don't we also recognize that with the rejections we have in the draft, those boys who don't have the mental equipment or the physical equipment to serve, the fact that some of our outstanding military representatives like Admiral Rickover say that our greatest need in the services is better educated people, more skilled people? We see so often the incompetence in defense contracting where they can't do the job because apparently they don't have the educational background or training and capability to do it. Additional education can be justified simply as a matter of having a stronger military force. But in addition the other areas which you stressed should get more attention. But just from a strictly military standpoint, isn't there a strong argument here?

Mr. REUTHER. I would think so. I would think that if we were just exclusively interested in trying to build the strongest possible military posture, we would go all out in terms of education, because in the final analysis our strength resides in developing and facilitating the growth of human capacities.

Chairman PROXMIRE. My time is up.

Senator Jordan?

Senator JORDAN. Mr. Reuther, you have made a very fine statement. And I am sure that all of us would agree with the goals that you have set out, or most of them at least, and the need for a reallocation of our resources to a more humanitarian purpose.

We know that the superpowers have the capability to incinerate each other. The question that bothers me is, how do we deescalate the arms race? How do we assess the intent of our adversaries? How do we get over to them what our objectives are, and what our aims and our ambitions are?

In your contacts through international labor organizations have you seen the slightest indication of the Soviet willingness to deescalate?

Mr. REUTHER. To begin with, I think that they are the prisoners of the same escalation of the arms race that we are. And they know that they can't provide their people with the things that they want and

need desperately if they spend those same resources in the arms race. We have the same problem. And it seems to me that just as a matter of commonsense and human survival, both the great superpowers must recognize that somewhere, somehow, they have got to put an end to the insanity of this arms race. I think that there are no simple answers.

And I am under no illusions about the Communists. I have fought them, I know something about them. But I do believe that there is a thing called the survival of the human species which transcends any differences in ideology, and that no one can survive if we go on. And I think that that is the thing that ultimately might move the Soviet Union as it will move us.

Secondly, I think we have to probe and negotiate. I know a great deal about negotiations. I have spent 33 years—I perhaps have spent more time at the bargaining table with major corporations than any living American. And we bargain with more large corporations than any other union in the free world.

Now, if you go to the bargaining table knowing that the other person is hopeless, is just locked into a fixed position, and there is nothing you can do, then you are going to have a strike and you are going to have trouble. But if you go in there knowing that there are problems, that they have got their point of view, and their fears and their uncertainties and their insecurities, and they know that we have got the same things on our side, and you begin to probe. If you find that this approach is a blank wall you probe somewhere else, you just keep probing. And the key to successful negotiations is to maintain flexibility in your tactical posture, never get boxed in procedurally.

It is the substance of what you are trying to do which is paramount, and not the procedural approaches. And it seems to me that since we are the strongest of the free nations in the world, and we have a heavy moral responsibility at this turning point in the history of the human family to make an all-out effort to probe, to find out, are the Soviets prepared to discuss meaningful reductions with proper safeguards. No one wants to tie our hands and go into this thing blindfolded. But we have the obligation of probing new initiatives.

Why can't we have as much courage in pursuing the peace as we have courage on the battlefield?

And we have got to try and try. If the Soviet Union responds affirmatively, then we will make progress. If they respond negatively, we will be no worse off, except that history will record that we tried. I would rather try, and hopefully succeed—I personally think the Soviet Union desperately needs a deescalation in the arms race, because they can't meet the new pressures. Their society is changing, because their people are beginning to learn more about the outside world, and they are demanding more of the good things of life. And they can't provide those things if they go on spending at the current levels for armaments that they are spending. And this is why I believe that we are at a place in history where we ought to make a major probing. Hopefully it will be successful.

Senator JORDAN. I agree with you that they should turn some of their efforts away from the manufacture of war implements and muni-

tions, and into consumer goods. I agree with you. But to get back to my question, have you seen even the slightest indication that the people in Russia want to do that?

Mr. REUTHER. I don't think you have to worry about the people of Russia. If you took a poll of the citizens in the Soviet Union today and you said to them, would you favor your government sitting down with the United States and all of the other nuclear powers and working out an agreement that would facilitate a reduction of the arms race so that those resources could be used for housing and schools and all the other things we need, they would vote, like the American people, overwhelmingly. But you must understand that they have fears and insecurities just as we do. Because we don't really know each other. This is one of our problems. We have all been badly conditioned and brainwashed by the cold war. And we are all prisoners of the cold war and the arms race.

And so we have got to break out of that prison.

Now, it is not good enough to say, when they do it we will do it. We have got to provide the initiative and the leadership to try and bring about a breakthrough from this prison that we are all imprisoned in. And that is why I believe that if we are going to wait until we get positive, tangible, absolutely foolproof demonstrations, then we are all in trouble. And then there is some question about future generations, of whether they will even be around.

I put some significance on the fact that the first time since the Bolshevik Revolution on the Red Square in Moscow they did not have a military parade, flexing their missiles and their muscles. Now, that may just be nothing. It may be a very shrewd tactical maneuver on the part of the Communist propagandists. I don't know. But I think the Soviet Union has problems. They have deep social and economic problems at home, and they have China. They have got a conference going on in Moscow right now. They are making speeches, general speeches. Every Communist has to make a speech when he talks to other people, about Wall Street imperialism and the warmongers in America. That is just part of the rhetoric. But most of the tension is in the relationship between the Soviet Union and Red China.

Now, I don't think we ought to try to exploit other peoples' problems, because I don't think that is a very sound policy. But I think we have to recognize that the Soviet Union does have serious problems that multiply and become more difficult with the escalation of the nuclear arms race, and that therefore we ought to find out whether she is prepared to reduce the level under circumstances where we can do that.

Now, if parity is what we want—and I am glad we finally accepted the word "parity," we played with a lot of words during the campaign—but if parity is what we want, and our relative security as a nation in terms of military power and capability is at this level of parity, and we can reduce it to a lower level and still have parity, it is parity that gives us security, not the level of total disruptive capability. And if the Soviet Union will join in that effort, this can be the most significant thing that we can provide the leadership for.

Senator JORDAN. I agree with you that there is some significance to the fact that was no armament in the May Day parade. But how do we offset that against the positive action of the military invasion of Czechoslovakia?

Mr. REUTHER. Well, I just think that that was the most tragic thing that has happened in a long time. And I think it just shows you how insecure the Russians feel. For a while we thought all the Russians were 12 feet tall—but they are so insecure that they couldn't permit the growth of freedom in a little country like Czechoslovakia.

Now, why were they concerned about freedom in Czechoslovakia? If they could have isolated that they would have forgotten about it. They were worried because freedom is the most contagious thing in the world, and they knew that if the young people and the people of Czechoslovakia generally were able to enjoy an increasing measure of political and individual freedom, that would contaminate people in the Soviet Union. They moved in Czechoslovakia because they had their own problems. And this again, you see, is why we ought to take the initiative. The Soviet Union cannot keep secret our peace initiative. And if we were pressing hard for conferences to reduce the level of armaments, every Russian citizen, every young Russian would know that we were doing that. And that would begin to create pressures in their society. They are not immune to these pressures. They may control them with an arbitrary fist, but they are not immune to them. And so Czechoslovakia is a great tragedy, but we should not permit that, I think, to cancel out our efforts to try to probe whether or not the Soviet Union is now prepared to engage in responsible and meaningful arms control negotiations.

Senator JORDAN. Thank you. My time is up. I agree with you that survival of the species is the greatest priority. How we achieve it is the prime problem.

Mr. REUTHER. Everything else is academic if we fail in that.

Chairman PROXMIRE. Congressman Moorhead?

Representative MOORHEAD. Thank you, Mr. Chairman.

Mr. Chairman, I have served in the Congress now for 10 years, and I don't believe I have ever heard any testimony before any committee that has been more eloquent than the testimony I have heard today, and I congratulate you, Mr. Reuther.

Mr. REUTHER. Thank you, Mr. Moorhead.

Representative MOORHEAD. In your written statement, you say that you and the UAW think it is time for the American people and the Congress to blow the whistle on the military budget and spending. And I quite agree with you. I think the time has finally come. And I would stress even more the blowing of the whistle by the American people than by the Congress. I think that on this issue the people are ahead of the Congress. And I think that testimony like yours presented to the people will cause them to react even more strongly, and then the Congress will respond. I think that the chairman of this subcommittee has given us, here, an opportunity to do a little whistle blowing. And I think that is extremely important, and one of the great functions that this subcommittee can serve to give people like yourself the opportunity to present such eloquent testimony.

Concerning the future structuring of this debate, you suggest an office for appraisal of national goals and programs. Would that office as you conceive of it do the job of balancing the relative benefits to the American people from, let's say, spending money to clean up Lake Erie on the one hand, or having the last increment of our attack carrier force on the other? Would this be one of the jobs, or would it only be balancing the various civilian budgets one against the other?

Mr. REUTHER. I think it would for the first time provide an appropriate mechanism through which the domestic needs and the domestic priorities could be brought into sharp focus so that the American people would know that they are choosing between the level of education, the level of housing and the level of living environment versus those two or three new carriers. So that you would have an advocate for the domestic priorities that would be competing on something like a parity basis with the people who are beating the drums for military expenditures.

Representative MOORHEAD. This is very important, because testimony before this subcommittee was that the Bureau of the Budget, for various reasons, does not perform that function at this time. And there is also testimony that the Congress does not perform that function at this time either.

Mr. REUTHER. No one has been performing it properly. And this is why we are where we are. You see, we have all been brainwashed by the cold war, and it was almost an act of being unpatriotic to even question what a military person said. Well, they are not a superbreed over there. They are all mortals. And they make their mistakes. And we are now learning that they have made a lot of them. And we have a great deal of waste.

And it seems to me that it is the responsibility of a free society to say, when we appropriate a billion dollars of our resources, we ought to know whether it is being spent properly or improperly, and we ought to have the same scrutiny in military expenditures as in everything else.

When you have money appropriated to the Office of Economic Opportunity, then they get the microscopes out to look at every dollar. That is the way we ought to look at our defense budget.

Representative MOORHEAD. I quite agree with you, Mr. Reuther. And I think that one of the functions that has been served by bringing forth some of these procurements horror stories like the C5A and the Cheyenne, and which is unwittingly served by the sinking of our submarine, the *Guitarro*, out in California, is for the first time the people and the Congress are finding out that the military men aren't omnipotent.

They are good, dedicated, sincere citizens, but they are not infallible, and we should look at their budgets just as carefully as the budgets of HEW.

Mr. REUTHER. Precisely.

Representative MOORHEAD. Thank you, Mr. Chairman.

Chairman PROXMIRE. In your statement you imply that the military budget has grown rapidly, partly because of a lack of effective

congressional scrutiny of military spending programs. I would like for you to comment on this matter and give us your views as to how that pattern can be corrected.

Mr. REUTHER. We would suggest that you try to create a more streamlined mechanism in the Congress to pursue this question more specifically. I think that this is now dispersed in the governmental structure. And I think if a special committee had any specific responsibility and it concentrated on that specific responsibility, I think a more specific job could be done.

Chairman PROXMIRE. You see, the problem is that what happens by and large on these committees, as you know, people may be on the Armed Services Committee for several reasons. They may be very interested in the military. They may have been or may presently be reserve generals in the armed forces. Possibly they have very important constituencies that have big military bases. And it seems that over the years the Armed Services Committee, becomes attached to the military objectives and the military viewpoint, and very sympathetic toward it. How do you create a mechanism, a committee which would have a more objective, a harder hitting, a more adversary, constructive adversary relationship?

Mr. REUTHER. Maybe we ought to rotate the membership of that committee. Maybe it gets sort of built in and locked in, and it develops a kind of special vested interest in the military.

Chairman PROXMIRE. Rotation is very hard because of the seniority system.

Mr. REUTHER. I understand that. I have worked hard for the seniority provisions in our contracts, but I do believe in Congress that it is a very serious problem.

Representative MOORHEAD. Would you yield to me?

Chairman PROXMIRE. Yes.

Representative MOORHEAD. I made a suggestion along this line, that we have a special committee which would be nonlegislative like this committee, and provide that this would be an addition to other regular standing committee assignments, and that there would be rotation, no one could serve more than, say, 4 or 6 years, so that there would be a continual turnover, so that more Members of the Congress could become familiar with some of our weapons systems and strategic thinking, so that this could be dispersed throughout the Congress.

Chairman PROXMIRE. I think that is a good and ingenious proposal which I will support. However, I think that getting a committee reorganization through the Congress is likely to take a long time. In the first place, moving through the Senate, and in the second place through the House, the Moroney proposal, which didn't have anything as controversial as this in it, is still sitting in the House. I guess it died last year, and we will have to repass it this year. So this kind of an approach can be difficult. For that reason I wonder if perhaps this committee—the Joint Economic Committee—which after all under the Employment Act of 1946 to which I previously referred has the responsibility regarding our economy, shouldn't continue, absent the creation of a new committee, probing into priorities, and continue

examining this in the light of what we can do with our economic resources.

Mr. REUTHER. I think you are making an excellent beginning. And I would like to support your continuing efforts. I do believe that it is a very heavy burden put upon your committee, but if your committee is prepared to carry it I would be quite enthusiastic about it.

Chairman PROXMIRE. A few years ago you made a very interesting and very ambitious proposal about how we could help build stronger economies in the world, greater freedom in the world, through foreign assistance. You are identified, I think, generally as a strong internationalist, at least certainly not an isolationist in any sense, in view of your background and what you have worked and fought for. How do you answer those who feel that we have to have 400 major overseas military bases, some 2,000 or more installations overseas? In your view could we close some of these bases without walking out on our defense of freedom in the world?

Mr. REUTHER. I am not competent to put my finger on the specific bases, but it would seem to me that most of those bases came out of an earlier period when we had an entirely different kind of weapons system that required the broad dispersal of forces and weapons, and so forth.

And it would seem to me that it would be possible to consolidate and to bring about very sizable reduction in terms of cost and troop deployment. And I think that this is an area that needs very careful reevaluation. I know that every time you close down a military installation you get all kinds of pressures in Congress. And I suppose that that is equally true in the world community. Because these bases leave a lot of dollars in those communities in which they are located, whether they are domestic or overseas bases.

Chairman PROXMIRE. As you know, it is easier for us to make a fight for these bases successfully, and continue our military foreign assistance in other ways too, than it is to support foreign economic assistance.

Mr. REUTHER. That is right. It is always easier to get money for guns than it is for social improvement. That is the tragedy of our world. Why should it be that way? I mean the good Lord did not ordain that man can make only a maximum economic effort in terms of war. Why do we always have to sacrifice civilian domestic needs to meet military needs?

It is because, you see, our whole value system is cockeyed. This is where we are in trouble.

And what we have got to do is put them in sharper focus so that we know what we really have.

This is one of the problems with young people. Why are young people in revolt, not only in America—and they are in revolt in America, and Vietnam and the racial question I think intensifies our problem with young people in America—but young people all over the world are in revolt because I think they look at the world and they say that the world is run by a bunch of hypocrites, because they preach one thing and they behave quite differently. And of course they are

right. Because we aren't—we have been based upon the things we propose to believe in. Two thousand years of brotherhood and understanding, and yet we have got the greatest capability of destroying man we have ever had in the world. I also think the kids are deeply concerned about the fact that they think that things are taking over, that things are getting bigger and man is getting smaller in relationship to things.

And this gets down to values. What are we about? What are we trying to do with this whole, what we call the American dream? How do we see that it doesn't become a nightmare? This is fundamentally the problem.

So I think when you are talking about military bases around the world or military bases in America, we have got to look at those things in a hard, practical way and say to ourselves, are the resources that we are spending there, can they be justified when measured against what we need to do in the cities and the schools and health care and environmental problems. And until we make that test, we are going to go on wasting billions of dollars on unnecessary obsolete military bases and procurement policies that cannot be defended.

Chairman PROXMIRE. Certainly one of our major economic problems now is inflation. Can we meet these massive social needs which you so eloquently and movingly refer to, can we meet them without further inflation? And what can we do to minimize this inflationary impact?

Of course, part of your answer I presume is that if we have a more thoughtful and careful allocation of resources to the military it will have less of an impact. And military spending is more inflationary dollar for dollar than any other kind of spending. I am just wondering if you can help us in constructing something which you dealt so long as a top labor union official. How can you meet these problems without serious inflation?

Mr. REUTHER. The problem of inflation is not a simple one, and there is no simple answer. I think first of all that the level of military expenditures is a very serious inflationary pressure, and if we could get a reduction there, so that we could convert that into domestic production, that would tend to make available more goods and services, and therefore tend in terms of classical economic inflationary pressures to reduce those pressures.

Second, I think we have got to recognize that we have never really fully mobilized our economic potential in terms of our peacetime needs. We have never had full employment in peacetime. And I think that there is no doubt about this, that if we could get low unemployment—if we could carry out the provisions of the Employment Act of 1946 and therefore maximize the amount of production of goods and services, that also would be a positive contributing factor.

Chairman PROXMIRE. What do you do, Mr. Reuther, about the economists arguing about their so-called tradeoff between a low level of unemployment and inflation? They say the lower your unemployment gets, as unemployments gets lower than 4 percent, inflation increases rapidly. And this has been our historical economic experience.

If we get a lower level of unemployment than we have now, if we get a lower level than 3½ percent, if we get down to 3 percent or 2½ percent, what is there in the present picture to disabuse us of the experiences we have had where low unemployment has resulted in rising prices.

Mr. REUTHER. You see, that theory is, I think, not a sound one. The Canadians bought that theory, that when you get unemployment down to a certain minimal level, that that automatically begins to accelerate inflationary pressures. And so what they did, the Canadian Government made a very deliberate policy decision to try to get greater price stability by buying higher levels of unemployment. So they bought higher levels of unemployment. But the price index continued to go up at the same rate. And you will find, if you check it, that in many of our recessions in America, while unemployment multiplied many times over, it had no immediate impact upon movement of price indexes. They continued to go up.

I believe that what we need to do is to get behind the central cause of inflation, social irresponsibility.

C. E. Wilson, when he was president of the General Motors Corp., wrote an article once in defense of the agreement that he had negotiated with us that provided for automatic cost-of-living adjustments. And he was under great pressure from others in industry, because they thought he had betrayed his class in working this agreement out with the UAW. And so he wrote this article for the Reader's Digest to defend his position. And he said, we ought to quit talking about the "wage-price" spiral when in fact it is the "price-wage" spiral. Because in period after period you can demonstrate by economic statistics that wages always followed the price trend. There was a period in American economy, back in the 1965-66 period, when wages lagged far behind the movement in the Wholesale Price Index. And so you can't blame that price movement upon wages when wages actually lagged behind the price movement.

Our price inflation primarily comes out of what we call administered-price industries. These are the industries which have such a dominant position in a given market that they can ignore the disciplinary pressures of the marketplace. They can arbitrarily determine their price structure.

General Motors Corp., is a case in point. General Motors does not set its prices based upon the competitive forces of the marketplace. The General Motors Corp. has a formula—this has been testified before committees by high officials of the General Motors Corp.—that they have a pricing formula that yields them a 20-percent return on their investment after taxes, based upon 180 days of production. Now, if they have a good year, and they get many more days of production than 180, then their profits just skyrocket.

What we have proposed in the UAW is what we hope is a middle ground in meeting the problem of inflation. If the marketplace does not discipline the price behavior of major corporations, and since we don't want to take the other extreme to have somebody in Washington act as an economic man to set the prices, we have proposed in the UAW

the creation of what we call a public price-wage review board. And we would require under that setup any major corporation with 20 or 25 percent of the total production of a given industry—that would be a corporation that we could consider to be an administered price company where they set the price unrelated to the marketplace—if they contemplated raising the price of their products, they would have to defend the economic justification of that contemplated price increase before this public review board. If my union were bargaining with that company and they said, “well, we are doing this because the UAW is demanding a wage increase which is greater than we can carry out of increased productivity, and therefore we have to pass part of it on to the consumer,” we, then, would have to defend our wage demand before that public review board. And we believe that only as we develop some mechanism that will in effect make for the disciplining of private economic decisions to make them more publicly responsible will we get at the crux, what we think is the source of our basic inflationary pressures.

And that is the pricing policy of administered-price industries, which always are trying to get a little more out of the marketplace in terms of their investors.

Chairman PROXMIRE. I think you have made a great contribution, you and labor have made a great contribution. In the period 1962–66 we had stable wage costs, the only major industrial country that had them, because of the cooperation of the labor movement and management, to a considerable extent, and Walter Heller’s leadership under Presidents Kennedy and Johnson.

That broke down. What I am talking about is, in the very large non-organized sector of our economy, the fact when you just have a scarcity of skilled people, and you have a continued demand for the work that skilled people perform, unemployment simply builds up the prices of those skilled people, and costs go up and prices go up. This seems to have been what has happened in the past, and many experts who appeared before this committee, economists particularly, argue that this is what is happening now, that we have had the greatest number of want ads in our papers for the last several months that we have ever had in our history. And while we do still have, as you point out, probably two and a half million of our people out of work, they say that those people are not skilled, and as a result, they feel that they just have to bid up wages in order to get people at all, and so prices go up.

Mr. REUTHER. I think we need really an overhaul of our basic manpower policies. I think we ought to have a computerized national employment service, so that by pressing several buttons you could find out what jobs are available, and what the skill content of those is, so that you could begin to match workers and job openings more intelligently and effectively.

We have got the most antiquated, fragmented employment service of any modern industrialized nation in the world. We have got to do something about that. That, then would give us the capability of knowing in what areas we have a lack of skill and where we need to try to accelerate our training programs, and so forth.

But you are getting many pressures in terms of inflation in the service industries, where the very lowest paid workers are. I marched in South Carolina with a group of hospital workers who were paid a dollar and thirty cents an hour. Now, does anyone really believe that workers are going to continue to work for a dollar and thirty cents an hour? What we have to do is raise the level of these people who are really at substandard wage levels, and offset the inflationary pressures that that creates, because their productivity can't go up. They are not working with the tools of modern science and technology. Their productivity increase will be very small, although their wages have to come up. That must be offset by a price reduction in the industries where the increase in productivity is abnormally high, because the rate of technological progress is much greater. And then we could get a balancing out. If you could get a price reduction over here in a high productivity industry where the technology is accelerating very quickly, you could then get a wage increase over here, and the thing would balance out. But that doesn't happen. And the result is now that low-paid workers are fighting to get a little more, and they are being victimized by the inflationary pressures, and this tends to keep feeding the cycle of inflation.

Chairman PROXMIRE. I would like to ask you this final question: Not all our problems are solved merely by shifting resources from the military to the civilian sector, although you and I and many Members of the Congress agree that we must do this, and it has a high priority now. But many if not most subsidies go to those who need them the least. And I am especially conscious of this in housing, where our housing subsidies to those in the top income bracket have greatly exceeded those in the bottom. This shocks people when they hear it. But people in the top 20 percent of income have received more housing subsidies than those in the bottom 20 percent for the last many years. And this policy, while it is moderating, seems to be continuing. But the ship-building subsidies, the SST, the highways, the high interest rate for Government borrowing, and so forth, how do you get resources for the poor and the weak within the civilian sector? Who speaks for the poor?

Mr. REUTHER. I think this is one of the very serious problems, that the poor are without importance. And this is why they get neglected. And I think in effect we have to work to try to give them access to power, so that they can begin to exert the leverage of that power. I think we have got some overall thinking to do.

You know, we have been in favor of Park Avenue socialism for a long time in America. But we have been opposed to proletarian socialism. What we have to recognize is that the subsidies that we call socialistic and so forth when they go to the poor, have been going to the affluent in tremendous amounts. You can subsidize a corporation, pay a big subsidy to a corporate farmer, and no one calls that socialism. But if we appropriate a very small amount to help some family in the ghetto, they say, well, that will destroy initiative and incentive, and that undermines the very virtues of our free society. We have got to get rid of that kind of nonsense, because it is just sheer economic non-

sense, with a big mixture of hypocrisy. We have got to look at people and say, OK, what is our fundamental problem? Why can't the poor escape the cycle of poverty? Well, you raise a kid in a ghetto, and he grows up in a family where there is not a book in the house, where the whole environment in which his character is shaped is negative, is incompatible with the kind of values that we want him to share. And yet we are surprised when that kind of kid drops out of school, and create all kinds of problems. What we have got to do is, we have got to recognize that the future of the most affluent American is inseparably tied together with the future of them most poverty-stricken Americans.

I sat in a New Detroit Committee some months ago, which is a very broadly representative group in Detroit of industry and labor in the community and the religious groups and the academic community and the black community. I got there a few minutes early one morning, and Mr. James Roche, who is the chairman of the board of General Motors Corp., and the highest paid executive in the world, was there. And I must say that he and other businessmen spent a great deal of time and effort in this community committee.

And there was a young black militant from the ghetto who was representing a small group of young militants in the ghetto, and he was there. And we were just chatting, waiting for the committee to assemble. And this young black militant said, "You know, Mr. Roche, we made a mistake the last time."

Mr. Roche said, "What do you mean?"

He said, "Well, we were stupid. We burned down our slums. The next time we are going to burn down your plants."

That is the world in which we live. And the most affluent American is living in a dream world if he thinks that his future is unrelated to the tomorrow of those people in the ghetto. There are no white answers, there are no black answers, there are no rich answers and no poor answers to American problems. There are only answers that we have got to find together.

And it seems to me that all of the old structure of power is a part of yesterday. We ought to put it over in a big room in the Smithsonian Institution, it doesn't belong in real America. And we have got to begin to share power, and we have to begin to change the basic structure of American society, or its future is in jeopardy. And it seems to me that only as the powerful understand that, and are willing to share power, and help redistribute power, and are willing to try to make these advantages that they share in great abundance available to everyone, can we build a viable society in which the values that we believe in can be made secure.

And the hour is much later than we think. How many schools will not open in September? There are dozens and dozens of cities that don't have the money to open their schools. What will happen in those cities when there are no schools open and these kids are roaming the streets?

How many cities in America today can say with certainty that this is not going to be a long hot summer?

These are the things we need to think about. And when we talk about military expenditures we have got to think in this broad framework of our domestic needs. When you talk about your individual advantages and affluence you have got to equate that with your relationship to the totality of our society, because you can't run away from it.

Chairman PROXMIRE. Mr. Reuther, thank you for a superlative job. This has been most enlightening and helpful I think you have done a great deal to give us a far better, deeper, broader insight into the military budget and our American priorities.

Thank you very much.

The committee will stand in recess until tomorrow morning at 9:30, and we will hear from Senator Barry Goldwater, Mr. Merton Tyrell, of the Performance Technology Corp., and Gordon W. Rule of the Navy Procurement.

(Whereupon, at 12:30 p.m., the committee was adjourned, to reconvene at 9:30 a.m. Tuesday, June 10, 1969.)

