782

ALLOCATION OF RESOURCES IN THE SOVIET UNION AND CHINA—1976

HEARINGS

BEFORE THE

SUBCOMMITTEE ON PRIORITIES AND ECONOMY IN GOVERNMENT

OF THE

JOINT ECONOMIC COMMITTEE

CONGRESS OF THE UNITED STATES

NINETY-FOURTH CONGRESS

SECOND SESSION

PART 2

EXECUTIVE SESSIONS

MAY 24 AND JUNE 15, 1976

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U.S. GOVERNMENT PRINTING OFFICE

76-248 WASHINGTON : 1976

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 - Price $1.50

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MONDAY, MAY 24, 1976

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

The subcommittee met, pursuant to notice, at 10:05 a.m., in room 1318, Dirksen Senate Office Building, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senators Proxmire, Kennedy, and Percy; and Representative Brown of Michigan.

Also present: Richard F. Kaufman, general counsel; and George D. Krumbhaar, Jr., minority counsel.

OPENING STATEMENT OF CHAIRMAN PROXMIRE

Chairman PROXMIRE. The subcommittee will come to order.

I am very pleased to welcome the Honorable George Bush, Director of the Central Intelligence Agency, to the Subcommittee on Priorities and Economy in Government.

Mr. Bush, this is your first appearance before our subcommittee but you are undoubtedly aware that we have a longstanding interest, that goes back many years into economic conditions and budgetary allocations in the Soviet Union and China.

We are most pleased that you could appear before us today. Your Agency has been extremely helpful in the past by providing us with official intelligence estimates about matters which it is very difficult for us to obtain from other sources.

We are most appreciative of your willingness to cooperate with us not only at these annual hearings but also during the course of the year. In the past, the staff of the CIA has been willing to work with the staff of the subcommittee and I am hopeful that this arrangement will continue.

This is the one hearing under my chairmanship which is regularly held in closed session. I would prefer to do it openly, but I can understand your desire to speak in executive session so that you can discuss the issues without concern for classified information. It has been our policy to sanitize the record as quickly as possible so that it can be printed for the public.

We will proceed with your statement. And we will have some questions for you.

STATEMENT OF HON. GEORGE BUSH, DIRECTOR, CENTRAL INTELLIGENCE AGENCY, ACCOMPANIED BY EDWARD PROCTOR, DEPUTY DIRECTOR FOR INTELLIGENCE; NOEL FIRTH, DIRECTOR, OFFICE OF STRATEGIC RESEARCH; DOUGLAS DIAMOND, OFFICE OF ECONOMIC RESEARCH; ROBERT M. FIELD, OFFICE OF ECONOMIC RESEARCH; DONALD BURTON, OFFICE OF STRATEGIC RESEARCH; AND LYLE MILLER, ACTING LEGISLATIVE COUNSEL

Mr. BUSH. Thank you, Mr. Chairman.

First, I would like to identify certain people that are here with me today. On my left is our Deputy Director for Intelligence, Mr. Proctor; Noel Firth is our Director of the Office of Strategic Research; Mr. Diamond from the Office of Economic Research; Mr. Field, the Office of Economic Research; Donald Burton, the Office of Strategic Research; Lyle Miller is our Acting Legislative Counsel, and Miss Fitzgerald is my Executive Assistant.

It is a pleasure to be here, sir. And I want at the outset to assure you that the same kind of cooperation that you mentioned will certainly continue in the future.

BACKGROUND OF HEARING

I am pleased to note that in the 11 months since Bill Colby last appeared here our analysts have continued to contribute substantially to the useful products sponsored by this committee. I understand that this began some 15 years ago when the Agency first contributed to the committee's annual compendium of papers on the Soviet and the Chinese economies. I welcome this opportunity to make the results of our analytical efforts available on an unclassified basis, as you mentioned, to scholars and government components outside of the intelligence community. As a matter of fact, the more of that kind of thing we can do, I think, the better it is for our Agency.

In that connection I have been pleased to learn that the Agency has followed the practice that you refer to of providing the committee with each unclassified study concerning the Soviet and Chinese economies as they are completed, and that members of the staff have received occasional briefings on these subjects.

I would like to make a few general observations on the two major economies and their allocation of resources, and then speak on the special matter of the refiguring of the Soviet defense spending on the basis of rubles. We have submitted a much longer prepared statement for the record.

I hope you will understand if I can't respond directly to a lot of technical questions. But we have experts here, and if it is agreeable to you, I will ask them to respond.

SOVIET ECONOMIC TRENDS—SERIOUS SETBACKS

First, let me highlight a few features of our current views on Soviet economic trends. In 1975, the Soviet economic trends. In 1975, the Soviet economy suffered its most serious setback since Brezhnev came to power. For agriculture the year was disastrous. And in foreign trade the combination of increased grain imports and sluggish West-

ern demands for Soviet exports led to a record hard currency trade deficit.

FOOD SHORTAGES AND WORK SLOWDOWNS

Last year's troubles will hurt the economy's performance this year. We are getting reports of food shortages, particularly in meat, as well as stories of work slowdowns and vandalisms in the markets, as the people vent their ire. People are grumbling. But it is not likely to pose problems of public order that the regime cannot keep up with.

1976 TARGETS CUT BACK

In planning for 1976 the Soviets have cut back their targets to allow for inevitable shortages of farm products. Apparently some prospective contracts for Western technology and equipment have also been shelved, possibly because they are in a hard currency bind. The 1976 plan embodies relatively moderate goals which we consider to be generally attainable.

MODEST GOALS IN NEW 5-YEAR PLAN

Similarly, the basic guidelines of the Soviets 10th 5-year plan are again this year generally much like those of the last one, though they have set more modest goals. They reflect the restrained approach to Brezhnev's leadership over the past 10 years. He has taken no steps to make bold, innovative changes in the economic system.

PERIOD OF SLOWER GROWTH

As was developed in the prepared statement we submitted, one can see many signs that the Soviet economy has entered a period of slower growth, at a time when all major sectors, defense, industrial growth, and consumption, are demanding increases. I would only underline that the leadership's handling of these issues is bound to be contentious, particularly when the old guard of the Politburo will be passing from the scene.

CHINESE ECONOMY—IMPRESSIVE GROWTH

With respect to China, Mr. Chairman, the picture is one of a more impressive growth, but in an erratic overall pattern. As in the Soviet Union, agriculture has generally been a problem area. The Chinese have been according an increasing share of resources to their agriculture. They also are having some success in stemming the growth of the population, which is now estimated to be around 950 million people.

LEADERSHIP CHANGES

Second, I would remind you that the greatest disruptions in Chinese economic growth have closely matched periods of political turbulence—the Great Leap Forward in the early sixties, the Cultural Revolution in the late sixties, and in the anti-Confucius campaign, which continued into last year, but which was identified largely with 2 years ago. And so in trying to project economic trends into the future

we must provide a cautionary note, in view of the sudden leadership changes in Peking just this year.

Chou's death, the subsequent removal of Teng Hsiao-ping as Acting Premier, and the elevation of Hua Kuo-feng to the Premiership last month took place in a period of political controversy that underlines the uncertainty surrounding future policies. Attacks on Teng Hsiao-ping have indeed raised specific economic issues.

Nevertheless, Chinese awareness of the close connection between success in economic development and political stability perhaps explains why, during the struggle to oust Teng Hsiao-ping careful attention was given to emphasizing that nothing should interfere with production or other operations in the economy.

The situation is obviously still fluid. Chou's death, plus Chairman Mao's physical decline, have issued in a period of political turbulence which may become intensified upon Chairman Mao's death. Past experience suggests that such a turmoil might cause marked disturbances in the economy as well, if you go back to the "Cultural Revolution" and the "Great Leap Forward" types of disturbances.

Soviet Allocations to Military and Space Functions

My final comments, Mr. Chairman, concern your committee's special interest in Moscow's allocation of resources to military and space functions, especially as figured in the Soviet budget, that is, in rubles.

[Deleted.] You should know that over the past several years our people have acquired, from a variety of sources, more information than ever before relevant to our estimates of the costs of Soviet defense programs. Applying our building block methodology to this new information, we have, of course, changed our estimates. Some of these changes seem quite startling, certainly at first glance they do.

I would like to just say, Mr. Chairman, that I have been impressed with the intelligence community's constant reexamining of old judgments in the light of the unceasing flow of new information. And I have made very clear to Mr. Proctor and others that my view of intelligence simply is that it ought to be prepared from the best information possible without partisanship, without fear of bias. I think in this case this is what was done, although the results are quite different than previous estimates.

Also I must add my own words of caution on the dangers of magnifying the significance of any of these figures by themselves, whether in dollars or in rubles. At most they offer some elucidation of trends and insight into relative internal priorities and general orders of magnitude.

New figures do not signify jump in defense programs

It is also important not to misunderstand the significance of the new estimate of the share of Soviet gross national product devoted to defense as expressed in rubles. It does not signify a dramatic jump in the size of Soviet defense programs. It does reflect an increase in our assessment of the cost of these programs.

Mr. Chairman, we appreciate testifying in closed session, so that we may answer questions without the inhibiting effects of concern for protection of sources and methods. Later we will review the transcript to

remove any classified information, with the aim of doing what you requested, that is permitting the publication of as much of our testimony as possible.

At this juncture, Mr. Chairman, I had planned to ask Mr. Proctor to present our full prepared statement. Instead, I understand, it will be submitted for the record. We can proceed in any way you desire.

Chairman PROXMIRE. Supposing we go ahead with some questions, and then you might fill us in, after you have answered questions, on whatever we have missed. Maybe that would be one way of proceeding.

And the prepared statement, as you say, will be printed in full in the record at this point.

Mr. BUSH. All right, sir.

[The prepared statement of Mr. Bush follows:]

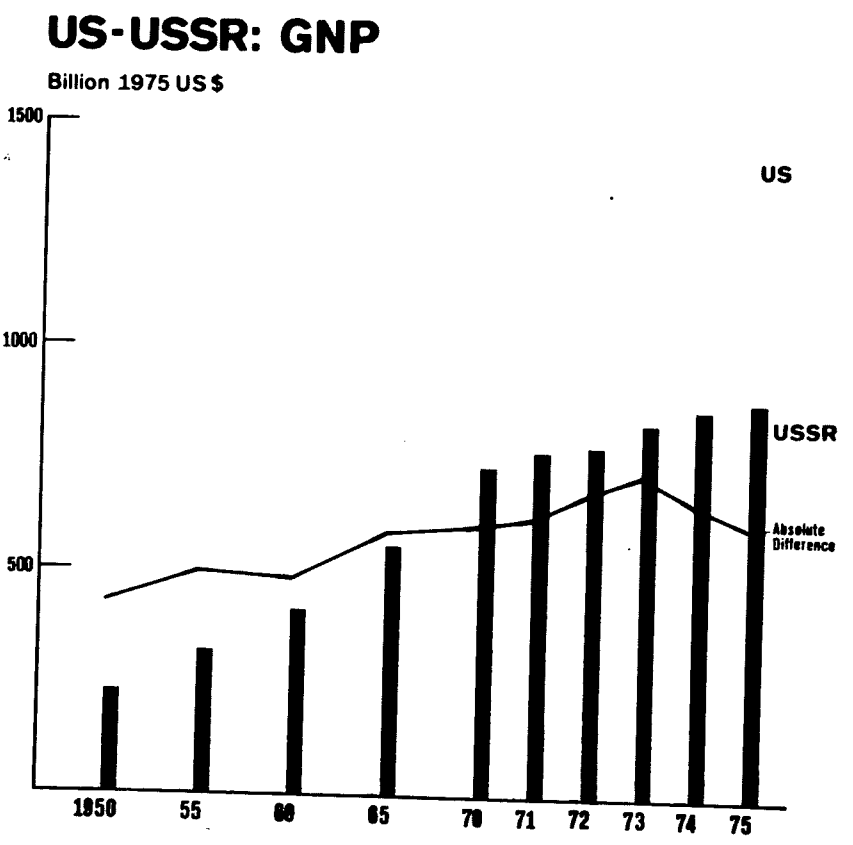
PREPARED STATEMENT OF HON. GEORGE BUSH

PART I. THE SOVIET ECONOMY

Results in 1975

I. Mr. Chairman, I would like to expand on the Soviet economic situation in 1975–76 and on likely developments during the remainder of the decade.

A. Last year the growth of Soviet gross national product slumped to about 2½ percent compared with the 4 percent annual average rate in 1971–74. (*Chart: US–USSR: GNP.*)



1. The miserable *grain* harvest—output was only 140 million tons compared with a plan of 216 million tons—pulled total *agricultural* output down by 9 percent. Since agriculture represents roughly one-fifth of GNP, this drop clearly was the major factor in last year's decline in the rate of overall growth.

2. Moscow took a number of steps to lower the demand for grain:

(*a*) Livestock was fed substitutes such as reeds and leaves, and in some cases actually moved out of the drought-afflicted areas:

(*b*) All grain export commitments to Eastern Europe were canceled. These had been running at about 7 million tons annually.

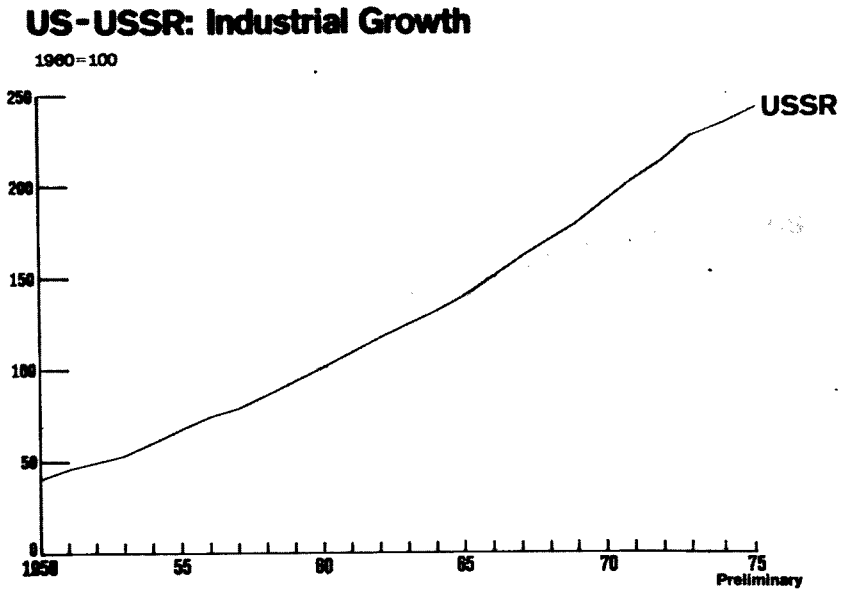
3. At the same time, grain reserve stocks were drawn on heavily—to what we believe are now minimal levels—and Moscow arranged large-scale grain imports:

(*a*) Including the most recent deals with Canada, Australia, and the US, we calculate the Soviets have purchased about 37 million tons since July, including 19 million tons from us.

4. Despite all these measures, feed supplies in the USSR have been inadequate. Distress slaughtering began as early as last summer, and by yearend, inventories of hogs and poultry—the two principal grain consumers—were down by 20 percent and 15 percent respectively:

(*a*) This meant a short-term rise in meat, but at the expense of future supplies. Both the quantity *and* quality of meat evidently have already turned down. We estimate that the Soviet consumer will get 25 percent less meat this year than last.

B. Soviet *industrial* output was about normal in 1975. It grew by 6½ percent, in line with average over the past five years. (*Chart: US–USSR: Industrial Growth.*)



1. The production of *industrial raw materials grew* impressively, chemicals being the star performer.

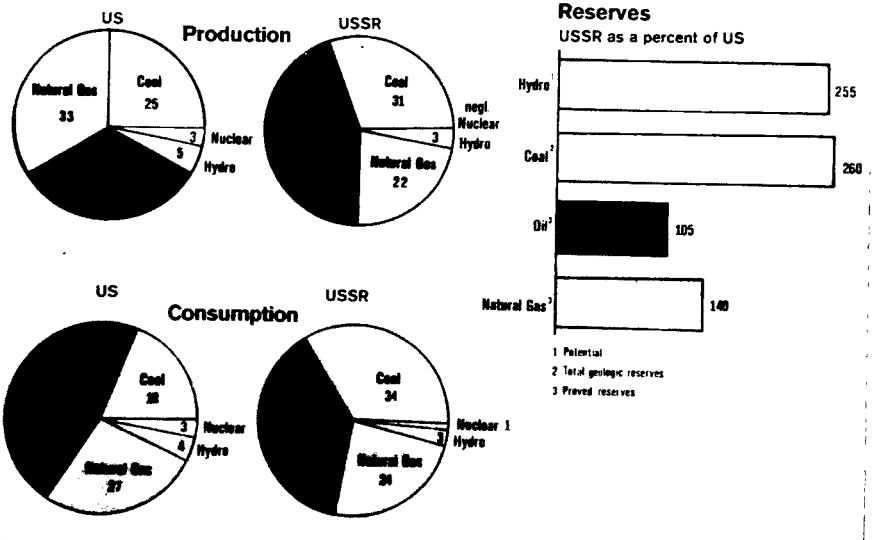
2. The output of *consumer goods grew* less than in the past.

3. *Producer durables* also *fell* off.

4. And the production of *primary energy* continued to move up steadily, reflecting the USSR's *unique position of energy self-sufficiency* among the world's industrialized powers. (*Charts: US–USSR: Primary Energy, 1975; and USSR: Oil and Natural Gas Production and Trade.*) Even though the Soviets face difficult problems in developing petroleum fields in distant and inhospitable areas, it is only a question of time before these extensive reserves come on stream.

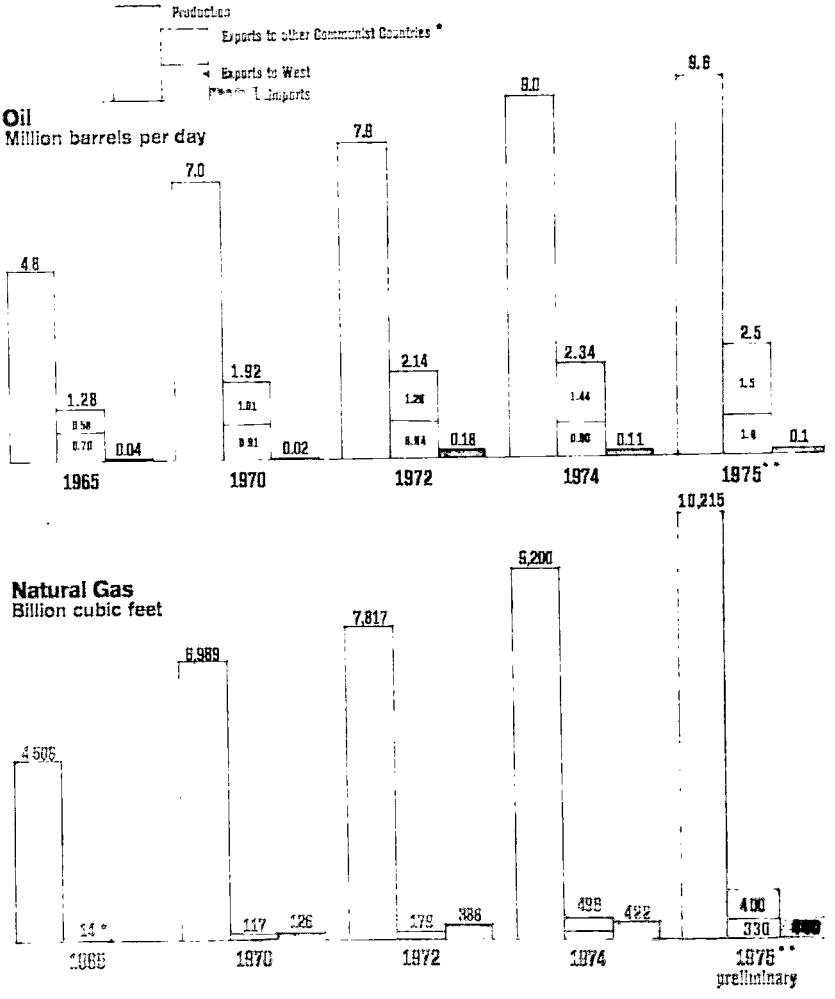
US-USSR: Primary Energy, 1975*

In Percent

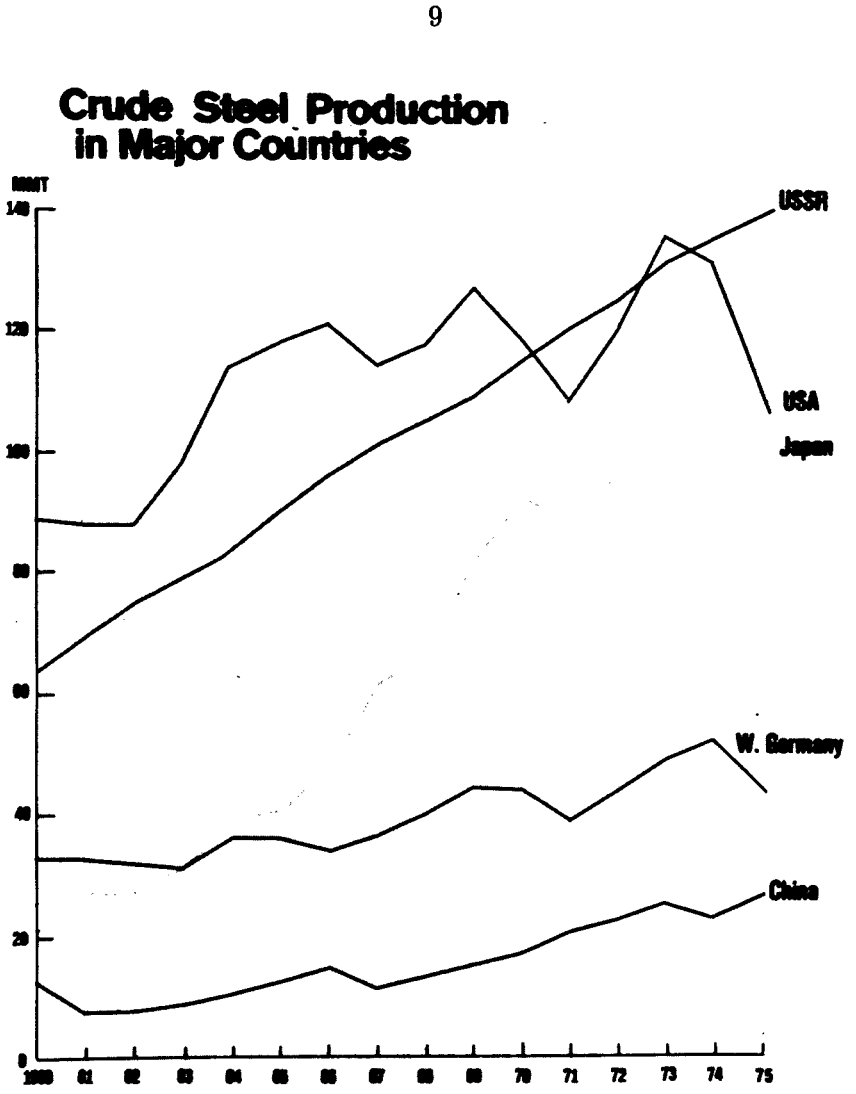


*Preliminary estimates

USSR: Oil and Natural Gas Production and Trade



5. *Steel* output was *at a record level*, but demand still outran domestic supply, so imports continued to be high. (*Chart: Crude Steel Production in Major Countries.*)



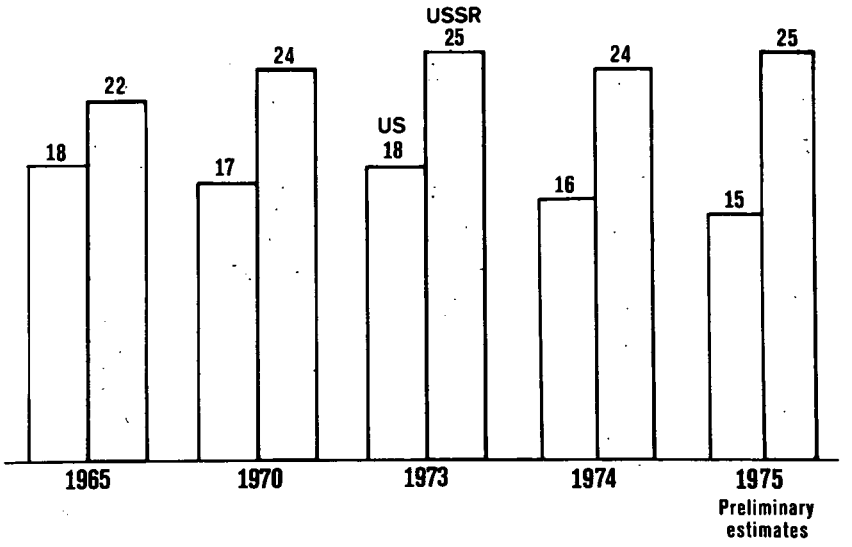
6. As for *machinery*, technologically advanced items, and equipment for the agricultural sector led the way:

(*a*) Dramatic rates of increase—such as 32 percent for computer equipment—were possible because output in 1974 was low compared with levels in other industrialized countries. The USSR is now concentrating on a computer series modelled on the technology of the IBM 360 line, which was developed here in the early 1960s.

C. In the area of the *capital investment*, the Soviets last year continued to devote a high proportion of GNP—one-fourth compared to about one-sixth in the US—to expanding the stock of new plant and equipment. (*Chart: US-USSR: New Fixed Investment.*)

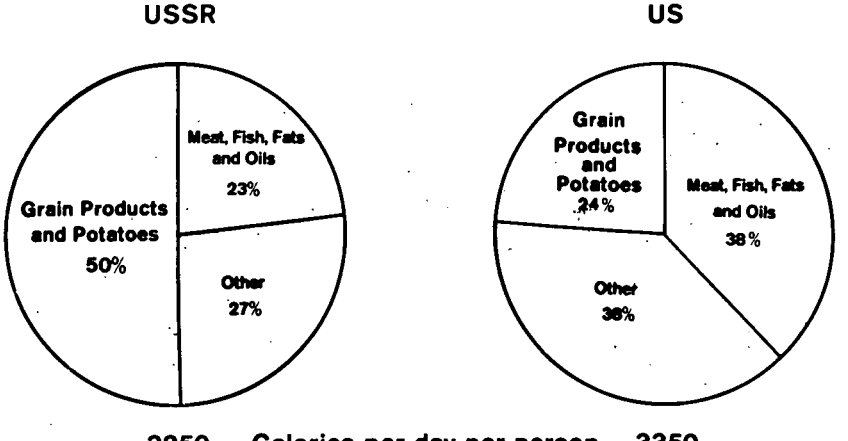
US-USSR: New Fixed Investment

As a percent of GNP

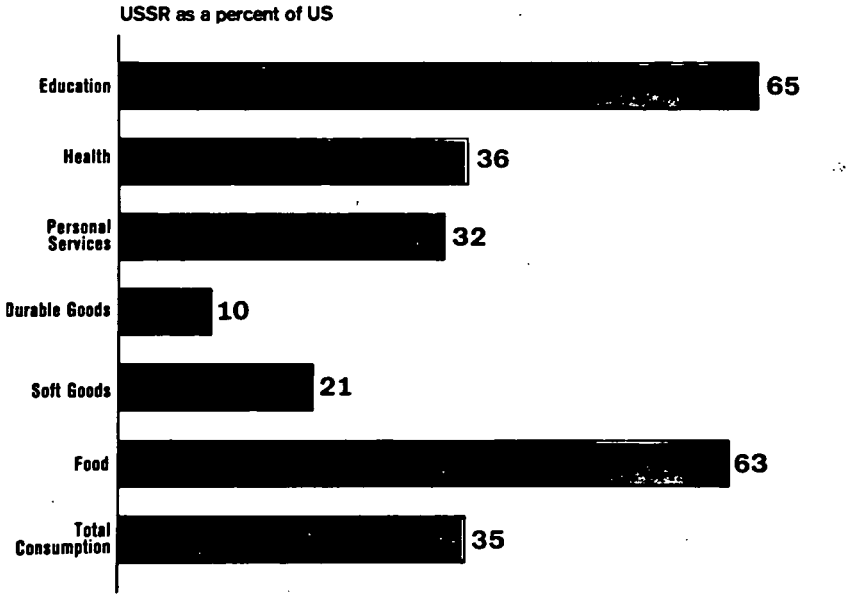


D. All in all, the Soviet *consumer* had a relatively good year in 1975, despite the worsening agricultural situation. The food *marketing* pipeline remained full, aided by distress slaughtering, and other consumer goods and services were more available than before. (*Charts: US-USSR: Composition of Diets, 1974; and US-USSR: Per Capita Consumption, 1974.*)

Composition of Diets, 1974



US-USSR: Per Capita Consumption, 1974



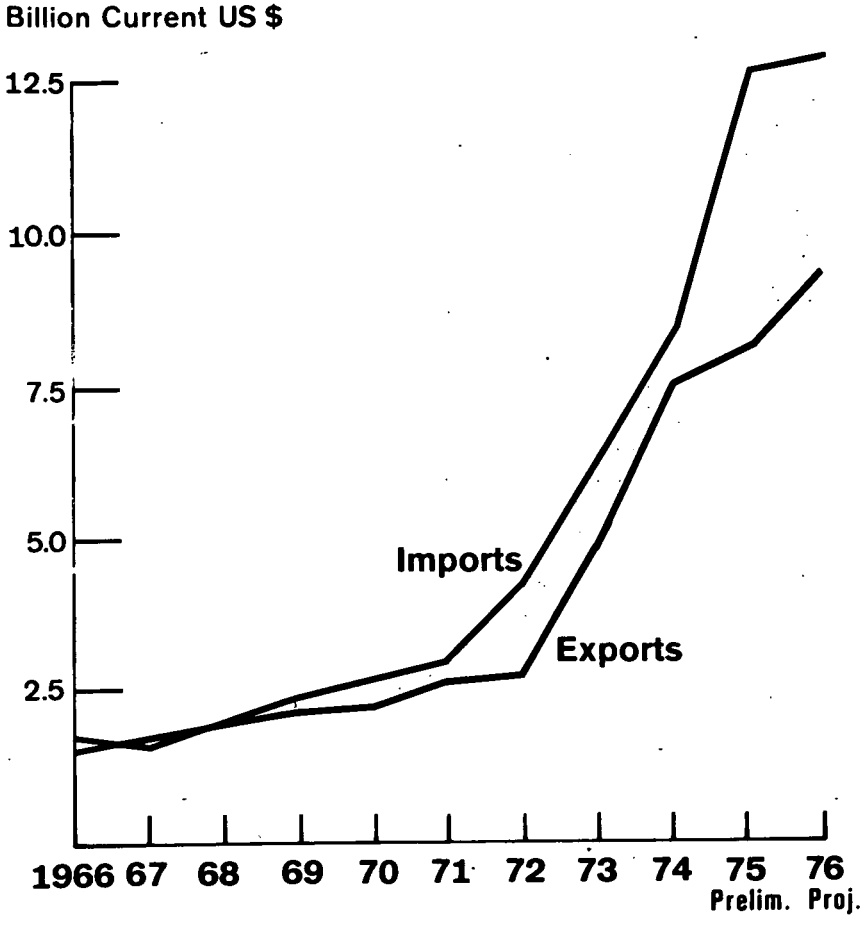
1. On a less positive note, the increase in average *wages* was kept down again last year to restrain inflationary pressures; savings bank deposits rose again until they are now equivalent to more than one-third of total money incomes.

2. The total supply of new *housing* edged up, but *living space* — on a per capita basis—remains below even Soviet norms.

E. Soviet *foreign trade* continued to rise last year. Its *value*, measured in dollars, grew by an impressive 35 percent; on a *volume* basis we estimate the rise to be well under half of this rate of increase.

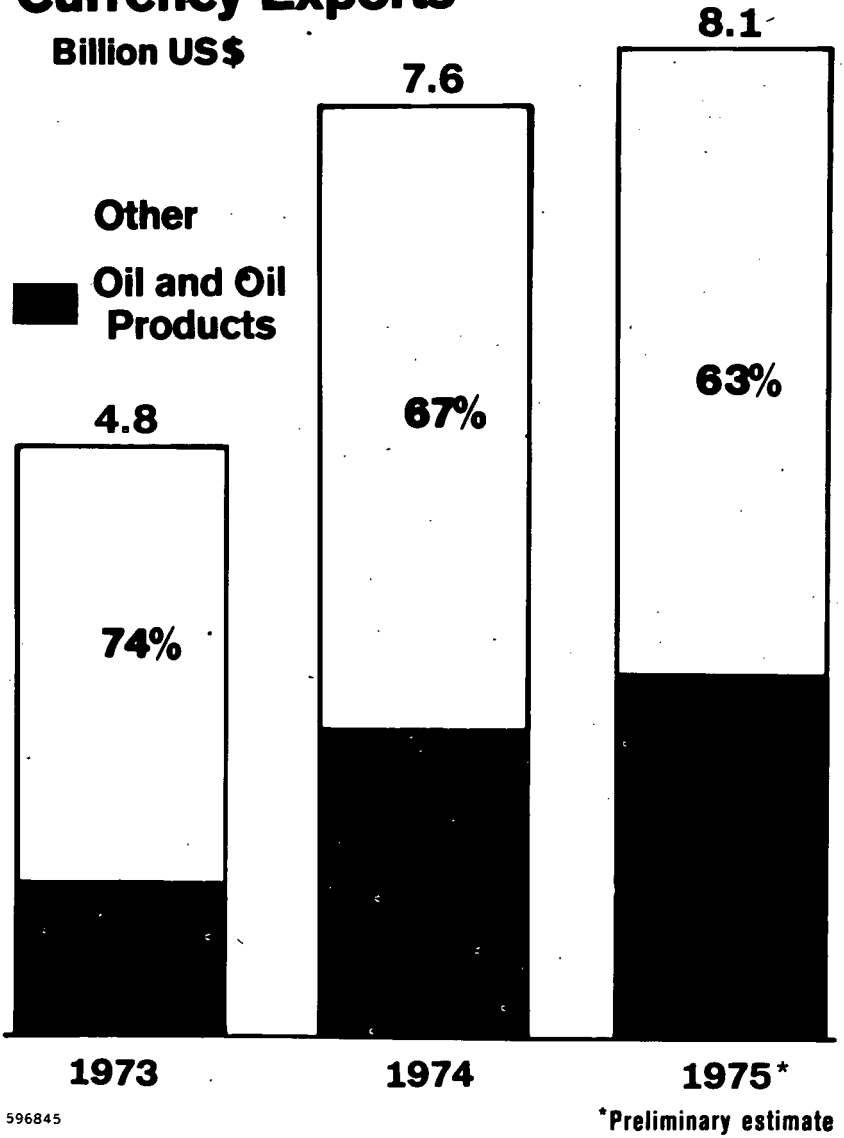
1. The rapid rise in imports from the developed West (including Japan) plus a drop in demand in the West has resulted in hard-currency deficits in recent years. (*Chart: USSR: Hard Currency Trade.*) Last year, with recession in the West cutting demand still further, the foreign-exchange position deteriorated dramatically. The USSR had a roughly $5 billion hard currency trade deficit compared with a $900 million deficit in 1974:

USSR: Hard Currency Trade



(*a*) This occurred despite a further rise in the share of high-priced oil and oil products in Soviet exports. (*Chart: USSR: Oil Share of Hard Currency Exports.*)

USSR: Oil Share of Hard Currency Exports



(*b*) The Soviets finance their large and escalating hard-currency trade deficits through a combination of credits and gold sales. With the conspicuous exception of the US, since mid-1974 Western governments have extended or backed more than $11 billion in long-term credits to finance Soviet purchases of machinery and equipment.

(*c*) Although the USSR's medium and long-term debt rose rapidly last year to at least $7 billion, debt service remains manageable, as it accounted for only about one fifth of Moscow's hard-currency earnings in 1975.

(*d*) While the Soviets are concerned, they still purchased last year more than $4 billion in Western technology and equipment for future delivery.

Soviet economic aid to LDCs

F. You are interested, Mr. Chairman, in how the Soviet economic aid program fared in these circumstances. Deliveries to LDCs last year were about $400 million, the 1970–73 average, down by one third from the usually high 1974 figure swollen by emergency wheat shipments to India.

1. As before, the Near East and South Asia received the lion's share. Egypt, Iran, India, Turkey, and Iraq alone accounted for more than 70 percent of total aid deliveries.

2. New *commitments* were up sharply, to a record $1.3 billion. They included Moscow's largest credits ever extended to LDCs—$437 million to Afghanistan and $650 million to Turkey.

3. We expect the Soviets to maintain recent delivery levels in 1976 despite the possibility that Egypt will begin to phase out the Soviet program. Expanded deliveries to other Near East and South Asian countries should make up the shortfall.

The outlook for 1976

II. Turning now to the Soviet economic plan for 1976, one is immediately struck by the generally low and fairly realistic goals projected—with the possible exception of agriculture. Clearly the Kremlin recognizes that last year's harvest failure will have substantial carryover effects. (*Chart: USSR: Growth of GNP, by Sector of Origin.*)

USSR: Growth of GNP, by Sector of Origin[1]

Percent

	1974	Preliminary 1975	Plan[2] 1976
GNP	3.7	2.3	4½
Industry	6.3	6.3	4½
Construction	6.1	6.5	2½
Agriculture[3]	−1.3	−8.8	9
Other[4]	4.4	4.4	4

1. Estimated, at factor costs.

2. Based on Soviet plans for individual sectors; rounded to nearest half percent.

3. This measure for agricultural output excludes intra-agricultural use of farm products but does not make an adjustment for purchases by agriculture from other sectors.

4. Includes transportation, communications, trade and services.

A. The consumer will be hardest hit; growth of industrial production also will be slowed, and the Soviets will continue to carry a sizable hard-currency trade deficit. *GNP* as a whole is planned to increase by about 4½ percent (up from the estimated 1975 rate of 2½ percent).

B. The projected increase in *industrial output* of 4½ percent is the lowest planned for since World War II.

1. This low target reflects anticipated shortages of agricultural raw materials and continuing lags in bringing new plant and equipment on stream.

2. Targets for both heavy and light industry are down by historical standards, but heavy industry retains preference, as usual.

C. Growth in total *investment* is to be reduced to about 4 percent.

1. Once again the plan places major emphasis on completing unfinished investment projects and modernizing existing plant and equipment.

2. Agriculture and its supporting industries are to maintain their priority status, receiving more than one third of total investment.

D. Among the many ingredients in the plans, the most questionable is *agriculture*, which is scheduled to rebound, from a 9 percent *decline* in 1975 to a 9 percent *growth* this year. With grain stocks down and livestock herds reduced, the agricultural situation seems bound to remain precarious.

1. Achievement of the ambitious agricultural output goal is crucially dependent on above-average weather during the rest of the growing and harvesting seasons:

(*a*) We believe that winterkill of winter grains planted last fall was higher than normal. These grains generally account for one third of Soviet grain harvests.

(*b*) Soil moisture conditions for spring grains, which will be planted this month, have been improving steadily, but are still not good following last year's drought.

E. In the area of *consumer welfare*, the Soviet populace this year faces the prospects of the smallest gains in the Brezhnev era.

1. The rate of increase in per capita *real* income will decline from the 1974–75 level, and the rise in the average wage for workers will be held below 3 percent. Both indicators reflect the limited prospects for increased supplies of consumer goods and services, as well as the leadership's determination to restrain inflationary pressure.

2. Probably the most serious problem affecting the Soviet consumer this year is the anticipated *one-fourth drop in per capita meat consumption.* This will return the populace to the level of the late 1960s:

(*a*) Despite gains during the past decade, the average Soviet citizen still eats only two fifths as much meat as his U.S. counterpart and three fourths as much as the average Pole or Hungarian.

(*b*) As meat supplies are relatively abundant on the world market, we expect that the Soviets will import meat products this year. They *could* buy as much as a million tons—their logistical limit—which would raise per capita supply by about 10 percent; this would also add another 1 billion dollars to their already large import bill.

F. The 1976 plan calls for a rise of 13½ percent in the value of *foreign trade*, a rate that probably will be exceeded by a wide margin based on past experience and the likelihood of continued inflation.

1. In their hard-currency trade, the Soviets probably will run a deficit on the order of 3–5 billion dollars.

2. The 1976 import picture is fairly clear. Imports from the West will continue to rise under the $8 billion in contracts for plant and equipment signed in 1974–75, and the grain bill will be at least 2 billion dollars.

3. On the export side, Soviet prospects depend primarily on the degree and pace of recovery in the West.

4. To finance the deficit, the Soviets will continue to resort to both credits and gold sales. As a result, they will end 1976 with an external debt substantially higher than at yearend 1975, but one that will still be within manageable limits.

The new five-year plan

III. I will conclude this section, Mr. Chairman, with some comments on the Five-Year Plan for 1976–80, and then a few general observations.

A. The USSR is starting the new plan period on an inauspicious note, with the consequences of the 1975 crop failure being felt strongly this year.

1. The new plan presumably was in fairly firm shape, at least in its basic guidelines, before last year's drought occurred. Consequently, the planners must have had to do some serious redrafting in the last half of 1975.

2. In the process they apparently opted for realism and moderation in setting goals. They seem to have largely avoided the taut and overambitious plans traditionally preferred by the Kremlin.

B. The 1976–80 targets imply a GNP growth of 5 percent on an average annual basis—*somewhat lower* than what was actually achieved in the 1960s. It is also lower than it first appears because it is calculated against a somewhat depressed 1975 base.

C. In brief, the guidelines are as follows:

1. *Agriculture* will continue to receive an unusually large share of the country's total investment despite—or perhaps because of—this sector's disappointing development record;

2. Growth in *industry and construction* is to feature gains in productivity and improvement in quality rather than brute force increases obtained through greater inputs of labor and capital. As you know, Mr. Chairman, this is a very old, almost wistful, theme in Soviet economic planning;

3. Under the plan the *consumer* is to hold his own compared with other resource claimants;

4. We believe that long-term growth in *military spending* will continue for the next few years, albeit perhaps at a more moderate pace. I will treat this special subject a bit later.

5. *Trade with the West* will increase in volume and in overall importance to the economy; this trade continues to play an essential role in Soviet modernization efforts.

D. Let us look at *industrial* plans first. Industry is expected to continue its same steady rate of expansion as in the 1960s, at an average annual rate of 6½ percent. The Soviets place even greater emphasis on higher *quality* of output and on the increased application of advanced technology.

1. Machinery output—the source of equipment investment, military hardware, and consumer durables—is slated to grow at 9.2 percent annually, well above the 8 percent rate achieved during the first half of the decade.

2. This high projection reflects the intention to raise the share of investment funds spent on *equipment* rather than on the construction of new facilities.

E. *Agricultural* growth is to be substantially higher than normally scheduled—an average of 5½ percent, but this is against the low 1975 base.

1. The increase depends heavily on achievement of the grain harvest target of 215–220 million tons *per year* for the next five years. Except in 1973, when the harvest reached a record 222.5 million tons, the Soviet grain crop has always fallen well below this range.

2. Apparently the leadership believes the 1975 downturn was an aberration unlikely to be repeated. In contrast, *we* conclude that the frequency of weather-related crop shortfalls foreshadows unfavorable conditions in at least one—and perhaps two—years out of the next five.

F. The rate set for new *investment* is unusually low: As a result, the Soviets will be hardpressed to maintain the traditional high rates of increase in their stock of new plant and equipment.

1. The most striking change is the slow growth projected for *capital* investment—4 percent, or only three fifths of the growth actually achieved during the three preceding five-year plan periods:

(*a*) The planners hope this reduction will force managers to use capital more judiciously—by completing unfinished projects faster and by using of more technologically advanced machinery and equipment.

(*b*) We are skeptical. The Soviets have been down this road before. While they have made some short-term gains, before long their planning and management system tends to undercut these initiatives.

G. As for the *consumer*, he can expect a moderate, if slower, increase in his living standards. The regime has indicated to the populace that its interests will not be sacrificed unduly to achieve other economic goals.

H. In the area of *foreign trade*, the 5 to 6 percent average growth rate planned for 1976–80 is probably conservative, inasmuch as actual trade has usually exceeded original targets.

1. Eastern Europe will remain the USSR's major trading partner, but the developed West have a somewhat larger share of total Soviet trade.

(*a*) In buying from the West, the Soviets plan to concentrate on advanced equipment and technology; exports to the West will again feature fuels and industrial raw materials.

(*b*) Despite the recent rapid rise in Soviet hard-currency indebtedness, we expect the USSR to continue the extensive use of Western credits in 1976–80.

(*c*) The Soviet Union should be able to turn over its hard-currency obligations without any real problems, assuming (1) that Western governments remain willing to keep lending to Moscow and (2) there are no unusually severe or consecutive agricultural reverses.

Prospects

IV. In the past we have characterized the Soviet economy as having great crude strength. Growth has come more from the expansion of the number of units of labor and capital than from increases in the quality and efficiency of labor and capital.

A. The Soviet leadership has insisted upon a rapid rise in expenditure on new plant and equipment and has extracted as large a work force as possible out of the populace. These have been hard-core economic policies.

B. At the same time, the leadership has failed to close the productivity gap with the developed West. Measured in output per unit of capital and labor, productivity is only about one-half that of the US.

C. Given this mixture of achievements and shortcomings in mobilizing resources, the Soviet economy has demonstrated sufficient strength to do three things: (a) provide adequate support for an aggressive foreign policy and a formidable military posture, (b) slowly narrow the production gap with the US, and (c) gradually raise the level of consumption of the Soviet people.

D. There are telling indications, however, that the Soviet economy will develop less rapidly than in the past.

1. The current slowdown in the flow of new investment will force the USSR to operate an industrial plant that is growing older and more obsolescent.

2. Annual increments to the labor force are scheduled to slow markedly by the early 1980s.

3. We doubt that the Soviet leaders will benefit as much from the application of new technology as they obviously desire. Party thinking opposes radical reform of the economic system involving decentralization of decision-making and the introduction of effective financial incentives.

E. Intimately related to the outlook, of course, is the share of Soviet resources allocated to defense—a subject I am about to discuss. Let me note now only that if the Kremlin continues to allocate as great a share of GNP to defense programs as it does now, it will be hard pressed to sustain the 4½ percent average GNP growth rate achieved over the past decade.

PART II. SOVIET DEFENSE COSTS

I. Mr. Chairman, I will now turn to the allocation of resources to military and space functions in the Soviet Union. As you know, we completed our latest estimate of the *dollar* costs of reproducing Soviet military programs in the US in February. We have also published, in the last week, a major revision of our estimate of Soviet *ruble* spending for defense.

New information

A. Before I review these estimates with you, I'd like to put them in context by discussing the new information and analysis which underlies the revisions. Some of our new data result from normal, annual revisions in our estimates of the size and characteristics of Soviet forces—the building blocks which we use to construct our dollar and ruble estimates.

1. For example, as a result of the latest round of National Intelligence Estimates the intelligence community has revised its figures on the production rate of the Backfire bomber and of some major ground force weapons. We also revised our estimates of the deployment rates of several strategic missiles and tactical aircraft.

2. In the spring of last year we completed a major interagency study of Soviet military manpower. That study resulted in an upward revision of the estimated level of active military manpower, and an offsetting decrease in estimated civilian manpower. We also made some changes in the distribution of manpower along the Soviet military services.

3. We also improved our knowledge of the technical characteristics of Soviet weapons. For example, we have determined the characteristics of the new Soviet strategic missiles more precisely.

B. As part of our continuing effort to improve our costing techniques, we conducted an extensive survey aimed at identifying aspects of Soviet military programs which were not explicitly accounted for in our previous estimates.

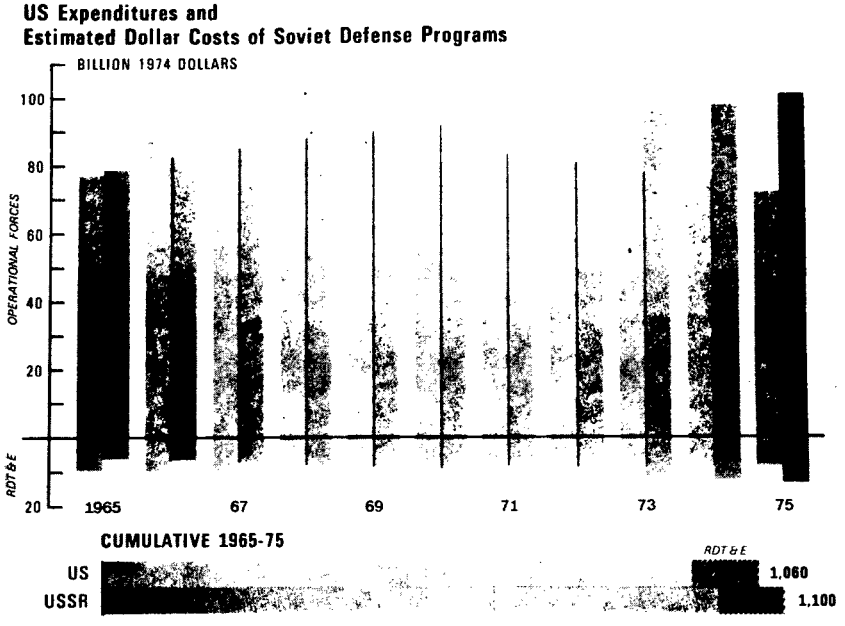
1. This year, we have included, for the first time, explicit estimates for Soviet preinduction military training and utilities for military facilities.

C. We also made major improvements in the past year in our methodologies for estimating the *dollar* costs of Soviet weapon systems. Some of the top weapons experts in the US military and in industry helped us.

Impact of changes on dollar cost estimates

II. To illustrate the impact of these changes, let me now discuss our latest estimates of what it would cost in dollars to reproduce Soviet military programs in the U.S.

A. Our current estimate—shown on this chart—is that the dollar cost of Soviet military programs *for 1975* is 114 billion dollars, expressed in constant 1974 prices. (*Chart: US Expenditures and Estimated Dollar Costs of Soviet Defense Programs.*) That total exceeds comparable US authorizations for 1975 by about 40 percent.



NOTE The dollar figures for the USSR are estimates of what the Soviet forces and programs would cost if developed, purchased and operated in the US. For operational forces the figures are obtained by costing directly individual Soviet forces and programs. The estimated dollar costs of Soviet RDT&E are derived in the aggregate using a less certain methodology and should be viewed only as rough measures. For this reason they are shown separate from the dollar costs of operational forces. The US defense expenditure series is based on Total Obligational Authority (TOA) data from *The Five Year Defense Program* January 1976 (Department of Defense). The US data are in fiscal year terms and the estimated dollar costs of Soviet programs are in calendar year terms.

1. If the costs of pensions are subtracted from both sides, Soviet programs *in 1975* exceed US authorizations by some 50 percent.

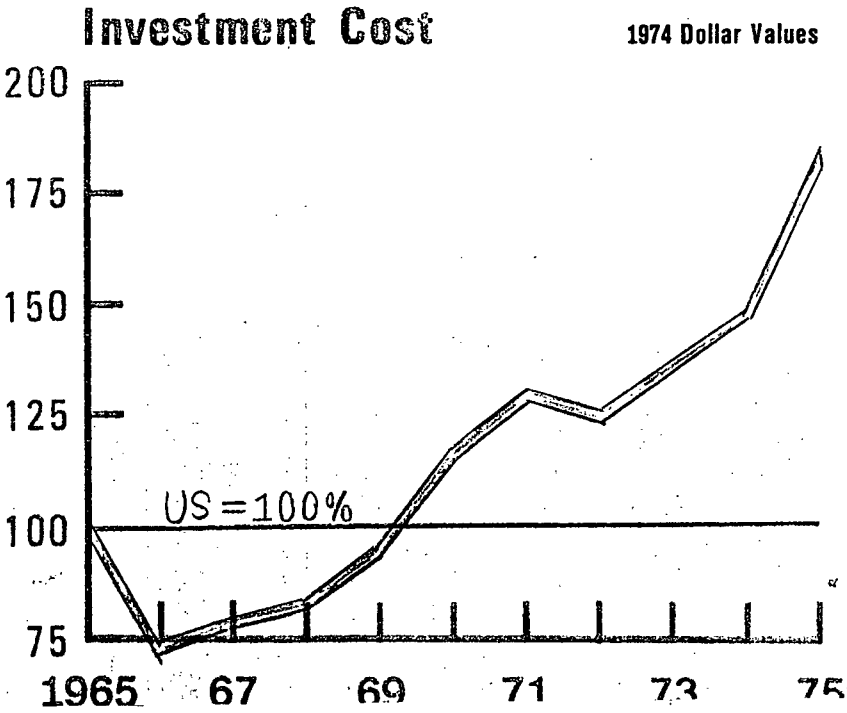
B. The last published CIA estimate, disseminated in January 1975, showed the total dollar costs of Soviet defense programs exceeding US authorizations by 20 percent *in 1974*.

C. The estimates which I have been discussing with you today show the dollar costs of Soviet programs exceeding US authorizations *in 1974* by about 30 percent.

D. This upward adjustment of about 10 percent was caused by two factors. The first was a downward revision in US authorizations in the latest Five Year Defense Program. But more important were the changes which I have just described in our estimates of the size and costs of Soviet programs.

1. The comparison between US and Soviet programs is particularly striking in the investment area, shown on this chart. (*Chart: Dollar Cost of Soviet Programs as a Percent of US Defense Expenditures—Investment Cost.*) In investment—which includes procurement of weapons and equipment and construction of facilities—estimated dollar costs for Soviet programs exceeded US spending by 85 percent in 1975.

Dollar Cost of Soviet Programs as a Percent of US Defense Expenditures



E. I'd like to note that the comparisons I've just made represent nearly the limit of utility of our dollar cost estimates.

1. They can provide a *general appreciation of the magnitude* of Soviet defense activities in terms familiar to US decision makers. They can also reveal broad *trends in relationships* between the US and Soviet defense establishments that are difficult to measure in other ways.

2. While there is *some* relationship between dollar costs and military *capabilities*, the dollar cost estimates can *not* be used to draw inferences about relative military effectiveness. Other data, such as the composition of the forces, the characteristics of weapons, and the strategic environment in which they might be used, are far more important in making such judgments.

3. Moreover, we should bear in mind that the two powers have different military requirements. Our bombers, for example, impose a heavy need on the USSR for air defense; the reverse is not true.

4. Nor can these dollar numbers be used to draw conclusions about the burden of defense on the Soviet economy. For that purpose we estimate Soviet defense spending in rubles.

Revision in ruble estimates

III. Let me now turn to our estimates of Soviet ruble expenditures for defense.

A. Our ruble estimates—like the dollar estimates I have just discussed—are based primarily on a direct-costing methodology.

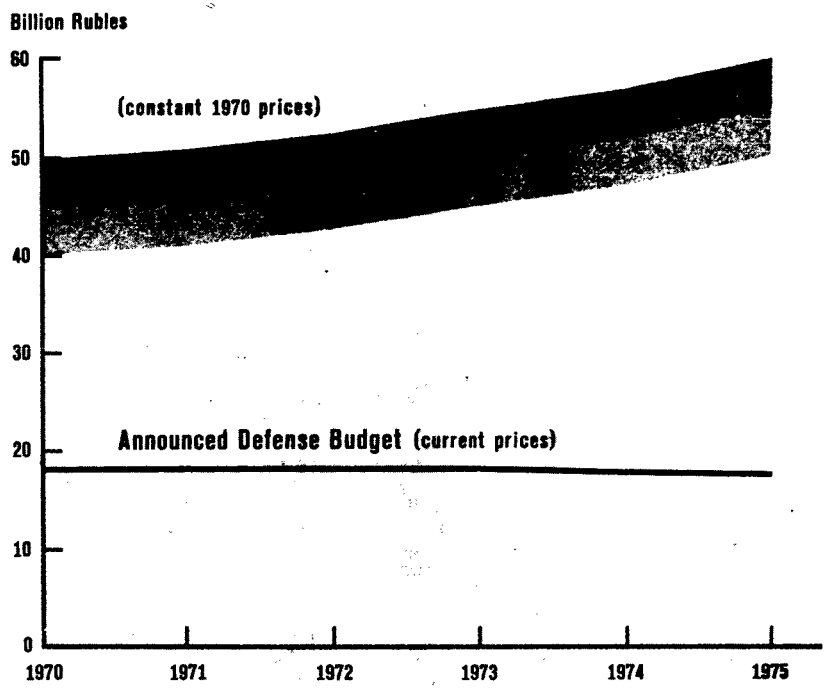
1. Both estimates begin with the detailed identification and listing of the physical components and activities which make up the Soviet defense program for a given year. The physical forces and programs which we cost in rubles are precisely the same as those which we cost in dollars. Consequently, changes in our appreciation of the Soviet force structure have an impact on both the ruble and dollar estimates.

2. To estimate some ruble expenditures, like personnel costs, we apply ruble costs directly. For other items, we convert the estimated dollar costs of Soviet equipment and activities to ruble terms. We do this by applying ruble-to-dollar conversion ratios for various classes of equipment and programs, reflecting our appreciation of the relation of Soviet to US prices in these areas.

B. As a result of an intensive collection and analytical effort over the past several years, we have acquired a great deal of new information on the ruble prices of Soviet military equipment. This new data has changed markedly our appreciation of the ruble costs of Soviet military programs, particularly in high technology areas. This resulted in major adjustments in many of the ratios used for conversion from dollar to ruble terms.

C. The effect of the changes I have described so far is illustrated on this chart, which shows our latest estimates of Soviet defense spending in rubles. (*Chart: Estimated Soviet Expenditures for Defense, 1970–75.*)

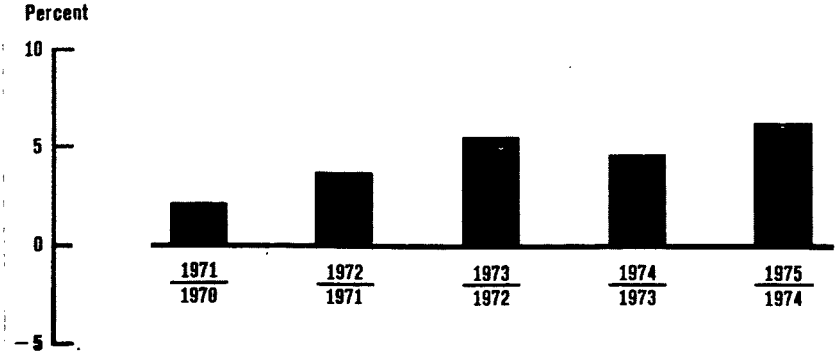
Estimated Soviet Expenditures for Defense, 1970-1975



Estimate defined as the Soviets might view their defense effort.

Estimate defined for comparison with US accounts.

Annual Rates of Growth*



*Calculated in 1970 Rubles.

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1. In our estimates, we have postulated two possible definitions of defense activity, because we do not know precisely how the Soviets account for their defense programs. Using a definition which encompasses a range of activities comparable to those included in the US budgetary definition of defense, we estimate that the USSR spent some 40–45 billion rubles in 1970. In 1975 estimated total outlays for these purposes had risen to 50–55 billion rubles, measured in constant 1970 rubles. This is shown by the lower band on this chart:

(*a*) Under a broader definition—one which the Soviets might use and which would include additional military-operated programs such as the entire space program—we estimate that total defense spending amounted to 45–50 billion rubles in 1970 and rose to 55–60 billion rubles in 1975. This definition is portrayed by the upper band. The single line below shows the announced Soviet defense budget.

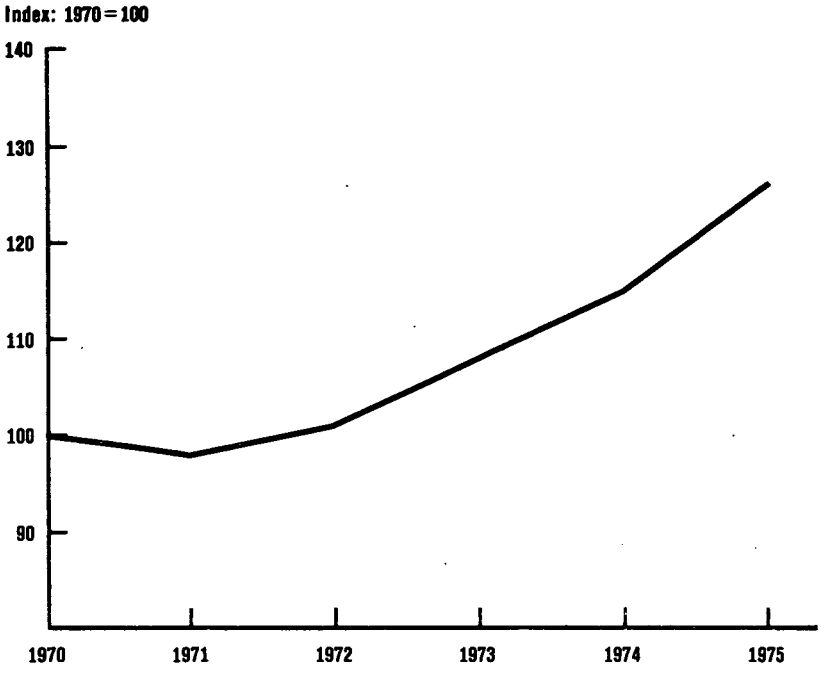
2. The new estimates for 1975 are about twice the previous intelligence estimate of defense spending in that year. About 90 percent of the increase in the estimate is accounted for by our new understanding of Soviet prices and costs.

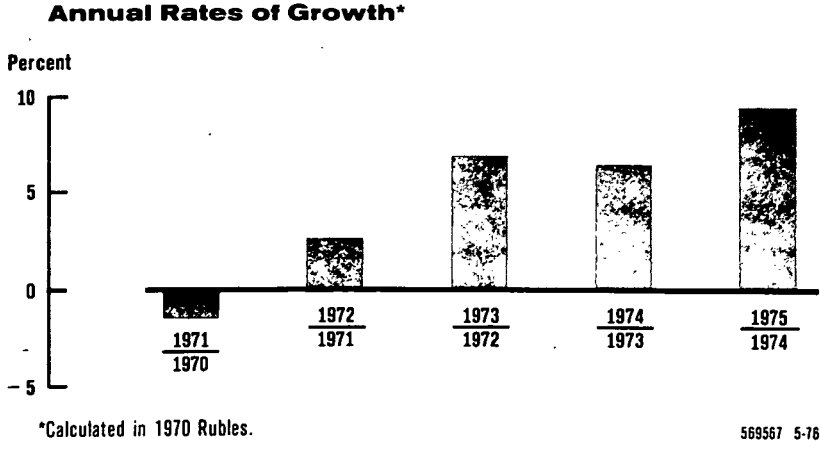
3. Our new estimates indicate that the average rate of growth in ruble expenditures for defense during 1970–75 was 4–5 percent. The annual growth rates varied during the period, however, as shown on the lower part of the chart, reflecting primarily the contraction and expansion of procurement outlays for strategic missiles. Historically, the growth in total Soviet defense spending has accelerated during periods when the USSR re-equips its forces with new strategic weapons. As these programs reach completion, the rate of growth in overall spending tends to decline.

4. Previous estimates, while showing the same general pattern of growth, placed the long-run average annual rate of growth of Soviet defense expenditures in rubles at about 3 percent. The new ruble prices of military hardware indicate that high-technology programs—the most rapidly growing component of Soviet military expenditures—are much more costly to the Soviets than we previously believed. As a result, the new estimates show more rapid growth.

5. This chart shows how our new estimates of ruble prices for Soviet *equipment* have affected the growth rates. (*Chart: Estimated Soviet Defense Investment Expenditures, 1970–75.*) Investment—procurement of weapons and equipment and construction of facilities—comprises about 40 percent of total Soviet defense spending in rubles. This growth reflects both the emphasis the Soviets are putting on modernizing their forces with new, high technology systems and the fact that these items are extremely costly to them.

Estimated Soviet Defense Investment Expenditures, 1970-1975*





*Calculated in 1970 Rubles.

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IV. All of our new data taken together, have enhanced considerably our confidence in our revised estimates. I want to emphasize, however, that much of the new data underlying the revision is still being evaluated. Consequently, the estimates should be considered as interim, and subject to change as the work progresses and new information is acquired.

A. The methodology we use contains inherent limitations and while the new data do improve our confidence in the present results, they must be treated with reserve.

Resource implications

V. To close this portion of the briefing, I'd like to discuss the resource implications of our new ruble estimates. Although no single measure adequately describes the economic impact of the Soviet defense effort, defense spending as a share of gross national product is often used for this purpose.

A. When measured according to a definition of defense activities roughly comparable to that used in the U.S., *the Soviet defense effort absorbs some 11–12 percent of Soviet GNP.* When the calculation is based on the broader definition of defense, the share increases to about 12–13 percent. Because the rate of growth in defense spending was roughly the same as the growth in GNP during 1970–75, there was little change over the period in the share taken by defense.

1. The new estimate of the share of defense in the Soviet GNP is almost twice as high as the 6–8 percent previously estimated. As Mr. Bush stated earlier, this does *not* mean that the impact of defense programs on the Soviet economy has increased—only that *our appreciation* of this impact has changed. It also implies that Soviet defense industries are far less efficient than we formerly believed.

B. Another economic aggregate which may be used to describe the impact of defense programs on the economy as a whole is the defense share of machinery output. At present Soviet defense takes about one third of the output of the machine-building and metal-working sector—the sector that produces investment goods as well as military weapons and equipment.

C. We do not know exactly how the Soviet leaders evaluate the size and economic burden of defense. Some leaders often make public statements which reflect their concern about the sacrifices in economic growth and consumer satisfaction that follow from their defense priorities. This concern, however, has not prevented steady increases in military programs. Major defense programs have been generously supported even in periods of economic setbacks.

1. Of course this situation may not always obtain, and the problem of lagging economic growth will make steadily rising defense costs a painful issue for the leadership:

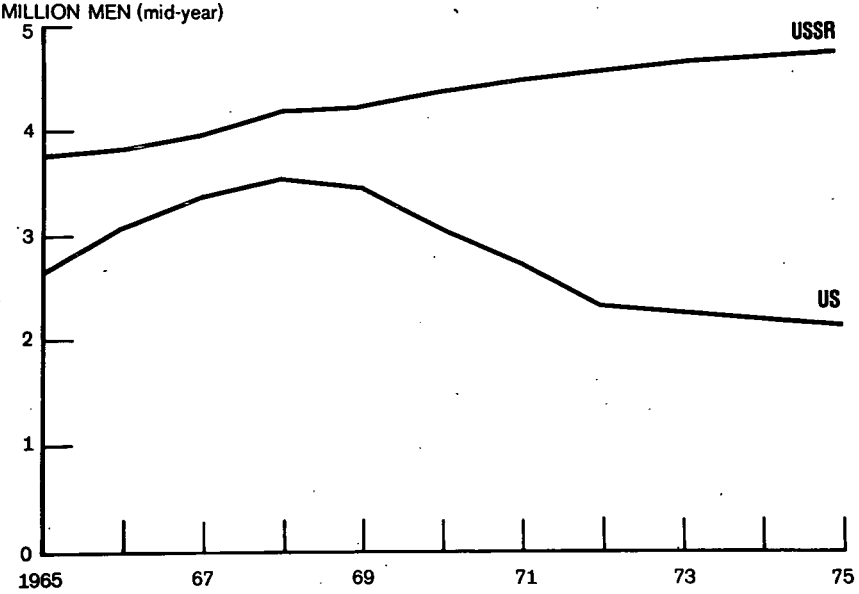
(*a*) But the economic burden will not be the only, or perhaps even the major, consideration in its specific decisions on future defense programs.

(*b*) Other factors—such as the leaders' views of foreign military threats, the powerful institutional forces which support defense programs, progress in arms limitations negotiations, and the momentum of technological advances in the defense sector— will also have a major impact.

2. While the implications for future programs of our new perception of the Soviet defense effort are not yet clear, *we believe that long-term growth in military spending will continue,* albeit perhaps at a more moderate pace for the next few years. The annual increment in Soviet GNP is large enough to allow both increases in defense spending and at least slow improvements in living standards. Moreover, even the present level of Soviet defense investment programs is so high that with modest rates of growth—or even with a constant level of defense spending—*inventories* of military equipment *could continue to rise.* Much work remains to be done, however, in assessing the implications of our new estimates of ruble defense expenditures for future Soviet policy decisions.

VI. Mr. Chairman, we have more detailed data on the allocation of our estimates to military mission or resource categories. Rather than go into them here, I will make this information available to your committee as part of the sanitized version of our testimony, and proceed now to the question of China.

US and Estimated Soviet Active Military Manpower



NOTE: The manpower series for the USSR includes border guards, internal security troops, and construction troops, for which the US Armed Forces have no counterpart.

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PART III. THE CHINESE ECONOMY

Data availability

I. In turning to China, Mr. Chairman, let me stress one basic analytical problem: very little hard economic information is available on China, compared with the large amounts concerning the USSR.

A. Nevertheless, we do have enough data from official and non-official sources to establish the outlines of economic policy; to analyze foreign trade in some detail; and to ascertain *general* trends in domestic output, weapons development, construction, and consumer welfare.

Development objectives

II. In its planning, Peking has two fundamental economic objectives: first, to maintain an adequate level of food and clothing for the growing population; and second, to develop a modern industrial base that, while small, will be capable of supporting a strong defense force.

A. In pursuit of these objectives, China initially adopted the Soviet model for both its economic organization and its pattern of resource allocation.

B. Soon, however, it became apparent that Soviet-style policies and institutions were in many ways inappropriate.

C. In the first major reform, you may recall that in 1957 Peking tried to increase efficiency by revamping its highly centralized planning and management procedures to allow for *greater participation by the provinces and lower levels.*

D. The second major change was begun in the early 1960s, following a series of crop failures. China was forced to increase the share of resources going to *agriculture.*

1. With land limited, expansion of production had to come from increased yields. This in turn required costly modern inputs such as chemical fertilizers.

2. The priority accorded agriculture showed most recently in 1972–73 when the Chinese decided to make large-scale purchases of Western plants and equipment to produce chemical fertilizer and synthetic fibers.

E. Next in investment priority, following agriculture and those industries directly supporting agriculture, are certain segments of industry, the military establishment, and transportation and communications.

1. In industry, the favored positions of the petroleum and petrochemical industries are clear. An investment shift benefiting coal and iron ore mining, and especially finishing facilities for steel products, has also been taking place.

2. In transportation, large investments have been made at China's major seaports to handle the recent sizable expansion in foreign trade.

Consumption trends

III. What, you may ask, has been the result of these shifts on the Chinese people?

A. Probably most important is the fact that *per capita real consumption has gradually risen,* even though the *share* of national output going for consumption has steadily *declined.* This rise in consumption has appeared largely first in industrial consumer goods and second in services provided by the state, particularly health and education.

1. Consumption has grown most rapidly in rural areas. They have benefited from government policy to encourage production and to narrow the gap between income in the countryside and the cities.

2. The slower rate of urban consumption growth has caused some labor problems in recent years. Average wages are now only slightly above the level of the late 1950s.

B. Widespread dissatisfaction with wages became apparent during the 1974 campaign to criticize Lin Piao and Confucius.

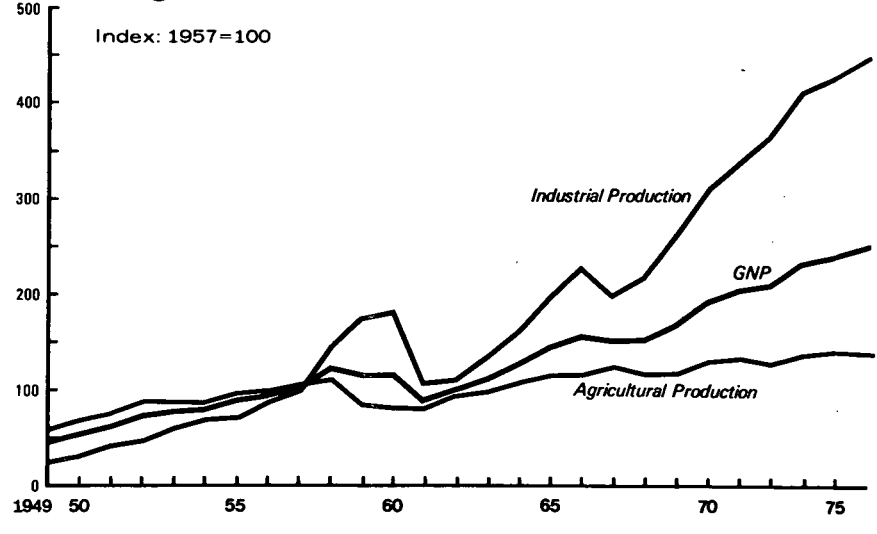
1. Despite a highly-charged political atmosphere, which made it risky to complain about personal welfare, workers persisted in voicing their grievances.

2. While officials have hinted that the problem will be dealt with in the future, it will not be readily solved because it involves political issues of ideological versus material motivation—plus the practical problems of allocating scarce resources.

Economic growth since 1965

IV. I will now turn to the trend of Chinese economic growth over the past ten years. (*Chart: China: GNP, Industrial Production, and Agricultural Production.*)

China: GNP, Industrial Production, and Agricultural Production



A. As this chart shows, the rise has been impressive, but erratic. Domestic political upheavals largely explain the uneven pattern.

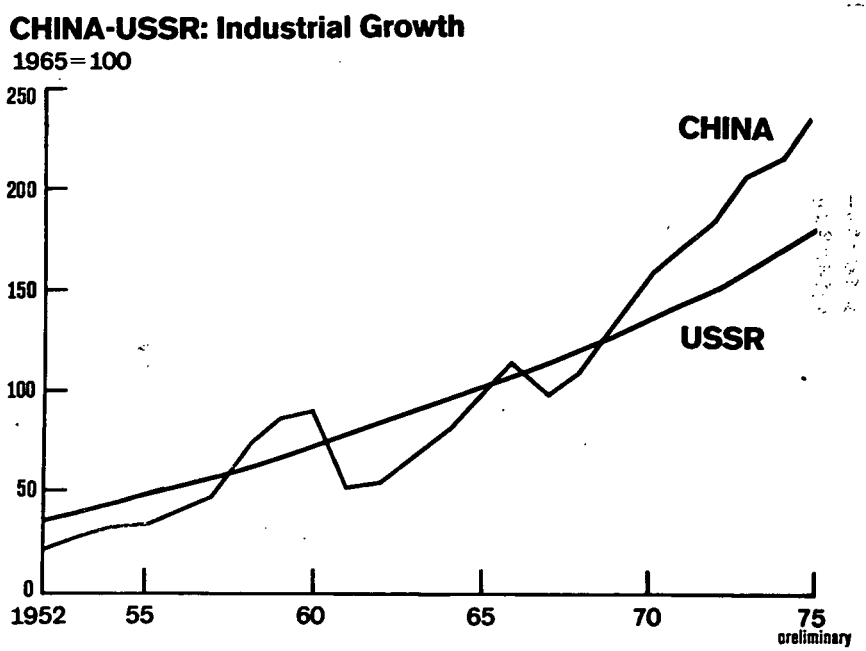
1. As you see, production fell sharply in the aftermath of the Great Leap Forward (1958–60) and to a lesser extent during the Cultural Revolution (1966–69).

2. The anti-Confucius campaign in 1974—although less disruptive—took its toll slowing the expansion of output.

B. Nevertheless, with the help of a large investment program, China's gross national product in 1975 was roughly 75 percent larger than it was in 1965.

Industry

V. China's *industrial production* grew at an even faster pace. In 1975 it was almost two and a half times the level of 1965—an average annual growth rate of 9 percent. (*Chart: China and USSR: Industrial Growth.*)



A. You can see that Chinese industrial growth compares favorably with that of the USSR, even though the pattern has been much less steady.

B. As would be expected in an economy stressing investment, output of *producer* goods has grown more rapidly than has production of consumer items—averaging 10.5 percent a year.

1. *Machinery* production, a major component of producer goods, has grown even more rapidly—by 14 percent yearly.

2. Progress in the *petroleum* industry has been particularly noteworthy. In the past decade, crude oil production has grown seven-fold, from 220,000 barrels a day to 1.6 million barrels a day.

3. But even in those sectors where growth has been less spectacular, substantial progress has been made: in steel, a troubled industry in recent years, output during the past decade has more than doubled.

C. In comparison, the growth of industrial *consumer goods* production has averaged 7 percent yearly since 1965.

1. Some items, made entirely from industrial raw materials, have grown more rapidly; for example, the output of bicycles has risen by 13 percent yearly.

2. Other items, which depend on raw materials from agriculture, are relatively sluggish; for example, cotton cloth production has grown by only 2 percent yearly.

D. Since most consumer goods in China are derived either directly or indirectly from agriculture, the practical necessity for heavy investment in agriculture becomes more apparent from the above data.

E. Before turning to agriculture, I would make a few comments on industry's figures for *1975*, when production rose by about 10 percent, up from only 5 percent in 1974.

1. First, the factors that lowered performance in 1974—coal shortages, work stoppages and transport tie-ups—were less prominent in 1975.

2. These depressing factors still had their effect, however. For example, steel production, which grew by 9 percent in 1975, was nevertheless only 2 percent higher than in 1973.

3. In contrast, the petroleum industry continued its strong growth, with a 20 percent increase.

4. Healthy gains were reported for other commodities, but in many instances these gains largely represented a step-up from the lack-luster performance of 1974.

Agriculture

VI. Now, a few points on China's agricultural picture.

A. First of all, foodgrain production in the past decade has barely kept pace with the estimated 2 percent annual growth in population. And, cotton output has not even met this low rate of growth—growing by only 16 percent over the entire ten-year period.

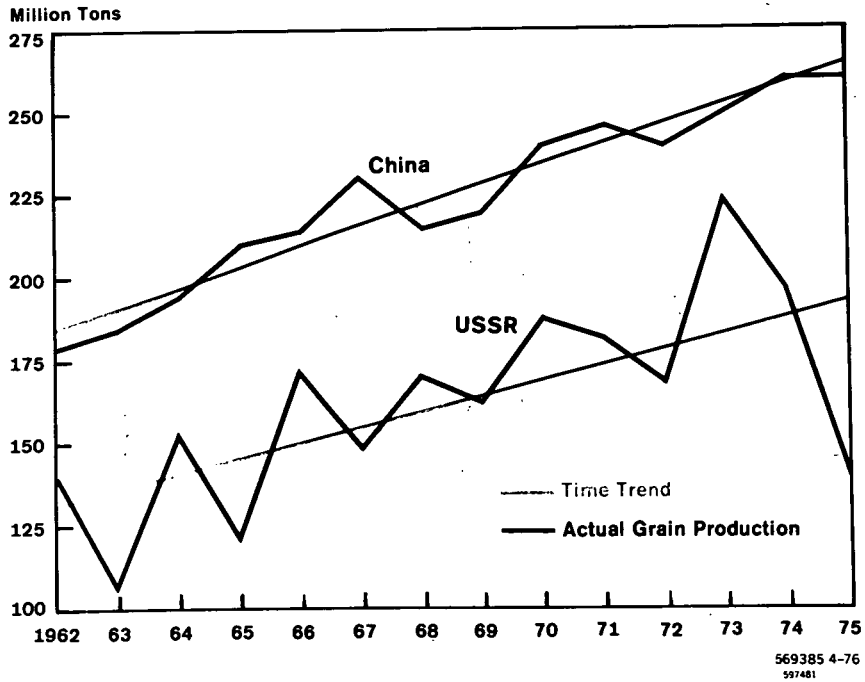
B. This may be a good place to draw attention to Peking's recent successes in population control.

1. New research indicates that annual population growth has fallen appreciably since 1970, perhaps from 2.3 percent in 1970 to 1.8 percent in 1975. A continuation of present policies should lead to even further drops in the birth rate.

2. These gains reflect Peking's sober appraisal of the difficulties inherent in raising agricultural output.

C. To return to agriculture, it is interesting to note that year-to-year fluctuations in Chinese output of grain have historically been much narrower than fluctuations in Soviet output, as this chart shows. (*Chart: China and USSR: Grain Output.*)

China and USSR: Grain Output



1. Over the past five years, for example, Soviet grain output has fluctuated by as much as 27 percent from expected output, compared with a maximum deviation of about 2.5 percent for China.

2. The primary reasons are differences in cropping practices and weather patterns.

(*a*) China practices multiple cropping, and weather patterns rarely produce a poor harvest in both North and South China in the same year.

(*b*) In contrast, the Soviet Union produces more than two thirds of its grain in regions of marginal precipitation, frequently subject to drought.

D. In 1975, Chinese agricultural production showed no appreciable improvement over 1974.

1. Foodgrain production was essentially unchanged from the record crop of about 260 million tons (excluding soybeans) in 1974.

2. Soybeans and some minor industrial crops gained slightly; cotton output may have declined by as much as 10 percent.

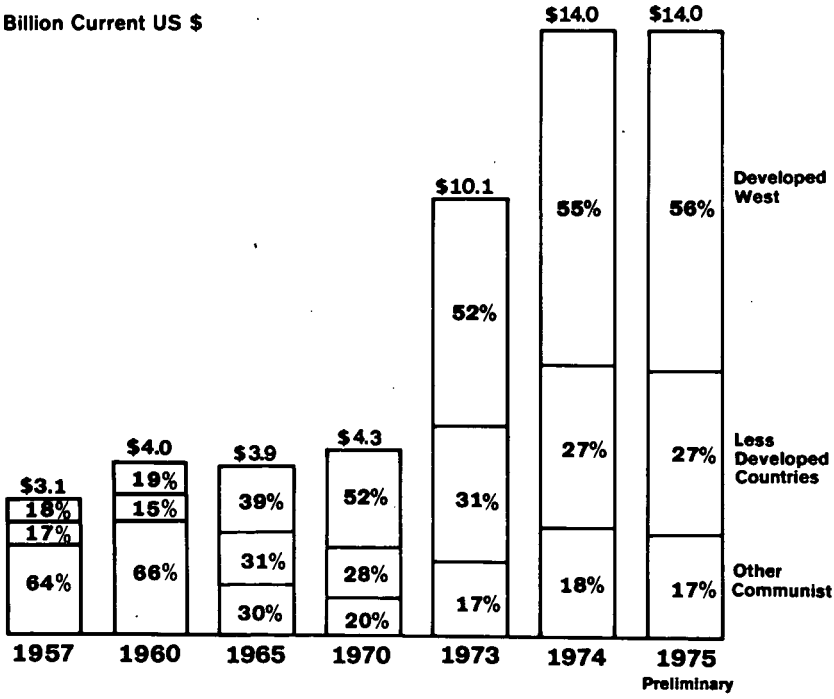
3. Improved harvests in regions surrounding North China's major cities permitted a reduction in grain imports in 1975 to only 3.3 million tons, about one half the 1974 level. Shipments were almost entirely under long-term agreements with Canada and Australia.

4. China reentered the world cotton market last fall and had purchased 70,000 tons by the end of the year.

Foreign trade

VII. I will now turn to China's foreign trade. China's total trade was $14 billion in both 1974 and 1975, as shown in this chart. (*Chart: China: Foreign Trade, by Major Area.*)

CHINA: Foreign Trade, by Major Area
Exports plus Imports



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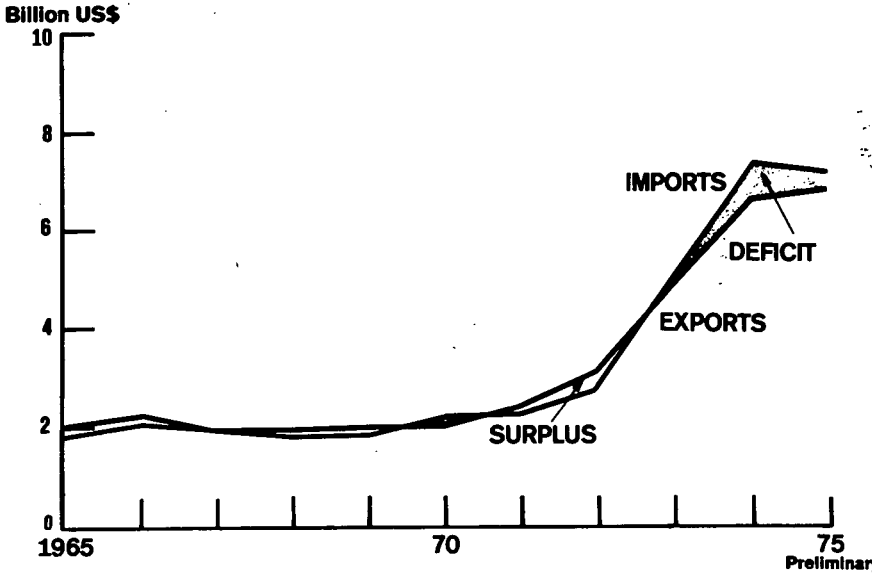
A. Taking a longer view, the value of China's foreign trade in 1975 was more than three and a half times trade in 1965, although the growth shown for recent years is exaggerated greatly by price increases.

1. The past decade also saw a further shift in China's trade orientation toward the Developed West and away from the USSR. Whereas two thirds of trade was with Communist nations in the late 1950s, the share now is less than 20 percent.

B. The jump in imports in recent years in part reflects Chinese willingness to incur debt in order to purchase Western industrial plants and transport equipment in quantity, as shown in this chart by the trade deficits since 1973. (*Chart: China: Trends in Foreign Trade.*)

CHINA: Trends in Foreign Trade



1. In 1974, the Western recession depressed demand for Chinese exports and contributed to a record trade deficit of $800 million.

2. In 1975, by trimming imports and pushing exports, the deficit was reduced to less than $400 million.

C. Imports of machinery and equipment continued to climb in 1975, reaching $2 billion, compared with $1.6 billion in 1974 and $330 million back in 1965.

D. By contrast, China cut back sharply last year in agricultural imports.

1. At $820 million, they were less than half the 1974 figure and not much greater than the $710 million of ten years earlier.

E. China's emergence in 1973 as an oil exporter came at an opportune time.

1. Earnings from expanding oil exports have compensated for falling demand in the West for Chinese textiles and a variety of light manufacturers and handicrafts.

2. Oil exports of 172,000 barrels a day to non-Communist countries earned $750 million in 1975, up from 88,000 barrels a day and $450 million in 1974.

F. During 1975 a pause took place in new purchases of whole plants from the West in order to absorb the industrial plants already ordered.

1. During 1972–74, China signed contracts for about 110 plants, worth $2.2 billion, for delivery through 1978.

Trade with the United States

VIII. As for United States-China trade, the surplus of almost $700 million enjoyed by the U.S. in 1974 fell to less than $150 million in 1975.

A. Agricultural *exports*, which accounted for 80 percent of total US exports to China in 1972–74, have been phased out for the time being.

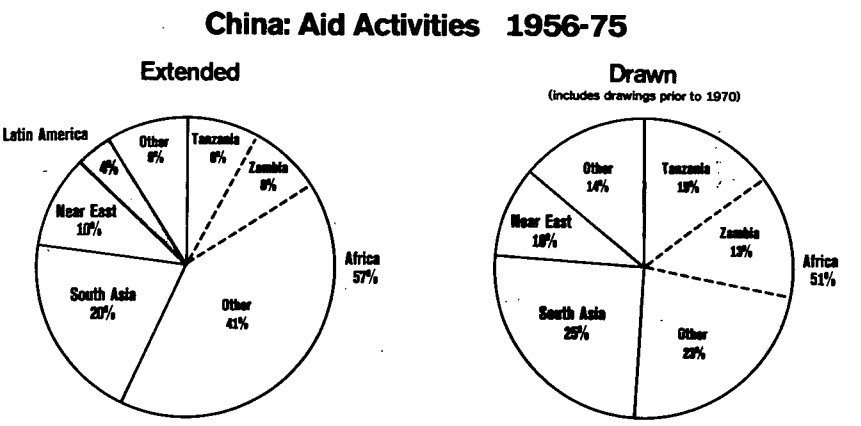
B. US exports to China in 1976 may be less than the $300 million of 1975.

1. In contrast to farm products, however, US industrial exports should continue strong on the basis of previous contracts for plants and equipment.

C. This year, US *imports* from China may rise to nearly $200 million from the $160 million of last year.

Foreign economic aid

IX. One other element worth noting is China's foreign economic assistance program. (*Chart: China: Aid Activities, 1956–75.*) During the past two decades, Peking has pledged $4 billion in economic aid to the LDCs, about two-thirds of the total going to Africa. This aid is provided through interest-free credits with extended repayment schedules.



A. About $1.7 billion of this aid has already been drawn.

B. The single most important project has been the recently completed $400 million Tan-Zam Railroad, which links the Zambian copper belt to the Tanzanian port of Dar es Salaam.

C. In 1975 the general pattern continued. Peking signed agreements for new aid totaling about $270 million, of which $180 million was with African countries.

PART IV. THE COSTS OF CHINESE DEFENSE PROGRAMS

I. In this last section of my prepared statement, Mr. Chairman, I will comment on the costs of China's defense programs. The basic consideration to bear in mind is that the Chinese military in many ways mirrors the economy that supports it.

A. For its combat strength, the greater part of China's armed forces relies upon manpower and easily manufactured, low-technology weaponry. This like most of China's economy is labor intensive, with little capital.

B. In contrast, China has also developed and deployed a limited number of modern weapons, reflecting the mastery of some of the technology of an advanced industrial nation by the economy's small, capital-intensive sector.

C. Although direct information on China's military spending is not available, it would appear that defense production accounts for a large portion of activity in the advanced industrial sector—far larger, for example, than is the case in the US or USSR.

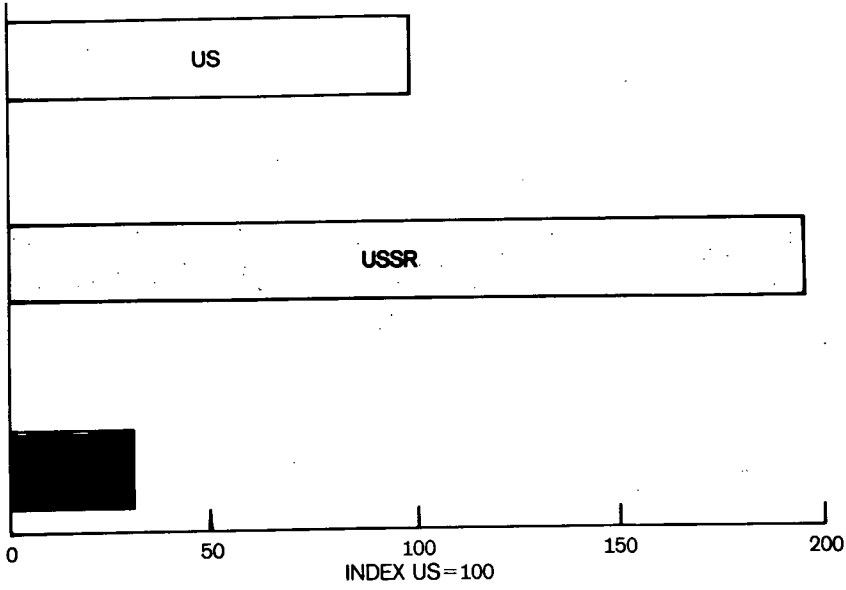
D. Some understanding of trends in China's defense effort can be obtained by examining our estimates of dollar costs for procurement of military equipment.

1. The term "procurement" as we use it here includes only the cost of *producing* arms and equipment, not any costs associated with research, development, testing, and evaluation (RDT&E), or those for facilities, personnel or operations and maintenance.

2. Let me remind you that dollar cost estimates reflect the cost of reproducing the Chinese programs *in the US.*

II. Chinese military procurement, as measured in constant 1974 dollars, grew very rapidly in the late 1960s, but after 1971 fell substantially. For the next three years it remained at a plateau about equal to the 1969 level as shown in this chart. (*Chart: US, USSR and China: Estimated Military Procurement in 1975.*)

US, USSR AND CHINA:
ESTIMATED MILITARY PROCUREMENT IN 1975



A. Much of the decline resulted from a sharp drop in aircraft production, but there was some slow-down in almost all of the Chinese weapon procurement programs. (Preliminiary rough estimates show a somewhat similar trend in RDT&E costs, with rapid growth in the late sixties, a peak in the 1970–71 period, and a subsequent decline.)

B. As you can also see in the chart, there was a distinct rise in estimated procurement costs in 1975, although the level is still much below the 1971 peak.

1. Most of this increase is attributable to more costly aircraft and to some increase in ship production.

C. What meaning do we attach to the lower level of procurement since 1971?

1. It does *not* involve a reduction in Chinese forces, but rather shows that new equipment is being delivered to the forces at a slower rate.

2. The primary *reasons* for this decline probably are:

A reduced likelihood of armed conflict with the Soviet Union;

New priorities favoring civilian economic growth by a less military-oriented leadership; and

Difficulty in developing follow-on advanced weapon systems.

III. China's past history of sudden bursts and unexpected reductions in defense production makes it difficult to judge whether the upturn in 1975 is a temporary phenomenon, or the beginning of a long-term trend. I offer a couple of projections, however.

A. First, over the next several years, as the Chinese begin to replace obsolescent equipment with more modern systems, procurement *costs* can be expected to grow somewhat, even if production in terms of *numbers* of units does not increase.

1. In 1975, for example, the increased production costs of a few relatively more modern and expensive weapon systems more than offset savings from the reduced production of older and cheaper weaponry.

B. Second, the present general ordering of military versus civilian priorities probably will persist through this decade, no matter who wins the current struggle for political power.

1. This is because the two most important bases of this ordering will continue to be the controlling factors for the remainder of this decade. I refer to the *cost* and difficulty of a more ambitious weapons effort, and the urgency of China's *need to modernize* and expand its basic agricultural and industrial production capacity.

C. Third and last, this does *not preclude* further military growth and modernization.

1. If economic factors dominate defense policy decisions, the growth and modernization can be expected to proceed at a measured pace that will probably increase gradually as China's industrial base expands.

2. A sudden diversion of resources into defense production, however, *can not be ruled out* if Chinese policymakers were to perceive a substantially greater external threat. As you know, China's perception of an increased threat from the USSR in the late sixties led to the rapid expansion in defense programs at that time.

3. Moreover, China's now enlarged military industrial base, resulting from that buildup, provides China with the potential for a much greater military production effort.

Chairman PROXMIRE. The one thing we don't get when the full prepared statement is not read is a chance to see all the charts in the context of the narrative. I would appreciate it, therefore, if you could use as many of the charts as possible in answer to the questions, and also since the charts are diagrammatic, I would ask you, if possible, to supply for the record the statistics and tables on which the charts are based.

SOVIET ECONOMY—WEAK IN 1974, DISASTER IN 1975

The main impression I get from the full prepared statement about the Soviet economy is that 1975, you say, was a disastrous year, following a weak performance in 1974, caused principally by crop failures. Do you share that overall impression?

Mr. BUSH. It certainly is my impression, sir, that the grain harvest, which was well below their original projections, has caused some real concern in the Soviet Union. The planners are now coming forward for next year with a not particularly ambitious step-up. But I think all analysts that I have dealt with at CIA feel strongly that the grain situation was not just a minor aberration; the decline in their harvest was substantial. It caused the slaughtering of beef, for example, which, though it filled the meat market counters, demonstrated its severity. When I was in Peking, the Chinese suggested that maybe the whole thing was an effort by the Russians simply to get our grain and to store it everywhere, as Chairman Mao preaches. We don't think from our analysis of Soviet grain storage that this is what is happening at all, although they do have strategic grain storage.

And so I think, sir, it is fair to conclude that the agricultural decline was a serious matter.

Chairman PROXMIRE. The agricultural decline in the Soviet Union has a far greater effect, I would imagine, than that kind of problem in this country, although it would be very severe in this country. I say that because of the information the CIA has given us in the past, that whereas here we have about 4½ percent of our people in agriculture, there they have one-third, roughly 33 percent. So when you have a segment of the economy that goes down like that, you will have enormous suffering.

Was there any other element in the Soviet economy that contributed to a weak year in 1974 and a very poor year in 1975?

PROBLEMS RELATED TO AGRICULTURE SECTOR

Mr. PROCTOR. The agricultural shortfall affected industry, especially the consumer sector where cotton and other agricultural products feed into industrial production, so there was a slide on industrial production especially in those sectors that were affected by agriculture.

Mr. BUSH. But I don't believe there was any other major economic disruption that was unrelated to agriculture.

GRAIN PRODUCTION ESTIMATES

Chairman PROXMIRE. Do you have an estimate for the Soviet grain production in the current year 1976?

Mr. BUSH. No, sir, we don't have an estimate. All we have is their goal, which was up—last year they put out 140 million tons output, and this year they are planning 205 to 210 million tons. But we do not yet have an estimate.

Chairman PROXMIRE. Last year the CIA, the staff tells me, gave us the Soviet's estimate, or our estimate of the Soviet production for 1975. Why isn't there that estimate available this year?

Mr. BUSH. Mr. Proctor.

Mr. PROCTOR. It is too early. Some of the grain was planted this month, replacing the grain that was planted last year in the winter season. It is just too early to make a projection, because there are several very vital points in time during the growing season that still have to occur.

Chairman PROXMIRE. Last year's hearing was about 3 weeks later. That was a June 18 hearing. Does it make that much difference? In this country, of course, we have very definite estimates made months before as to what our 1976 crops would be, since it was winter wheat, and we are able to forecast with considerable accuracy in late winter or early spring our own crop.

Mr. PROCTOR. Let me turn this over to someone else. They have a very different planting cycle than we do.

Mr. DIAMOND. Senator, in this country about 80 percent of our wheat crop comes from winter wheat as a source. In the Soviet Union 55 percent of the wheat comes from spring-sown wheat and the balance from winter wheat.

Chairman PROXMIRE. How do you explain the facts that last year they gave us an estimate in June and this year you can't give us one in late May?

Mr. DIAMOND. Last year the crop was about 2 weeks earlier in the Soviet Union.

This year 40 million hectares, or about two-fifths of all spring and summer grains, and about 30 percent of the total grain, remains unsown as of mid-May.

Chairman PROXMIRE. Let me put it this way. Last year's wheat failure in the Soviet Union was cause by severe drought, primarily?

Mr. DIAMOND. That is correct.

Chairman PROXMIRE. Is there any indication of what the climatic condition will be this year, better, the same or what?

Mr. DIAMOND. Better this year.

Let me amend this right away and say that the winter kill, of fall sown grains is higher this year. We estimate that out of 37 million hectares 11 to 12 million hectares were lost.

Chairman PROXMIRE. This year could be as bad as 1975?

Mr. DIAMOND. But spring this year is much better. Right now soil, moisture conditions, and temperature are favorable to plant development and seeding. Seeding is just on time, and not too early, and not too late.

Chairman PROXMIRE. I understand that the grain harvest in 1975, 140 million tons, represented a shortfall of about 75 million tons from the plan or target for that year, is that correct?

Mr. DIAMOND. That is correct.

Chairman PROXMIRE. What is the grain target for 1976?

Mr. DIAMOND. Well, 205, to 210 million tons is the target.

Chairman PROXMIRE. What is it again?

Mr. DIAMOND. 205 to 210 million metric tons for this year. We don't think they will make that.

Chairman PROXMIRE. So it is close to the same as it was in 1975, and you think they won't make it again, but they will look in better shape?

Mr. DIAMOND. That is right.

ECONOMIC GROWTH

Chairman PROXMIRE. I understand that overall Soviet economy growth in GNP was down to about 2.5 percent.

Mr. DIAMOND. 2.3 percent.

Chairman PROXMIRE. What is the last time the overall growth was slowed to the same extent in the Soviet Union?

Mr. DIAMOND. 1972 was about 2½ percent.

Chairman PROXMIRE. Is there any forecast of growth in 1976?

Mr. DIAMOND. No. Since agriculture contributes such a major proportion of the gross national product in the U.S.S.R. as opposed to the proportion in this country, and because agriculture is highly cyclical, it would be a pure guestimate now as to how much growth there will be in 1976.

For example, net agricultural production last year decreased 9 percent. In 1976 the U.S.S.R. plans a 9-percent increase in farm output.

The planned growth for this year is 4½ percent.

Mr. BUSH. Four and a half percent.

Mr. DIAMOND. But they will have to press to make that 4½ percent.

DISTRESS SLAUGHTERING

Chairman PROXMIRE. You spoke about distress slaughtering and about how in 1975 the grain wasn't available, so they slaughtered the animals earlier. Is that continuing this year?

Isn't there some evidence that the outlook isn't good?

Mr. DIAMOND. Well, certainly for meat production. We are estimating this year, as is noted in the prepared statement that we submitted to you, that per capita meat availability will be a fourth below last year. And this in part reflects the continued slaughtering especially among the main grain consumers, hogs and poultry. Hog numbers as of May 1 were 18 percent below the previous year. And now this is starting to show up in meat production. In Government-operated meat packing plants production in April fell by 22 percent in comparison to the same month last year.

Chairman PROXMIRE. I understand that they have for the first time in a long time actual rationing, that they have 1 meatless day a week, is that true?

When was the last time they had meatless days for food rationing?

Mr. DIAMOND. 1972.

WORK SLOWDOWNS

Chairman PROXMIRE. You mentioned in your prepared statement work slowdowns as a result of the food shortages, and also vandalism and general grumbling. Would you elaborate on this somewhat and discuss whether there have been any riots over food?

Mr. DIAMOND. These are rumors reported in the Western press. A Paris newspaper correspondent reported that riots were observed by Westerners in Kiev and Rostov. Kiev is the Ukranian capital and Rostov is a major industrial center in the North Caucasus. These were people who found a very low supply of basic staples as well as livestock products. They allegedly broke windows, or in the case of the free peasant market, ripped out stalls. We have no confirmation of this.

Chairman PROXMIRE. Have food prices gone up in the Soviet Union?

Mr. DIAMOND. Not in state stores.

Chairman PROXMIRE. In the black market there is a kind of inflation, but it is not official?

Mr. DIAMOND. It is not official.

EFFECTS ON DELIVERIES TO DEVELOPING NATIONS

Chairman PROXMIRE. Aside from the domestic effects of the crop failure, are they not also reducing the Soviet ability to aid the developing countries? Does this mean that the drop in deliveries to the developing nations in 1975 are likely to continue in 1976?

Mr. DIAMOND. Well, the drop in aid shipments of food in 1975 as compared to 1974 really reflects a one-time large delivery of grain to India in 1974. That went to zero in 1975, and yielded a drop in actual deliveries.

Chairman PROXMIRE. I have got one more question and then I will yield to Senators Percy and Kennedy.

Would you expect that the continuing ability to aid the developing countries economically would have any real effect on Soviet stature and influence in those countries?

Mr. BUSH. That is a tough one, Senator. I know we feel that momentarily at least they have gained in Africa regardless of what is happening in their aid, mainly because their backing the Cubans in Angola. And how one nets that out—Mr. Proctor, do you have anything on that?

Mr. PROCTOR. I think the premise based on poor performances in 1975 should not be projected too far into the future. They are still going to provide aid for selected countries, and probably significant amounts relative to the needs of some of the smaller countries.

Chairman PROXMIRE. Can they provide foods to those countries in the same degree?

Mr. PROCTOR. Not this year.

Chairman PROXMIRE. So the food delivery will decline in 1976?

Mr. PROCTOR. Well, they even reneged last year on their more-or-less standing requirement to supply the Eastern Europeans with about 4

to 5 million tons a year because they couldn't make it. And they let Eastern Europeans go out and fend for themselves in the open market.

Chairman PROXMIRE. Senator Percy.

TIME SPENT IN HEARINGS

Senator PERCY. Thank you very much, Mr. Chairman.

I first would like to thank the chairman for having this hearing, and having it in closed session. I think certainly the overall strength of our adversary and its economic underpinning is extremely important for us to take into account.

I would like to say, Mr. Chairman, that having sat through months of hearings on the Government Operations Committee on Intelligence Oversight, I was deeply impressed with Mr. Colby's statement that he had spent 60 percent of his time, in his 3 years as Director of the CIA in testifying before Congress, preparing for testimony, or work following the testimony. And I wonder what is your outlook on that, Mr. Bush?

First of all, I am always looking for ways to have the head of a Federal agency be able to run the agency and spend enough time doing that rather than just testifying. Does it look like you are going to be spending 60 percent of your time? What would you think would be a reasonable proportion of your time to spend here and still stay on top of the worldwide organization?

Mr. BUSH. So much of that depends, Senator Percy, on the Senate side, on the effectiveness of the new oversight committee. I have been in this job since February 1, and this is my 20th appearance on the Hill, not counting coming up and talking to individual Senators about specific problems. But my concept is that Congress should be a consumer of intelligence. Mr. Colby was also clear on this. More and more Congress is having its say in foreign affairs. And our Agency view is, the better informed the Congress is, the better informed the debate.

So I don't expect that the new oversight committee will or should reduce this kind of hearing, or the kind of hearing we gave over in the House the other day on Angola. But what I hope it will do is cut down on the duplication. I am not sure it will. But I hope it will cut down on duplicatory appearances. And I would say that in terms of total time—as I think of my time and think of the priorities facing me in this Agency, I hope that the figures will be substantially below 60 percent. But I couldn't at this point, sir, tell you exactly how much it should be.

Senator PERCY. I would just like to say for our own information, and for information to you, because I have not discussed the subject with you, though I have with very great length with Mr. Colby and others who are concerned about the personal time of the Director himself, that when you are requested to personally appear before committees where the Assistant Director or someone else can substitute, never hesitate to say, I am pressed for time, can my Assistant perform for me. A great deal of this is technical information anyway. And if you stayed on top of every single detail you wouldn't be running overall intelligence policy. But I am personally very pleased to have this chance to see you and to put a few questions to you.

I would like to ask, as a matter of procedure, Mr. Chairman—I was out of town Friday of last week, and did not realize until I arrived

from Chicago this morning that Mr. Bush was testifying. I have not had a chance to look over the details of his testimony, and a lot of it he has not given, of course, there are some 50 pages. Was the testimony available for study?

Chairman PROXMIRE. It was available Friday night, yes.

Senator PERCY. It was available Friday night. And was it made available to minority members and counsel as well as the majority?

Chairman PROXMIRE. Well, we had quite a problem on that. As you know, it is classified, it is secret testimony. And it was delivered Friday afternoon after the minority staff had left, and couldn't be taken home. So we did——

Senator PERCY. Was the minority staff advised that it was available for study? Because classification applies equally to the minority as well as majority. We do best with the time of our witnesses if we are prepared ahead of time. My absence in the city made it impossible for me to personally be prepared for this testimony. But I find that the minority staff did not get it until this morning.

Chairman PROXMIRE. That is right, they were not advised, because it did come in after they had gone home.

Senator PERCY. In the future, then, could I respectfully ask that the minority staff be treated exactly as the majority staff on any of these testimonies. Because they are available to come down over the weekend just as the majority staff are. Under what rules can we take this and study it ourselves the same way as any other classified material, and treat it as secret then, and have security for it?

Chairman PROXMIRE. That is my understanding.

Senator PERCY. I would like to study this full text, its 58 pages. And because of another hearing this morning that I must go to, I can't stay. It is available to us to take, though, as members?

Chairman PROXMIRE. As you say, it has to be safeguarded, of course, like other classified information.

Senator PERCY. I will treat it as I do secret information that I have in the Foreign Relations Committee.

Thank you very much indeed.

INFLATION IN THE PEOPLE'S REPUBLIC OF CHINA AND THE SOVIET UNION IN A CONTROLLED ECONOMY

I would like to ask about the level of inflation in both the People's Republic of China and the Soviet Union. How are they running? Is it possible for us to get a comparable measure to our inflation rates? And how much of a problem is inflation in a controlled economy such as that?

Mr. BUSH. I would like to refer that question, if I could, Senator. I must say, from being in China, that they always kept telling us how they were inflation free, which was not true. The yuan would change vis-a-vis the dollar, and some of that I am sure related to relative changes in inflation.

Can you answer that, Mr. Proctor?

Mr. PROCTOR. Just in general. Obviously neither of these two countries are immune to inflation, especially with regard to the imports they have from the world ridden with inflation, especially for basic commodities. To some extent, these price increases can be modified in terms of official prices, and trying to hold down the inflation internally

while the external prices in effect grow. What appears obviously is a shortage. Most of the prices in the U.S.S.R. for consumers are fixed, and what you get is the growing unofficial market and the peasant market. And those prices are not controlled. But the official prices are pretty much in control, with some exceptions here and there.

Do you want to add anything?

Mr. DIAMOND. This has been looked into rather carefully over the last several years. The best estimate, Senator, is 2 to 3 percent a year in the Soviet Union. But it is a highly conjectural type of number.

Senator PERCY. If there is any further information on that aspect of their economy that can be furnished for the record, I would be most interested in reading it.

ABSENCE OF HUNGER IN CHINA

In your prepared statement you indicate that agriculture has been a problem area for the Chinese, but they have been devoting an increasing share of resources to agriculture, and have been cutting down the growth of the population. In the guided tour that I had last year into six different regions of the People's Republic of China we were quite free to look around, once we got to an area—and it can be an area of 10 to 20 million people—and I never could find any evidence of hunger or malnutrition in that economy. I have reports from Tibet and refugees that in Tibet, for instance, and other territories that there is hunger, there is a great deal of malnutrition, and a great shortage of agricultural products. But what is the situation so far as the malnutrition and hunger in China are concerned?

Mr. BUSH. What you have said, sir, comes as a surprise to me. Maybe some of our experts can confirm it.

Is anyone prepared to do that?

[No response.]

I didn't travel to some of the autonomous regions, but I did travel a lot in China. We were free to move around, although you never get far off the beaten track. But certainly their own theses is that there is a basic level of nutrition for the entire population.

Can anyone here help the Senator with that, as to whether there is malnutrition in places in China?

Mr. FIELD. No; I have no information on it.

Senator PERCY. In other words, so far as we know, the claim that they have made that they are meeting the food problems of the country, and our own observations along that line were accurate?

Mr. BUSH. Yes.

Senator PERCY. And I think they have been absolutely remarkable.

U.S. EXPORT CONTROL POLICIES

I would appreciate your comments on the export license policy. I served with Senator Proxmire 10 years ago when we began work on this problem of export controls, and it seemed to many of us at the time in the Banking Committee that we were far too restrictive in our export controls, that we were restricting equipment being sold by American manufacturers when the same equipment was readily available for Western Europe, Great Britain, and other countries. But the charge was always made, we were building up the economy of our

enemy to only do us under in the ultimate test. What is your own feeling? Do you have any feeling as to whether or not our export control policies are too loose, too lenient now? Have they been eased up? And have they had that disastrous effect that the hard core and the anti-Chinese, on having any contact with them, charged that we were guilty of?

Mr. BUSH. Senator, I don't like to deliberately dodge the question, but I vowed when I came into this job that I would try to stay out of policy questions as much as possible. And you are asking, I guess, an intelligence question. But I have got to be careful I don't get into a policy response. When I was in China there were certain things that they wanted that they were denied, certain kinds of advanced technology. To my knowledge, they did not ever ask for—though I read in the newspapers to the contrary—military support of any kind. My own judgment is that there is a wide range of goods that are not on these COCOM lists that the Chinese could use to further their productivity, and do something about their trade deficits.

I am thinking particularly in the petroleum field, where they are not restricted by controls, and they don't do it. They are still very reluctant to give us too much business here in the United States. And my own judgment is that, these controls are not the principal impediment to trade with China. When you get into a control situation the Chinese themselves won't ever sign an end use statement. I am not too familiar with the bureaucratic procedures that must be going on there, although I am sure some of our people are. But the Chinese have been very reluctant to actually say what the end use of the product is.

My own judgment, based without statistics—and I will be glad to have the experts respond—is that these controls are not an impeding factor of any consequence on China-United States trade today. Much more of an impeding factor is something like the claims and assets problem. The most impeding factor, however, is the philosophical commitment of China to be self-reliant, not to appear to become dependent on U.S. technology, in something as unclassified as the oilfields, where we could greatly enhance their ability to produce oil, and solve their deficit problems in a hurry. They are just not willing to talk yet in those details.

Senator PERCY. Mr. Chairman, I would ask unanimous consent that I be permitted to ask questions verbally to be answered for the record.

The first is with respect to the economic factors involved in the power struggle in China today. Is there a basic economic policy that Teng has for which he has been rejected?

And second, the interchange of the economies in Eastern European countries now. Are they still on a barter arrangement, are they still forced to buy and settle with each other, or is that easing up? And what is the degree of dependence Eastern European countries are assuming now with respect to the West in their desire to deal with this?

And lastly, what internal effect consumerism has had on the Soviet people. The difference between 10 years and today was just dramatic in fuel production, and also, in cars being sold civilians. On the Sunday afternoon that our delegation arrived the highway was loaded with cars and families getting out. What has it done to their economy? Is it going to force them to devote more and more toward consumerism? And what effect will that have on the ability of an economy that

is not growing dramatically to continue to put the resources that they are now putting into defense?

If those questions are not short and clear, I would be happy to refine them. But I think you know the area that I am concerned with.

Thank you and your colleagues for being here.

Mr. BUSH. I would be glad to submit the answers for the record.

[The following answers were subsequently supplied for the record:]

WRITTEN RESPONSE OF HON. GEORGE BUSH TO VERBAL QUESTIONS POSED BY SENATOR PERCY

Question. Is there a basic economic policy that Teng has for which he has been rejected?

Answer. In their efforts to oust Teng Hsiao-ping, China's radicals seized upon economic as well as political issues. The evidence, however, suggests that economic issues were not basic to Teng's ouster. The radicals alleged—without specifics—that sometime last year Teng Hsiao-ping circulated a document calling for readjustments in policies affecting industry and agriculture, transport and communications, trade and finance, science and technology, national defense, the party, and literature and art. Newspaper accounts implied that Teng's program involved a devious twisting of the intent of a long-term modernization program announced by the late Premier Chou En-lai in January 1975. Claiming that they, too, favored modernization, the radicals attacked Teng for excessive emphasis on (a) material incentives, (b) technical, managerial, and military professionalism, and (c) the acquisition of foreign equipment and technology. Despite this condemnation of Teng's program, Chinese leaders have emphasized the continuity of economic policies in several discussions with foreign visitors. The situation in China is still fluid and will remain so for some time. When the current political turmoil subsides, some economic policies undoubtedly will be altered.

Question. What effect will growing consumer demands in the USSR (e.g. for cars, fuel) have on an economy that has ceased growing dramatically but is still devoting considerable resources to defense?

Answer. The new CIA estimates of Soviet defense spending—50 to 55 billion rubles in 1975—have altered significantly our perceptions of the economic costs of the Soviet defense effort. Analysis of the complex issues of economic burden and resource allocation is still in its preliminary stage. However, it is clear that the Soviets are far more willing than we had thought to forego growth in the civilian sector (and consumer satisfaction) in favor of expanding military capabilities.

We have very little evidence on how Soviet policymakers assess the burden of defense spending. Nor do we know how the leadership's views on defense priorities relate to the slower economic growth planned for the current five year plan. On the rare occasions that Politburo members have addressed these subjects, they have noted that, although defense spending is a burden and the resources could be better used elsewhere, "defense requirements" will be met as long as necessary.

There are no indications that the leadership has seriously considered diverting resources from military to civilian use in response to consumer demands. Indeed, the Soviet people have traditionally accepted programs to build the military and boost industrial production as justifying a slow growth in living standards. It is believed that this basic attitude has not been eroded by recent developments, such as the work slowdowns and marketplace vandalism in protest of the current food shortages. There is no information that the Soviet consumer links this particular situation to the large share of national resources earmarked to the military.

Question. Is there any further information on inflation in the USSR that you can provide for the record?

Answer. Soviet spokesmen have long held that inflation cannot develop in their centrally planned economy. They boast that for many years retail prices have been unchanged, with the exception of prices for luxury items like caviar, smoked fish and gold jewelry.

The reality is somewhat different, and is obscured by official Soviet statistics. Even some Soviets have unofficially acknowledged that their wholesale and retail price indexes do not accurately reflect price movements. As one promi-

nent Soviet economist at a 1974 conference observes, "up to now, our economists have not built good price indexes."

Some Soviet economists have privately estimated the annual rise in the cost of living to be 3 to 4 percent—roughly equivalent to the average annual growth in money wages. Various Western observers have placed the recent rise in the cost of living at between 2 to 5 percent annually.

Hidden increases often take the form of eliminating the less expensive product lines and replacing them with more expensive products of no higher quality. Sales of meat and consumer durables (especially automobiles) have been particularly susceptible to this form of "creeping inflation."

Inflation Soviet-style differs markedly in its origins, nature and consequences from inflation in the Western world.

Internal Soviet inflation stems from the efforts of industrial and household consumers to get goods in a situation of chronic shortages and bureaucratically set prices and wages;

"Creeping" Soviet inflation results in grumbles, but not in the acceleration of price increases or in wholesale flights from the ruble;

These inflationary pressures occur in the USSR because wage increases typically outstrip the availability of consumer goods. The extra rubles have been absorbed partly by growing savings deposits and partly by hidden and overt increases in prices;

The Soviets maintain enough control on wages, prices, credit, production, and distribution to avoid Western-style inflation.

Question. What internal effect has consumerism had on the Soviet people? What has it done to their economy? Is it going to force them to devote more and more toward consumerism?

Answer. Consumerism is probably too strong a term to apply to developments in the Soviet economy. Stalin's heirs realized in the mid-1950's that a modern industrialized country could not rely solely on coercion to motivate workers. The stress on material incentives and rising levels of living since then, however, has been accomplished without significant loss of political control or diversion of resources from defense and investment. For their part, consumers probably are clearly aware of the progress they have made since World War II and while they undoubtedly wish life was better, they have generally not lost sight of the penalties dissent entails. Even after a difficult year such as 1975; there is no evidence that future resources will be insufficient to provide wherewithal for the guns and butter policy.

EAST EUROPEAN ECONOMIC RELATIONS

Trade with the USSR, still conducted on a barter basis, has been to the advantage of the East Europeans, especially in recent years. The major negative factor has been the gearing of East European production since the 1950's to the Soviet market, with the resulting production of heavy and often obsolete machinery that can be sold in the West only at deep discount. On the other hand, the East Europeans buy the bulk of their fuel and raw material requirements from the USSR—and, in recent years, often at bargain prices. For example, the East Europeans are now paying only $7.25 a barrel for Soviet crude oil—about a third below the world price. Moreover, the East Europeans benefit from their large shipments to the USSR of overvalued machinery, which is often priced at the level of superior Western models. In an attempt to offset its disadvantage, the USSR raised prices in 1975 and has pressured the East Europeans to (a) buy more Soviet machinery, (b) buy more oil in the West, (c) invest in Soviet raw material projects, and (d) accept a new CEMA pricing formula with annual price changes based on a moving five year average of world prices. Despite adjustments steming from these demands, the USSR is still at a disadvantage in trade with Eastern Europe.

The share of East European trade with the West has risen dramatically in the last decade as the result of massive purchases of sophisticated Western machinery for modernization, rapid price increases in trade with the West, and purchases of industrial materials, oil and grain which the USSR was unable or unwilling to supply.

Chairman PROXMIRE. Senator Kennedy.

Senator KENNEDY. Thank you, Mr. Chairman.

I want to say how much I appreciate the fact that these hearings were called. And I also want to welcome Mr. Bush before the com-

mittee. And I regretfully didn't have a chance to go through the testimony.

Soviet Agricultural Problems and Military Policy

Could you tell me, Mr. Bush, given the decline in the agricultural production and the general kind of problems that they have had in terms of their economy, what implications has this in terms of military policy, in terms of the internal politics in the Soviet Union? Has it had an implication, or has it had no implication? How do you evaluate that?

Mr. Bush. We have seen no change in their determination to keep up the military strength. As our recent paper on costing indicated, they perhaps are less efficient, given our new information, than we have heretofore given them credit for. But the agricultural decline has not appeared to put real pressures on the military sector.

Now, if I could, sir, I will ask our experts to confirm that.

Is that essentially right?

Mr. Diamond. That is right.

But you asked, over time does this have an implication. We believe back in 1970 the total outlays for military and space programs were roughly the same share of GNP as now. And yet we saw investment during this 5-year period flowing into the farms at average annual rate of increase of 9½ percent a year, nearly double the average for the rest of the country.

So, during the past 5 years they have maintained the same relatively large share of GNP allocated to defense and, at the same time, rapidly expanded the flow of new fixed investment to farms. All of this was accomplished at the expense of other sectors of the economy. As a result of these trends, it is not at all clear that they felt the burden was so high in the defense sector that they felt compelled to reduce that burden in order to support an even greater effort in agriculture.

Senator, they have poured a lot of resources into agriculture. In this country we are investing $8 to $9 billion a year. And they are investing an equivalent of $45 to $50 billion a year in the agricultural sector; 20 percent of total investment flows into the sector. In the United States it is 5 percent. So it is not a lack of effort. They must be sorely disappointed by the response in production.

Senator Kennedy. That was exactly the point I was interested in, whether you have drawn any kinds of conclusions or any kinds of either short- or long-term trend, or whether the decisions are kind of made in separate compartments, compartmentalized, we are going to do the military in spite of what is happening to the agricultural, and whether there is a balance in tradeoff. You haven't been able to draw any conclusions that because there is any kind of serious agricultural failure with its implications in terms of the total Soviet economy, that this has much of a rippling effect in terms of decisions by Soviet leaders in terms of allocating resources in the defense area?

Mr. Diamond. Two points. We have nearly doubled our estimate on the size of the defense burden, from 6 to 8 percent to 11 to 13 percent of GNP. As a result, we are looking very closely into how the Soviets perceive this burden, and whether they are looking for opportunities, alternative arrangements to reduce it. That is under study right now.

The second part of this is that while Soviet expenditures on agriculture are extremely large, they will look forward in the last half of this decade with increasing trepidation as to what will happen if they can't at least stabilize or reduce the sharp cyclical swings in farm output. And toward that end, of course, they are pouring more money into land reclamation and other things.

But it is not clear at all that we have a clear perception of their concerns, nor what choices they will make in the next couple of years. But we believe the annual increases in total stock of plant and equipment will slow during the balance of the decade. This will make the burden problem more difficult.

Mr. PROCTOR. If I may add to that, sir, the military programs seem to have a dynamics of their own. I think it is putting it a little too sharply to say that the general economic decisions and the military decisions with regard to exports are compartmentalized. But we cannot identify any military programs that the Soviets have cut back on specifically because of agriculture, or any other field. There must be some trade off in resource allocation. But it is clear that the military have enough priority to continue the programs once they are underway and the decisions are made.

Mr. BUSH. Senator, one point I would make in connection with the question that you asked. China made a commitment in 1971 to curtail or to cut way back on the military, and then increased their agricultural fertilizer plants and their whole commitment to a strong agriculture. But we hadn't seen that in the U.S.S.R.

EFFECTIVENESS OF SOVIET INVESTMENT IN AGRICULTURE

Senator KENNEDY. Given the kind of decisions that have been made within the Soviet Union as to investing in the agricultural sector, what is your evaluation of the effectiveness of such investment? Is it liable to pay off? Are they doing the kind of things that our agricultural people would feel, given the kind of game plan that—if we had that kind of a situation, with the kind of deficiencies and inadequacies, is that the kind of direction we would go in? What is your evaluation of the type of investment? And then could you tell me what you think the effect is going to be over the period of the next 3 to 5 years in that sector?

Mr. DIAMOND. Well, they have a three-pronged attack in agriculture, as has been articulated in the last 10 years over and over again——

Senator KENNEDY. I am sure that is interesting. But how do you evaluate it, is what I am asking.

Mr. DIAMOND. Well, it is certainly going in the right direction. They are investing in the land in two ways; drainage of areas of above adequate precipitation in European Russia, and irrigating dry areas in other regions. The latter is a must in a country where 3 out of 4 acres of grain crops are grown in an area comparable to the northern Great Plains and the Canadian Prairie Provinces, in other words, in areas of 10 to 20 inches of annual precipitation.

Second, they are investing very heavily in soil additives such as fertilizer and lime, and crop stabilizers, such as pesticide and insecticides. So they are putting their rubles in the right place.

Senator KENNEDY. Is this in rather notable contrast, say, to what they were doing 3 to 5 years ago?

Mr. DIAMOND. No, it is in contrast to what they were doing 10 years ago. They have been doing precisely this in the last 10 years. There is some debate among themselves as to the wisdom of these investment policies, not necessarily at the highest level, but at the technical level. It turns out that these land reclamation schemes are extremely expensive under their conditions, under their relative efficiency in irrigating and draining land. Most Soviet experts argue that it is worth it, because sooner or later it will pay off. Slowly it will generate needed stability in output as well as boost production. But they have been at it for a decade, Senator. They have now about as much land irrigated as we have in this country. In addition to the problem of lack of adequate precipitation in major grain-growing areas, the Soviets have a short growing season. In other words, you are dealing with an economy where the agricultural setting is more comparable to Canada than to the United States.

There is nothing like the U.S. Corn Belt in the Soviet Union.

So under those conditions it is going to be a difficult task of trying to stabilize, while at the same time increase yields per acre. It is a very high-cost operation. And not only in increasing crop production but also in livestock output. It is going to be a tough go.

Senator KENNEDY. You are impressed with what they are doing and the types of programs that they have developed, but your judgment about the payoff of these particular proposals in terms of a 3-to-5 or even a 10-year period is that it is going to be touch and go?

Mr. DIAMOND. I would estimate over the next 5 years they will be importing anywhere between 10 to 20 million tons of grain a year. They will not be self-sufficient.

POLITICAL IMPLICATIONS OF SOVIET AGRICULTURAL FAILURE

Senator KENNEDY. Just one final question. What political implications, if any, do you draw from the agricultural failure? Is that a dynamic political issue or question in terms of the whole Soviet Union politics, will heads fall because of this, or is it something that they have known exists over a period of time, and someone like Brezhnev can ride it through without too much political fallout? Could I just get a brief assessment on that?

Mr. DIAMOND. There are two aspects to the problem: One is the short term of this year; the other is a longer time frame. The short-term problem is great. Before sizable amounts of the next crop are available in June and July, before the labor force in the large industrial cities of European Russia see basic staples such as new cabbage and potatoes, there may be considerable civil discontent. This obviously has short-run political implications. We judge, as Mr. Bush indicated in his opening statement, that they would be able to cope with that. Now, cope in the sense of avoiding the change in political leadership that went on in 1970 in Poland, that is, Brezhnev in the short run will not be forced to step down because of civil discontent. At the same time it obviously has long-term implications for the stability of the leadership. But in the short term they probably can weather through this year.

An indicator that they feel confident is that so far they have avoided going out on the world meat market, where there are a million tons of

meat easily available for them to import over the next 6 months. So far they have just purchased 35,000 tons of New Zealand mutton and beef, that is all. So they must feel that in the short term they can handle it. The longer term problem will always be on the agenda. You can only see the tip of the iceberg in these discussions—but there has been a reoccurring history of division in the Politburo among the leadership as to how to handle agriculture. But as Mr. Bush indicated, the need for large allocations of resources to the farm sector doesn't seem to impinge upon the military and space programs.

Mr. BUSH. Their agricultural leader did bite the dust as a result of this. But Brezhnev and the other top leadership appear to be as strong as ever.

Mr. DIAMOND. The agricultural leader that has bitten the dust is the very one that has argued vociferously for maintaining a high level of support for the agricultural sector.

So whatever implications that has we don't know. Dimitri Polyansky is the one who in 1967 made an unusual public statement saying that the agricultural sector must have more resources.

Chairman PROXMIRE. Congressman Brown.

Representative BROWN of Michigan. Thank you, Mr. Chairman.

I obviously have not had a chance to read your prepared statement, Mr. Bush.

UNDERLYING PROBLEMS OF SOVIET AGRICULTURE

It seems to me the information we get most of the time is on short time frame basis, a good crop, a bad crop, a good year and a bad year, et cetera. Still isn't there the underlying problem of the long time frame of being able to satisfy the Soviet needs as far as agriculture is concerned with their own agriculture?

Mr. PROCTOR. That is correct.

Representative BROWN of Michigan. And it seems that if they understand that, then it normally would be incumbent upon them to decide to resolve this on a short-term basis all the time, or to make some long-term arrangements. Does any decision of that nature seem to be forthcoming?

Mr. PROCTOR. The fundamental problem is weather and climate.

Representative BROWN of Michigan. But the weather and climate—the climate is something that is there forever.

Mr. PROCTOR. That is correct.

Representative BROWN of Michigan. And the weather is something that is annual.

Mr. PROCTOR. That is correct.

Representative BROWN of Michigan. So you don't think you can talk of these two things in the same context?

Mr. PROCTOR. No; but what I am saying is that the weather is basically the reason, partly it is location, for the erratic kind of performance that they have in agriculture. The problem of agriculture is perennial. In attempting to solve the agricultural problem the Soviets have done a great deal of experimenting—proposing radical ideas that have not been successful, always searching for new ways of solving the problem. All of these have been attractive to the Soviets for solving the fundamental problem. But the fundamental problem with them, and what they are trying to do with investment, is to ameliorate some

of the variations that do come because of climate primarily and weather periodically.

This chart on the slide shows the wide variation in Soviet output along a long upward trend. China, which does not have the same climate and weather problems, seems to have far less fluctuation, about one-tenth of the fluctuation that the Soviets have on a percentage basis.

Representative BROWN of Michigan. Do you attribute all that to weather?

Mr. PROCTOR. These wide variations? Yes; around the trend line. When you think of last year, when they were aiming at about 220 million tons, and they only produced 140, it wasn't so much because of the lack of investment or equipment, although that contributed here and there. But it was just bad luck in weather in many places at the same time.

Chairman PROXMIRE. Will the Congressman yield for a straight factual question?

Representative BROWN of Michigan. Sure.

UNITED STATES, SOVIET, AND CHINESE GRAIN PRODUCTION

Chairman PROXMIRE. I would like to ask two question. Keep that chart on for 1 minute.

It shows a consistent increase or a fairly consistent increase, by China and erratic performance, you say, for the U.S.S.R., but an increase by China. It shows China producing about twice as much as the Soviet Union in grain. How would we produce as compared with that, how many million tons? Do you have any idea where we would be?

Mr. PROCTOR. This is both food and feed grain.

Mr. DIAMOND. We are producing about 20 percent more grain.

Chairman PROXMIRE. Roughly the one-fifth more of grain as what?

Mr. DIAMOND. As the Soviet Union.

Chairman PROXMIRE. So we produce about half as much as China? Of course, they have, as you said, almost a billion people. I had no idea that China produced that much. They are the big producer in the world. I had no idea.

Mr. PROCTOR. They have a bigger population.

Chairman PROXMIRE. Of course, that is it.

Mr. DIAMOND. Let me amend that for the record, Senator. In food grains, in a bad year like 1975, we produced 20 percent less than the Soviet Union. In 1975 we produced nearly three times as much feed grains. But normally in a reasonably normal year like 1974 they produce a total of these two types of grains of 170 million tons, and we produce a total of 200 million tons.

Chairman PROXMIRE. Thank you.

Congressman Brown.

Representative BROWN of Michigan. Is there a substantial difference in the way the two types of grains are produced, food grains as opposed to the feed grains?

Mr. DIAMOND. Yes; there is a major difference. We emphasize feed grains, and they emphasize food grains. For example, they only produce between 10 and 15 million tons of corn a year. And we will produce say, 140–150 million tons.

Representative BROWN of Michigan. Is there a way out for the Soviets with respect to agricultural production? Who is helping them with their technology in agriculture primarily?

Mr. DIAMOND. Well, they have a campaign in this sector, just like they did in other sectors, to get access to Western technology. And they have made a formidable effort in the last 5 years working out agreements with U.S. companies, not only for improved seed varieties, but all kinds of machinery, and new kinds of approaches to crop cultivation. In other words, there is a whole menu of things. Because of the basic superiority of the United States in agrotechnology for the northern Temperate Zone and continental climates which are in both North America and the Soviet Union, they look principally toward the United States for help. Canada, too, is a source of livestock for breeding purposes and so they have spent quite a bit of money getting access to this technology. It just isn't working properly, given their institutional arrangement in the socialized sector. Farms in the socialized sector produce 70 percent of the agricultural production in the country. It is just not an efficient institutional arrangement for putting together capital and labor and land. That is our analysis.

Representative BROWN of Michigan. But isn't climate the basic problem?

Mr. DIAMOND. Well, climate is certainly a constraining problem.

Representative BROWN of Michigan. Therefore isn't it more essential than anyplace else that they develop new species, new varieties, and new animals, even, as we have done in some of the areas?

Mr. DIAMOND. They work very hard at that. But with very limited success. For example, new varieties of two basic crops, winter wheat and sunflowers, which is their basic oil seed as opposed to soybeans in this country, were introduced in the 1950's and permitted phenomenal success in increasing yields of those two crops. Since then, however, in everything else they have fallen flat on their faces. Practically all of their crop varieties have become obsolete and disease prone, and are limiting yields that could be expected from more fertilizer and other inputs. They have not been able to do anything in spring wheat, anything of note. And in corn they have a climate constraint because of the northern latitudes they operate in and the short growing season. Consequently, their yield in most grains is between 50 percent and 60 percent—well, 50 percent for certain types, up to about two-thirds, of U.S. yields. In corn, it is a greater difference. We average over 90 bushels of corn an acre in this country, and they average about 40 bushels an acre. So that is a problem that they are up against.

And they have, as the Canadians, major climate problems to cope with.

In addition, their institutional arrangement in livestock leads to outrageous costs in producing a ton of carcass weight meat as opposed to anybody else involved. The price ratio for grain and meat in the United States is something like 8 to 1, that is, $8 of livestock product, in weight terms is equivalent to $1 of grain Under Soviet conditions it is more like 15 rubles to 1 ruble. It seems to be twice as expensive for them to produce an equivalent amount of meat relative to grain as it is in this country.

Representative BROWN of Michigan. One final question. Let me go back and conclude where I started. Are they still going to continue to deal on a day-to-day basis and buy what they need when they need it, and continue their efforts to become more self-sufficient, or recognize that in the long term they are going to have this problem, and that they would be better off to make some kind of permanent or semi-permanent arrangement for the providing of that which they cannot provide for themselves?

Mr. DIAMOND. Well, there is a basic long-term goal of self-sufficiency. They feel very uneasy about relying in any given year on actually importing enough calories. They have to be in position to import food to sustain body and soul and to keep the population from too much open discontent. Once they are in that kind of position politically they find it unacceptable not to try to achieve self-sufficiency. So I would vote in favor of the first proposition, that they will try very hard toward self-sufficiency. I predict in the period of 1976–80 that they are not going to be able to do this, and they will import anywhere between 10 and 20 million tons of grain, even with average weather. Now, in bad years, they will import even more. We estimate that their port of capacity at the present time permits them to import 36 million tons a year. That is sort of an upper limit.

During this year up to October 1, they will have imported about 28 million tons of grain.

This is the sort of magnitude that they had to import in the years like 1972 and 1975. But surely they will make additional efforts to try to stabilize production, and try to rebuild reserves, both strategic reserves and buffer stocks for handling downturns in the cycle and try at the same time to make agriculture more effective, more efficient and less costly. It must be frustrating to them. But I have yet to find any leader, at least in public, who would suggest, "Let's go the Polish route, let's revert back to private peasantry operations, because our collective and state farms are not up to efficiently making use of all these inputs and stabilizing output and reducing costs." So it is an obvious item on the menu of constant deliberation among the leadership, I am sure. I am not quite sure how they are going to resolve it, but I am sure they are trying to do what your proposition one would argue in favor of.

Mr. PROCTOR. I would like to point out something about the composition of the diets of the two countries. You will note the very dramatic difference between the consumption of grain products in the United States and the U.S.S.R. We consume per capita about half the amount of grain products the Soviets do. They are much more dependent on grain and potatoes. The quality of diet obviously depends in part on the amount of protein in the form of beef, fish, and things of that sort. And we consume about two-thirds more than they do.

Chairman PROXMIRE. First, I hope we can make the questions and responses as concise as possible. We have spent a lot of time on food. It is very fundamental and important. And we have a lot of other questions, too.

Food Production and Military Strength

We have been reading recently of the possibility that the climatic conditions worldwide may be changing for the worse, and we may be in for a long period of food shortages. That may or may not be true. If that occurs, is it possible that the nations' ability to produce food for themselves for export may become as important as the stockpile of weapons as an indicator of the national security and national strength?

Mr. Bush. One of our analysts conducted a study of this problem. Although we certainly have confidence in the analyst, his study did not represent an official CIA view. But the story went out that CIA was projecting worldwide famine and disaster. And this is not the official view of the Agency.

But could you respond to the question, Mr. Proctor?

Mr. Proctor. It has been said during discussions about climate that if you put a dozen climatologists together you would have at least 15 to 18 different views of what the future climate is going to be. Either it is going to be colder or warmer or stay about the same, and there would be less or more output of foods as a result.

Chairman Proxmire. Let's assume that we can't predict what is going to happen to the climate, let's leave that aside. Perhaps my preliminary question was intended to overshadow what I am really interested in. What I am interested in is, if we did have a situation in which for one reason or another we have inadequate food in Russia and perhaps in China. Is it possible then that the nation that has surplus of food, and it has this strength, that this may become an important, a much more important military element than it has been in the past? It seems logical that it should be to me, unless there is some reason that——

Mr. Proctor. I wouldn't put it in terms of military per se, but it would certainly influence their power, certainly. The problem of the adequacy of food really depends on the growth rates of both the population and food.

Chairman Proxmire. There is an old saying, you know, that any army marches on its stomach. And it makes some sense.

Mr. Proctor. Less and less so now.

Chairman Proxmire. Well, maybe.

Mr. Proctor. There is also no unanimity on whether the rate of growth of the population will exceed or be slower than the rate of growth of the production of food. The projections we have made internally would tend to suggest that there will be a slowing down in the relative rates, and there will be a greater bind. But we are dealing with a very small difference in terms of growth in population and the growth in food. And there is always the option of reducing the quality of the food available.

Chairman Proxmire. That is being done right now in the Soviet Union with their meatless days, and so forth.

Mr. Proctor. But I meant quality in a different sense, quality in whether to get one's calories and livelihood through consumption of grain or consumption of meat products.

Chairman Proxmire. Which is the reason, I presume, that China—which produces a little more than Russia does, not much more, but

it has three times as many people—is not suffering so much, because they apparently do consume, not meat, but cereal?

Mr. PROCTOR. Grain, mainly rice.

Chairman PROXMIRE. Let me ask, you have provided us with a fascinating research aid here, the Handbook of Economic Statistics, CIA, dated 1975. And the table on page 123 gives the production of total grain from 1965 to 1974. Would you bring that up to date and give us the 1974 figures so that we have it for each of these countries—the 1975 figures for each of these countries? Not right now, but later?

Mr. PROCTOR. Yes; the schedule for that is about the end of July.

Chairman PROXMIRE. When you can—we would appreciate getting that.

Mr. PROCTOR. As soon as it is revised we will send you a copy.

Chairman PROXMIRE. In a period of prolonged decline in the food production, in a period where the Soviet Union continued to be unable to export in significant quantities, wouldn't that effect the world power situation? Is it not possible that the power would shift to the food-exporting countries in a sense, at least to some extent it would have that tendency?

Mr. PROCTOR. It might have that tendency. But it depends on the ability, I guess, and the will of the exporting nations, to exercise the power that is inherent.

Chairman PROXMIRE. Would you give us your judgment on that, Mr. Bush?

Mr. BUSH. I would concur that it could affect it, there is no question about it. The first question you asked is the one I have been thinking about. How much effect does this have on military power? It depends on how desperate they get and what they do. But I think it could have some effect.

UNITED STATES AND SOVIET MILITARY SPENDING: THE NEED FOR RUBLE COMPARISONS

Chairman PROXMIRE. I want to congratulate the CIA for making more information and analyses on the Soviet defense available to Congress. And incidentally, we have found on the basis of hindsight that you have done an excellent job, better than the Defense Department, for obvious reasons, you don't have an axe to grind, you have more objectivity. This year you have issued an unclassified report on the Soviet and United States spending in dollars and the Soviet spending in rubles for defense. But there is still one outstanding gap in the comparison of Soviet and United States spending. And that is the absence of comparison of Soviet and United States defense spending in rubles. Now, we went over this last year, and frankly, I am somewhat disappointed at the selected rubles comparison that I was promised were not provided.

I am also disappointed that the overall comparison was not completed for this hearing. Why was that?

Mr. PROCTOR. As was pointed out in our ruble paper that you referred to, we have reconstituted our estimates of the prices of Soviet products in rubles, and that was the highest priority. We could not have done an estimate of the United States in rubles without these ruble prices. And we put out our ruble estimate on the U.S.S.R. as soon as we could,

which was last week. And with this in hand we will be in a better position to do it.

I must add one caveat, and that is, the scarcity of resources we have devoted to this problem. This has been another basic reason for not being able to do the costing of the United States in rubles.

Chairman PROXMIRE. When will you have the ruble comparison?

Mr. PROCTOR. I haven't the slightest idea, sir. It depends on the availability of resources to us for that.

Chairman PROXMIRE. Can't you give us some notion of when you could do it? That keeps us further from it than we were last time when we asked a question. And then they indicated that we would have it this year.

Mr. PROCTOR. Perhaps. We took a very close look at it in terms of about half a dozen or dozen sectors, which doesn't get the full range. Our dollar paper came out with a relationship in dollars with the Soviets being about 42 percent higher. In redoing it in the limited number of sectors in terms of rubles, we concluded the Soviets are about 29 percent above the United States.

Chairman PROXMIRE. Of course projecting that would depend greatly on the particular sectors you chose, because some were much higher.

Mr. PROCTOR. It really depends on the number of sectors into which you divide the total expenditures.

Chairman PROXMIRE. On the basis of that would you be pretty confident in saying that there wouldn't be much difference, that it would show the Soviet Union spending more, is that correct?

Mr. PROCTOR. Yes.

Chairman PROXMIRE. And in the second place would it show that they were running about the same, say 29 as opposed to 42 percent?

ESTIMATING RUBLE COSTS OF ADVANCED U.S. TECHNOLOGY

Mr. PROCTOR. The original number was 42 percent versus 29. My judgment is that the Soviets, either in dollars or rubles, are higher than the United States. That is clear. How much higher will depend on how we calculate, and the fineness with which we calculate the U.S. program in rubles. The finer we calculate the more difference there is likely to be. But I have no doubt—and this is my judgment—that in either currency the Soviet figures are higher than the United States. There is a fundamental problem in trying to price every single weapons system, let's say, of the United States in rubles. In many of these the Soviets do not have the technology to produce the very advanced systems. Theoretically the price would be infinite, and we would have to leave some of those weapons out of our calculation, because it wouldn't make any sense.

Chairman PROXMIRE. I don't understand how it would be infinite. It seems to me that you could come up with some hypothetical estimate that would allow for that.

Mr. PROCTOR. We would have to handle those kinds of weapons systems that the Soviets do not have the technology to produce separately, and make some adjustment for it.

Chairman PROXMIRE. Then what happens to your judgment that they are spending more if the price is infinite? That seems to me like more effective spending.

Mr. PROCTOR. You asked me for my judgment. Without going into the details of the gross way we priced the U.S. program in rubles, the technology aspect is overshadowed by a lot of other things.

Chairman PROXMIRE. Let me ask Mr. Bush, the staff was informed, they tell me, that about 2 months ago you would have this comparison for us at this hearing. I understand that you couldn't do that. And that is certainly understandable. But can you give us a little better understanding of when we might be able to get it?

Mr. BUSH. No, I would have to rely on Mr. Proctor's organization. You were advised it would be here for this hearing?

Chairman PROXMIRE. That was our understanding, yes.

Mr. BURTON. What we had here for this hearing was the 29 percent figure Mr. Proctor mentioned.

Mr. PROCTOR. Forty-two versus 29 percent—dollar versus ruble comparisons.

Mr. BURTON. Yes, about 10 points difference.

Mr. PROCTOR. This is very rough.

Chairman PROXMIRE. When will you be able to get it to us? Do you have any notion, sir?

Mr. PROCTOR. We can give you the results of this rather gross comparison shortly.

Chairman PROXMIRE. Do that. And then keep us posted on when you think you can give us the ruble comparison. We would like to have it. I think it is in the interest of everyone to have as much of this information as we can get. I realize it is a burden on your organization, and it is not easy to do, it takes manpower.

Representative BROWN of Michigan. Will the gentleman yield?

Chairman PROXMIRE. Yes, indeed.

Representative BROWN of Michigan. A year or so back, the Minister of Commerce, or whatever his title is, appeared before one of our committees on the House side, in a very informal session. On trade transactions, it was basically his testimony to us that the ruble has whatever value they want to give it for that transaction.

Mr. PROCTOR. That is correct.

Representative BROWN of Michigan. So it seems to me it would be awfully difficult to do that which you are asking him to do. Because to the extent that it involves a purchase of anything, it seems to me that the ruble has a fluctuating value.

Mr. PROCTOR. It has a fluctuating value. But what I think he was referring to was in effect bartering, in which ruble values and dollar values were assigned. What we would be doing in the case of ruble comparisons of defense expenditures between the United States and the U.S.S.R. would be attributing to the United States those prices that the Soviets pay for their individual weapons systems programs, manpower, and things of that sort. And that is what we have done in this gross ruble comparison that I talked about. To do a comparison in the same degree as our dollar comparison would take a considerable amount of time; more than a year.

Representative BROWN of Michigan. In fact, he implied that for the same item, the same quantity, the same quality, et cetera, that there could be a different value of the ruble, depending upon the need at that time, et cetera, as to what the price and the value of the ruble would be.

Soviet Spending for R.D.T. & E.

Chairman Proxmire. I notice that in the dollar comparison report the research, development, testing and evaluation is carried separately from the chart showing overall defense expenditures. Does this mean that you are not certain how much the Soviets are spending for research, development and testing?

Mr. Proctor. That is correct. We have much less confidence in the dollar estimates for R.D.T. & E., than we do in the forces, in the operational military programs.

Chairman Proxmire. Then would it be fair to say that there is no certainty as to whether the Soviets are spending more, less, or about as much as we are for R.D.T. & E.?

Mr. Proctor. I think that the judgment that they are spending more is probably pretty good. I didn't carry it as strongly as the overall expenditure.

Chairman Proxmire. You say it is pretty good. But there is no certainty as to how much more, is that correct?

Mr. Proctor. That is correct.

Chairman Proxmire. How can you be sure that they are spending more?

Mr. Proctor. We can trace, most of the big military programs that are being researched, and developed and tested in the U.S.S.R. Comparable programs in the same number and at the same level are not underway in the United States.

R.D.T. & E. estimates least reliable

Chairman Proxmire. In your report you say that this is the least reliable of all your estimates.

Mr. Proctor. That is correct.

Chairman Proxmire. If that is the case, how can you be sure that they are spending more?

Mr. Proctor. I said pretty sure.

Chairman Proxmire. Pretty sure?

Mr. Proctor. With less confidence than in the total.

Soviet Military Technology Lagging

Chairman Proxmire. Is it not correct that in the areas of military technology where the Soviet Union is showing the most progress the United States has decided to go in other and more sophisticated directions, as in the cases of liquid missiles and vacuum tube technology?

Mr. Proctor. I think I would put it the other way around, the Soviets have not gone to the advanced technologies as quickly simply because they didn't have them available. Some of these technologies were not available to the Soviet Union.

Chairman Proxmire. So they are lagging in the most advanced technology?

Mr. Proctor. And many of the advanced technologies of the weapons systems.

Chairman Proxmire. And they are spending less in the area of advanced technology than we are; is that correct?

Mr. Proctor. They may be spending more. One of the things that is quite clear is that in the field of research and development the rela-

tionship between the value of inputs and the effectiveness of output is less certain than in many other areas. It is not like producing tanks, where you put so much steel and labor into process and you get the tank out the other end. In R. & D. the relationship between inputs and outputs is very tenuous. And you can work very hard on the problem and never solve it, and spend a lot of resources. It isn't that the Soviets don't desire to have some of these advanced technologies. It is our feeling that they have not been able to acquire these technologies as rapidly as we have.

Chairman PROXMIRE. You are just saying that as in so many other things you can't solve the technology problems by throwing money at them.

Mr. PROCTOR. You can't solve many of them, and often you do it inefficiently if you try.

SOVIET INDUSTRY INEFFICIENCY

Chairman PROXMIRE. Apropos of that Soviet efficiency you point out that the Russians are spending more rubles than it was formerly believed, partly because they are more inefficient. In other words, Ivan is not getting taller, he is getting fatter, and at least that may well be a part of his size, he has got some waist on him. I understand that in some instances it has been learned that some military items cost twice as much in rubles as was thought. Is that correct, and can you provide us with those specific examples of Soviet industrial inefficiency?

Mr. PROCTOR. [Deleted.]

U.S.–U.S.S.R. DOLLAR COSTS COMPARISONS WITHOUT MANPOWER

Chairman PROXMIRE. Now, one thing that continues to concern me about the dollar comparison is the treatment of manpower. So long as the Soviet Union has such a large number of people in uniform it will continue to look larger in dollar terms than the United States. And yet when the average Member of Congress thinks about relative military strength he thinks about weapons and military technology. What would a dollar cost comparison show if manpower costs were left out of both sides of the equation? Do you have anything like that?

Mr. PROCTOR. Yes; that is in our study. Actually, if you look at military investment, which is mainly the procurement of weapons systems and construction of facilities like silos, in which the weapons systems go, there is even more of a difference between the United States and the U.S.S.R.

In the chart on the slide you notice that Soviet military investment is about 85 percent greater than what the United States was spending. This is for weapons system procurement and construction associated with it. It is mainly weapons systems.

Chairman PROXMIRE. It seems to me that trend here is of the utmost significance. But if we can learn anything from agriculture, here they have 8 times or 10 times as many people in agriculture as we have, and we produce 20 percent more food. They can do the same in their investment program; they may be so inefficient in their defense contracting as compared to ours, that we may be getting better results.

Do you have any way of evaluating that? I realize that their industrial competence is probably a great deal higher than their agriculture.

Mr. Proctor. It is. They don't have the weather problems in that area.

I think we should be very careful not to fall into the trap of talking about the effectiveness of weapons systems on the basis of their inputs. What we are talking about here is the inputs of labor and capital, and so forth, that make the weapons they have deployed.

Chairman Proxmire. But what concerns me is the manpower input in producing these weapons.

Mr. Proctor. I see. What we have come to is a realization that the Soviet military production complex is not as efficient as we thought it was; it is about half as efficient as we thought it was, and much closer to the civilian efficiency, if you please.

Chairman Proxmire. I am puzzled at that last chart, because it shows them 85 percent above us if we take out manpower, and they are only 40 percent above us if you leave in manpower. And manpower is one area where they have got more than twice as much as we have. So it doesn't seem to make arithmetic sense.

Mr. Proctor. Let me clarify it a bit. The two components are not just investment which is here, and manpower which we have eliminated. There is a third and a fourth component: One of which is maintenance of operations, and the other component is for research, development, test, and evaluation. These have been left out also.

Chairman Proxmire. You see my question was, we wanted all of the elements except for manpower.

Mr. Proctor. They are not presented in that graphic.

Chairman Proxmire. R.D.T. & E. you say isn't there?

Mr. Proctor. It is not in there.

Chairman Proxmire. That is a military input other than manpower. And that is not there?

Mr. Proctor. If you wish to eliminate just manpower from the total, we can do that very easily.

Chairman Proxmire. Will you supply that for the record, then.

Mr. Proctor. We will supply that for the record.

[The following response was subsequently supplied for the record:]

Effect of Manpower Costs

If all costs for military personnel are subtracted from both sides, total estimated dollar costs for Soviet defense programs are more than 25 percent higher than total U.S. authorizations in 1975.

Senator Proxmire. This disproportion I have been talking about is more apparent when China's defense program is considered China isn't considered to be a threat militarily to the United States, because it doesn't have the weapons. But a dollar cost comparison makes it seem to be almost as large militarily as the United States because of its large army, isn't that correct?

Mr. Proctor. We have not published anything on a complete dollar cost comparison between the United States and China.

Chairman Proxmire. Could not do that for us for the record? I don't mean off the top of your head, but how costly would that be to put together.

Mr. Proctor. Very. The data are not available. There are some significant difference between the United States and the U.S.S.R., but

the differences between the United States and China military forces are far, far greater.

Chairman PROXMIRE. That is right. But, you see, here is the thing that concerns me. Fifty-eight percent of our military costs are personal costs, I understand.

Mr. PROCTOR. Right.

Chairman PROXMIRE. The Chinese have far more people in the military than we have. So that if you tried to give them the pay that we give our soldiers and all the other things that we give our people, doesn't it seem reasonable that they might be spending as much or more than we are in defense, even though they don't constitute any kind of a real international threat as compared to the Soviet Union?

Mr. PROCTOR. I don't know.

Mr. BURTON. I don't think it would come out that big.

Chairman PROXMIRE. But, you see, this raises the question—this questions the validity of the analysis. And when we hear this assertion that the Soviet Union is spending 40 or 50 percent more than we are, of course people get very concerned. And I think that we might have a clearer picture of it. I think it is fine to have this information discussed. Anything that we can get by way of a comparison is useful to us. But we have a better perspective if we can compare it with a force like China, which is immensely powerful within Asia and in China, I am sure, perhaps almost invulnerable, but outside it would be very weak; and no navy to speak of.

Mr. PROCTOR. I don't know how that would come out. But, we do have a comparison among the three countries with regard to military procurement only, which is the other line that we had up there, which went down in 1972 for China and then went up in 1975. This is not in terms of manpower at all.

Chairman PROXMIRE. That is the trouble, not in terms of manpower. One with manpower might be quite different.

Mr. PROCTOR. That is correct. But manpower is the element that is of concern to us as being overpriced in some way or other, and these numbers here reflect the dollar costs for weapons systems and construction related to it in those three countries.

Chairman PROXMIRE. Did I interrupt you, Mr. Burton?

Mr. BURTON. No. Except that pricing military manpower in China is much more difficult than in the Soviet Union, because it is very difficult to decide where you stop counting.

Chairman PROXMIRE. I understand.

Mr. BURTON. They think of almost everyone in the country as a soldier.

SOVIET MANPOWER ESTIMATES

Chairman PROXMIRE. Now, your recent estimates of Soviet manpower have increased. Can you give us the current estimate for the record and show what the categories of manpower are in the Soviet estimates for which there is no U.S. counterpart, such as border patrol and groups that are engaged only in civilian and military construction, road building units, and so on?

Mr. PROCTOR. We will give you the break down that we have.

[The following response w is subsequently supplied for the record:]

Estimated Soviet Armed Forces, mid-1975

	Millions
Ground Forces	1.81
Air Forces	0.50
Air Defense Forces	0.56
Strategic Rocket Forces	0.40
Navy	0.37
Ministry of Defense Command and Support [1]	0.79
Militarized Security Forces (e.g. Border Guards) [2]	0.33
Total Armed Forces	4.76

[1] Includes some 371,000 men assigned to the construction and transportation troops. These organizations participate in both military and civilian projects and have no counterpart in the U.S. Department of Defense. Also includes some 12,000 men in the main political administration and 39,000 assigned to local military commissariats, organizations which have no U.S. counterpart.
[2] No counterpart in the U.S. Department of Defense.

Chairman PROXMIRE. Is it fair to say that most of the increase in new estimates is not in combat units but in support crews such as border guards, construction, and hospital and medical personnel?

Mr. BURTON. Yes; it is in general support, in the area of general support rather than combat.

Chairman PROXMIRE. I understand, for example, that they have reduced the number of civilians working for the military, while they have increased the military personnel.

You have it right here in the chart on the slide. That is active military manpower. I see. That is a better comparison.

Mr. PROCTOR. The problem is not that the Soviets have changed, but that the U.S. estimates of the Soviets have changed.

Chairman PROXMIRE. Active military manpower on the other hand that would include building roads and doing other construction work that we don't usually associate with the military, or have our military people doing.

Mr. PROCTOR. There is not very much of that, not as much as in China or some of the other Communist countries.

Chairman PROXMIRE. But, you do have a large number on the Chinese border?

Mr. PROCTOR. Yes; we do, a little less than half million.

SOVIET AIRCRAFT CARRIERS

Chairman PROXMIRE. What are the latest estimates of the Soviet carrier program? I understand the carrier *Kiev* has been on sea trials in the Black Sea, and there may now be information on whether this carrier has an antisubmarine warfare or attack mission, and the type of capability of the aircraft it carries. Do you have information on that?

Mr. PROCTOR. It certainly doesn't have an attack mission in the sense of some of our carriers. It will have a mission which is ASW——

Chairman PROXMIRE. Is that antisubmarine?

Mr. PROCTOR. Antisubmarine warfare. That is one of the missions. And it also will have additional functions such as in showing the flag and supporting other operations, but it will not have an attack mission in these sense of our aircraft carriers. The *Kiev* will not carry bombers designed to penetrate to the interior.

Chairman PROXMIRE. What kind of capability do the aircraft carriers have; mainly fighters?

Mr. PROCTOR. The *Kiev*'s aircraft are vertical or short takeoff and landing (V/STOL) fighters and ASW helicopters.

Chairman PROXMIRE. Will you tell us for the record whether the *Kiev* carrier has the Freehand V/STOL aircraft, and if this is the same V/STOL the Soviets have been known to have?

Mr. PROCTOR. I am not sure about the question, sir.

Chairman PROXMIRE. I want to know whether the Freehand V/STOL aircraft is the aircraft on the *Kiev* carrier.

Mr. PROCTOR. I am not familiar with that. But there is one that has been under development for some time.

Chairman PROXMIRE. Do you have the name of it?

Mr. PROCTOR. Just the in-house reference to it.

[The following response was subsequently supplied for the record in reference to the above interrogation:]

THE V/STOL AIRCRAFT FOR THE "KIEV" CLASS CARRIER

The designation "Freehand" was assigned by NATO to an early Soviet R&D V/STOL aircraft which was shown at a 1967 air show. The aircraft developed for the *Kiev* is a new and different design which has not yet been given a NATO designator.

Chairman PROXMIRE. Do you have any information on the number of carriers completed and under construction?

Mr. FIRTH. There is just one on which the construction has been completed.

SOVIET MISSILE ACCURACY

Chairman PROXMIRE. Can you discuss the improvements in the Soviet missile accuracy in terms of the reentry vehicle, software, and computers?

Mr. PROCTOR. What aspect are you interested in?

Chairman PROXMIRE. I just wonder about the accuracy for the reentry vehicle, the reliability of the computers, and so forth. How good a weapon is this? We have had superiority in the past in accuracy. I want to know if we are losing that.

Mr. PROCTOR. We estimate that the Soviet ICBM systems now being deployed are considerably more accurate than the old systems.

SOVIET MISSLE RELIABILITY

Chairman PROXMIRE. Soviet missiles have been notoriously unreliable; that is, the probability at each stage of their missiles performing as intended is low. To what extent have the Soviets solved the reliability problem?

Mr. PROCTOR. I am not aware that the Soviet missiles are any more or less reliable than the United States. The premise I think is a question that ought to be asked.

Chairman PROXMIRE. That is interesting, because the information we have had in the past is that they have not been as reliable as ours. Can you give us figures on reliability? Your assumption is that there is no evidence that they are any less reliable than ours now, is that the response.

Mr. PROCTOR. At similar stages I would say not less reliable.

Chairman PROXMIRE. When you say at similar stages, we are ahead of them, is that right?

Mr. PROCTOR. Well, since the United States is not testing any new missiles currently, it is hard to say how reliable those missiles that are not being tested would be as compared to missiles that are now being developed and tested in the Soviet Union. I guess that is the best way to put it. In the earlier stages of development, the Soviet missiles, just as most other new missiles, are not very reliable. But by the time they reach the operational stage, they are pretty reliable.

Chairman PROXMIRE. Are their deployed missiles considered to be as reliable as ours, as far as you know?

Mr. PROCTOR. There is one direct comparison that I can make. The United States has never fired an ICBM from an operational silo in the field. The Soviets have fired several of those. We do not know how reliable the U.S. missiles would be actually fired from operational silos. So, you can't make the comparison.

Chairman PROXMIRE. So, they do have an advantage in having fired theirs?

Mr. PROCTOR. That is right. They know about theirs, and we don't know as much about ours.

Chairman PROXMIRE. Can you give us for the record your estimate of the reliability of missiles by system?

Mr. PROCTOR. Yes.[1]

SOVIET INVOLVMENT IN EGYPT

Chairman PROXMIRE. There have been published reports of Soviet difficulties in its relations in Egypt. Are the Soviets completely out of Egypt, or do they still maintain some facilities there?

Mr. PROCTOR. The major advantage they had was the use of the port facilities. Access to the facilities has been terminated. One or two of the vessels in the Alexandria shipyard were in no condition to leave under their own power, but they were out by April 15.

Chairman PROXMIRE. And they are out?

Mr. PROCTOR. They are not.

Chairman PROXMIRE. They are out as of the 15th of April?

Mr. PROCTOR. Yes.

SOVIET "GUNBOAT DIPLOMACY"

Chairman PROXMIRE. Many people are concerned about Soviet actions in foreign countries and the nations around the world. Will you prepare for the record an estimate of whether they are adopting something like a gunboat diplomacy policy, and if this is the meaning of their actions in Angola and the Indian Ocean?

Mr. PROCTOR. We will provide that for you.

[The following response was subsequently supplied for the record:]

SOVIET "GUNBOAT DIPLOMACY"

The Soviet Navy has been used in low risk shows of force to support client states or sympathetic governments against threats. For the most part, these have involved posturing by small naval forces which were more powerful than other

[1] The information requested for the record by Chairman Proxmire is classified material.

forces in the area. The USSR has also used its navy in attempts to constrain—merely by its presence—the actions of US and other Western forces in a number of crisis situations, particularly in the Mediterranean and Indian Ocean areas. The Soviet leadership has thus sought with its navy to influence foreign actions—especially those of the US—at some cost and risk, but they have not indicated that they would be willing to push the risk to the point at which a naval confrontation with the US would be likely to ensue. Rather, they have been clear in their desire not to do so. With the naval forces available to them—which have only a limited capability to intervene in distant areas—we expect this approach to continue.

Estimates of Soviet Mirv Program

Chairman Proxmire. One of the disclosures that concerns me most so far as the Church investigation is concerned is the evidence that the CIA tailored its reports on the Soviet MIRV program as a result of pressures applied by former Secretary of Defense Melvin Laird and the White House. Will you discuss that and state what steps have been taken to prevent a recurrence of that problem?

Mr. Bush. Mr. Chairman, I have stated that we would do everything we could inside our building and inside the community, to see that this did not happen. I have promulgated regulations since I have been Director of Central Intelligence that were sent to the entire intelligence community.

One of the most fundamental principles of them, if not the first point, was I believe, that our estimates should come forward without regard for any existing budgets or programs. And I made this clear in my first comments to a group at CIA, the largest group that we could get to assemble. I have reiterated this at our staff meeting over and over again, and I am confident that the CIA analysts not only have the message, but had it loud and clear before I came here. So, I think we have done administratively what is essential to see that estimates are protected from policy bias.

U.S.–U.S.S.R. Civil Defense Gap

Chairman Proxmire. I have some questions respecting civil defense. Congressman Brown of Michigan and I both served on Banking Committees in our respective Houses, and the Banking Committees, you know, have the responsibility for the defense products, and we also have a subcommittee of the Banking Committee on defense products. So, we are very concerned with civil defense and its implications. And the implications are very substantial.

I have a series of questions I would like to ask you for the record on that. And I will just submit those and you can provide the answers for the record.

I have other questions for the record also.

[The following questions and answers were subsequently supplied for the record:]

Response of Hon. George Bush to Additional Written Questions Posed by Chairman Proxmire

Question 1. There has been a minor stir recently about an alleged "Civil Defense" gap between the United States and the Soviet Union. A column in this morning's paper cited the well-known fact that the Soviet Union spends around a billion dollars annually on civilian and industrial defense. Can you confirm that figure?

Answer. We cannot confirm a one billion dollar annual spending figure for Soviet civil defense. While we believe that we have a good understanding of the overall scope of the program, we have not as yet fully developed the kind of detailed description of all of the individual building blocks of the program that would be required to derive a reasonably reliable cost estimate. To our knowledge the Soviets have never provided any information on their spending for civil defense and we believe that the one billion dollar figure is essentially a "guesstimate."

Question 2. Does your Agency see anything especially disturbing in the Soviet civil defense program or in that of the People's Republic of China?

Answer. The Soviet civil defense program has been in existence for many years, but seems to have received increased attention since the late 1960s. The Soviets apparently believe they can provide a substantial degree of protection to their population and economy. This in itself is disturbing, but the real effectiveness of some of their programs in the face of massive nuclear strikes is questionable. We are closely following developments in Soviet civil defense in order to assess changes in its scope and effectiveness.

In the People's Republic of China a substantial program of underground protection structures exists in the major cities. Thus far, however, there is little reason to believe that the Chinese civil defense efforts would make a significant change in the PRC's ability to survive massive nuclear strikes.

Question 3. Would you regard the current Soviet civil defense effort as in any important way different from the rather substantial program that the Soviets have maintained in this area since the end of World War II?

Answer. The current Soviet civil defense effort is the product of an evolutionary development of civil defense concepts dating back to the 1930s, and modified in the 1950s and 1960s to conform to nuclear requirements. Since the late 1960s and early 1970s the emphasis placed on some programs, such as shelter construction and specialized training, seems to have increased. The current programs, however, are basically the same as in the post-war period; the difference lies in the degree of emphasis and in the necessary modifications for dealing with a nuclear threat.

Question 4. Is your Agency giving special attention to the study of the Soviet civil defense program? If so, when do you expect to be able to report your findings to the President? If your study is complete, has it been made available to the National Security Council? What were its conclusions?

Answer. In the past year we have given increased attention to Soviet civil defense activity. Currently there is an in-depth classified interagency study in progress. We anticipate the report will be finished in late summer. Some of our preliminary findings already have been communicated to the NSC staff.

Question 5. It has been suggested that Soviet civil defense initiatives since 1972 indicate an attempt to achieve the same objectives as would be achieved by an anti-ballistic missile defense system, that is, limiting damage to life and property? Do you have any evidence that would support this conclusion or refute it? What evidence do you have? (Or why no evidence?)

Answer. Since 1972, there have been no radical changes in the Soviet civil defense program that we can observe. The defense of the homeland has been an active Soviet concern since the inception of the Soviet state. The task of protection, however, has increased progressively along with weapons developments. Nuclear weapons and missile delivery systems raised the vulnerability of the population and the economic base, thus requiring a broader program of damage limitation. In this respect, two kinds of programs exist: active anti-air and anti-missile defenses; and passive (civil) defense. They both have the same objective, that is, to limit potential damage to the population, and the military and economic bases.

Question 6. Some experts have called Soviet civil defense efforts upsetting to the superpower nuclear balance. Would you agree with that assessment? Why?

Answer. In a strategic equation, the development of a defensive capability by one side could upset the existing balance depending upon the effectiveness of the program and perceptions of what constitutes nuclear deterrence.

Question 7. There is also talk that the Soviet Union has tested components for an ABM system, possibly in violation of the ABM treaty of 1972. Do you have any evidence of such tests? What does the evidence show?

Answer. The information to answer this question is classified. I would be pleased to have some of my specialists discuss this with you personally.

Question 8. The thrust of these alarms about Soviet civil defense and possible ABM testing seems to be that the Soviet Union might be planning to abrogate

the 1972 ABM Treaty. Do you have any reason to believe that there is merit in these claims? On what do you base your conclusions?

Answer. We see no indication that the Soviets intend to abrogate the 1972 ABM Treaty. The basis for this statement cannot be discussed at an unclassified level.

Question 9. The CIA has made dollar estimates of Soviet defense expenditures for a number of years. When did you first begin making dollar estimates?

Answer. CIA's first rough estimates of the dollar costs of Soviet forces were made in the late Fifties.

Question 10. In a 1969 memorandum, the Agency estimates US and USSR defense expenditures as follows:

[In billions of dollars]

	United States	U.S.S.R.
Strategic offensive	4.8	6.5
Strategic defensive	1.7	5.6
General purposes	32.6	16.4
R.D.T. & E. & S.	14.3	14.2
Command and support	26.7	16.0
Total	80.1	58.7

Can you provide similar comparisons as frequently as possible since the 1950's?

Answer. Dollar cost estimates for Soviet defense programs are updated periodically to reflect our continuously improving understanding of Soviet forces and programs. The price bases are also changed. The dollar cost estimates presented in the 1969 memorandum reflected our perception of Soviet forces at that time and were expressed in 1968 prices for the U.S. and 1966 prices for the USSR. Consequently, they are outdated, not fully compatible with later estimates, and should not be used for detailed comparative analysis. Our most recent estimates of the dollar costs of Soviet defense programs for the period 1965–1975 and DoD authorization data for that period were presented at an unclassified level in our recent publication, "A Dollar Comparison of Soviet and U.S. Defense Activities, 1965–1975" (SR 76–10053). A detailed classified supplement to that paper is now being prepared. If you require more detailed information, I will be happy to provide it to you on a classified basis when the supplementary report is completed.

Question 11. I also note there is a 1964 document comparing U.S. and Soviet expenditures in dollars in Figure 9. Would you please quantify this chart and provide it for the record?

Answer. The data presented in the 1964 study were based on the intelligence community's high and low estimates of Soviet forces at that time. They are outdated and not consistent with either the 1969 study or current estimates. The numerical data for Figure 9 of the 1964 study are as follows:

[In billions of dollars]

		U.S.S.R.	
	United States	High	Low
Strategic attack	6.7	5.5	4.2
Strategic defense	1.9	6.4	4.8
General purpose	18.9	17.7	14.4
R.D.T. & E. & S.	12.8	11.0	6.7
Other	16.4	6.4	5.2

Question 12. In a previous letter to your Agency, I asked that a number of items from these two reports be reviewed for declassification. Would you please examine these documents and indicate what can be made public?

Answer. We have no objection to declassifying the portions of the documents you cite, but would point out that the data are now outdated. Moreover, we would also note that the 1964 and 1969 data are not consistent with one another because they are based on different force estimates, costing methodologies, and price bases.

Question 13. Provide a table showing Soviet food exports and the recipient countries for 1970 through 1975.

Answer. The table follows:

U.S.S.R.: EXPORTS OF AGRICULTURAL COMMODITIES AND FOODSTUFFS[1]

(In millions of U.S. dollars)

	1970		1971		1972		1973		1974		1975	
	Agricultural commodities	Food	Agricultural commodities	Food	Agricultural commodities	Food	Agricultural commodities	Food	Agricultural commodities	Food	Agricultural commodities	Food
World	1,588.2	970.4	1,791.6	1,192.1	1,432.5	732.8	1,627.1	981.3	2,747.6	1,681.8	2,386.5	NA
Regional groupings:												NA
Communist	1,123.4	650.6	1,152.0	747.8	893.2	480.1	895.8	559.3	1,275.3	765.1	1,423.8	NA
East Europe	865.4	439.1	913.8	555.6	661.2	306.5	628.8	332.6	857.1	443.1	910.7	NA
Non-Communist	282.1	165.7	442.1	268.2	390.6	125.2	731.3	115.5	472.3	303.7	962.7	NA
LDC's	83.4	81.1	121.5	116.6	38.9	27.6	54.0	36.0	1,472.3	111.7	132.4	NA
Developed West	198.7	84.6	320.7	151.6	351.7	97.7	362.8	79.6	185.3	192.0	----------	NA
United States	9.3	9.3	4.9	----------	4.9	----------	3.2	----------	2.1	----------	1.8	NA
Hard currency[2]	227.2	126.2	378.6	216.6	349.9	104.2	373.7	95.2	697.8	229.8	549.1	NA

[1] Soviet Foreign Trade Handbooks: Definition of agricultural commodities is that used by USDA for U.S. trade. "Agricultural commodities consist of (1) non-marine food products and (2) other products of agriculture which have not passed through complex processes of manufacture. . . ."

[2] Trade conducted in convertible currency.

Question 14. Please explain your statement that although new housing edged up in 1975, the supply of living space per capita remains below Soviet norms.

Answer. The basic index for evaluating housing conditions in the USSR is the per capita amount of living space available (living space refers only to bedrooms and living rooms). Under Brezhnev, this measure has slowly increased from 6.8 square meters in 1965 to 8.2 square meters in 1975. If plans are met, by 1980 per capita living space is expected to reach 8.9 square meters, still less than the Soviet norm of 9 square meters established as a minimum sanitary standard in 1928.

Question 15. Your prepared statement shows a deterioration in the Soviet trade balance. The hard currency trade deficit went from $900 million in 1974 to $5 billion in 1975. What is the forecast for 1976?

Answer. Early indications point to a Soviet hard currency trade deficit in 1976 of $5 to $6 billion, compared to $6.3 billion in 1975. Soviet exports should increase substantially because of stronger demand in the West. This increase will be partially offset by higher imports of grain and deliveries of machinery and equipment already ordered.

Question 16. At what point would the Soviet trade deficit become unmanageable?

Answer. Because the USSR is able to obtain deferred credits from the West and has a surplus on its non-trade accounts, it has been able to run planned deficits in its hard currency merchandise trade. Unexpected trade deficits are caused by the need to import massive amounts of Western grains or because of vagaries in the world markets which may reduce export earnings below projected levels. The USSR has shown a preference for balancing such unplanned deficits by selling gold and/or borrowing short- and medium-term funds from Western commercial banks.

Moscow's ability to manage its trade deficits is thus dependent upon the willingness of Western governments and banks to continue to lend heavily and on the condition of the Western gold markets. Should events limit Soviet ability to obtain hard currency in this manner, Soviet planners may be forced to cut back on imports from the West or to expand hard currency exports beyond desirable levels.

The centralized control over trade and payments places the USSR in a better position than market economies to deal with the above problems. Moscow's long-term need for Western credits makes it highly doubtful that the USSR would ever default on existing obligations. In effect, deficits will always be managed.

Question 17. Please elaborate on your statement that there have been continued delays in new plant completion and equipment deliveries in the Soviet Union, and supply figures about these problems.

Answer. Investment has long been one of the chief concerns of Soviet leaders; failure to complete projects—thereby tying up enormous amounts of capital unproductively—still remains a serious problem despite a continuing campaign aimed at rectifying it. In 1975 the Soviets plugged away at their dual program of (1) completing projects that have been under construction for years and (2) finishing the renovation and expansion of existing plants, many of which have been undergoing modernization for similar periods of time.

Gross additions of new fixed capital increased by 7.8 percent in 1975, an improvement over the previous year but still well below the 10.6 percent increment achieved in 1973. As in prior years, this retardation in growth reflected problems in the supply and installation of machinery and equipment rather than a lack of increases in new construction starts. Delays in plant completion and equipment delivery during 1975 added to the backlog of unfinished construction, which rose by 8.3 percent—compared with increases of 6.8 percent in 1974 and only 2.9 percent in 1973.

Question 18. You point out that the new 5-year plan calls for a continued large share of investment in the agricultural sector. But it can also be said that the new plan does not call for increasing this share. Isn't this surprising in view of the poor performance in the farm sector since 1970?

Answer. Agriculture will continue to receive high priority in the Soviet investment program for 1976–80. Despite (or perhaps because of) this sector's disappointing record in 1975. The share of agriculture in total investment is planned at 20 percent for the 10th Five Year Plan (FYP)—roughly matching that sector's share for 1971–75.

The planned annual growth in agricultural investment of 3½ percent is, however, markedly slower than the 9½ percent rate realized in the first half of the decade. This reduction is in line with the overall tightening of investment

funds planned for the entire economy, which will fall from a 6.8 percent annual rate in 1971–75 to 3.9 percent in the current FYP.

Question 19. Has the heavy investment in defense harmed the Soviet civilian economy, and is there any evidence, such as speeches, or articles in Soviet journals and newspapers, that policymakers are becoming concerned over this?

Answer. The new CIA estimates of Soviet defense spending have altered significantly our perceptions of the economic costs of the Soviet defense effort. Analysis of the complex issues of economic burden and resource allocation is still in its preliminary stage. But clearly, balanced development of the Soviet economy has been impeded by the defense effort. It is also clear that the Soviets are far more willing than we had thought to forgo growth in the civilian sector (and consumer satisfaction) in favor of expanding military capabilities.

There are no indications that the leadership has seriously considered diverting resources from military to civilian use in response to consumer demands and we have very little evidence on how Soviet policymakers assess the burden of defense spending. Nor do we know how the leadership's views on defense priorities relate to the slower economic growth planned for the current five year plan. On the rare occasions that Politburo members have addressed these subjects, they have generally noted that, although defense spending is a burden and the resources could be better used elsewhere, "defense requirements" will be met as long as necessary. Undoubtedly the defense effort has been a matter of concern and debate within the leadership, but these concerns have not, in the past, prevented steady increases in military programs. Major defense programs have been generously supported even in periods of economic setbacks.

Question 20. Please discuss the characteristics of the Fishbed engine and state why experts believe it is an example of poor quality equipment. Show how recent analyses of this item and other items of Soviet military technology in the areas of shipbuilding, aircraft, missiles and electronics, contributed to the reassessment of military spending in rubles, using specific examples of instances where either the ruble costs were found to be too low or the dollar costs were found to be too high.

Answer. Soviet aircraft engines in general have fewer parts, are manufactured to lower tolerances, and use lower quality metals than US engines. As a result, Soviet engines typically would cost less in dollars than we previously estimated. On the other hand, we have learned recently that some items of Soviet military equipment are more complex and advanced than we thought and would cost more in dollars than we had estimated.

A completely independent analytical effort has convinced us the ruble costs in Soviet defense industries across the board are far higher than we previously believed. This is especially true in high technology areas. A more explicit discussion of these analyses cannot be made at the unclassified level.

Question 21. Both the recent reports on dollar spending and Soviet ruble spending point out the unreliability of our Soviet R&D estimates. Please describe how the methodology for estimating Soviet R&D differs from other defense categories and why it is so difficult to make estimates in this area.

Answer. The estimates of dollar costs and ruble outlays for Soviet military RDT&E are based primarily on analysis of Soviet financial statistics, whereas the estimates for other components of the Soviet defense effort are costed directly by applying cost factors to observed forces and programs. Estimating RDT&E costs from Soviet statistics is difficult because there are serious doubts about the coverage and credibility of the basic Soviet data, as well as the factors used to convert these data from rubles to dollars. Costing RDT&E programs directly would be extremely difficult because their outputs are not easily defined and because the relationship between inputs and outputs is less direct for RDT&E than for production of hardware.

Question 22. State whether in the dollar costing of Soviet defense spending, any Soviet weapons systems or components are either beyond the state of the art in the United States or so advanced technologically that it is not possible to calculate what it would cost in dollars to develop or produce the same weapons systems in the United States. List any such weapons sysems or components.

Answer. We have not identified any such weapons systems or components.

Question 23. State whether in the ruble costing of US defense spending, any Soviet weapons systems or components are either beyond the state of the art in the Soviet Union or so advanced technologically that it would not be possible to calculate what it would cost in rubles to develop or produce the same weapons systems or components.

Answer. We presume you mean "US weapons systems or components" in the second line of the question. Generally speaking, the USSR lags far behind the US in the design and production of advanced electronics components and computers, and in some aspects of missile propulsion and guidance technology. They also lag in the area of advanced machine tools for producing advanced weapons. Ruble costing of such US weapons systems would be exceedingly difficult because there are no comparable Soviet examples.

Question 24. State whether the costs of applying or implementing new military technology are generally greater in the Soviet Union than they are in the United States so that it is more costly in the USSR to move from technological advances in research and development to production.

Answer. Our new information and analysis on Soviet costs would imply that this is the case.

Question 25. List the Soviet weapons systems that the CIA believes to be more advanced or sophisticated technologically than their U.S. counterparts.

Answer. Although some Soviet weapons systems have capabilities that exceed those of U.S. systems in such things as range, these are the result of design choices and do not reflect a higher state of technology.

Questions 26 through 28. These questions relate to recommendations of the Military-Economic Advisory Panel.

Answer. While unclassified, the recommendations of the Panel are considered internal working recommendations which are still being considered.

Question 29. Compare the size and other characteristics, the capabilities, and the missions of the LKA and the Kiev carrier.

Answer. The Tarawa is a large U.S. amphibious warfare ship of a new class [LKA] that combines the features of an amphibious transport dock and a helicopter carrier. It has a full length flight deck of some 820 feet for its 30 aircraft, a landing craft docking well, a garage for trucks and armored vehicles, and troop berthing for a reinforced battalion. The Tarawa has a half-length hangar deck connected to the flight deck by an elevator on the port side amidships and another elevator at the stern. The floodable docking well below the stern elevator is 168 feet long and 78 feet wide and can accommodate four utility landing craft. The ship is fitted with extensive combat medical facilities.

The Kiev class is the newest and largest surface combatant ship in the Soviet Navy. It is slightly longer than the Tarawa and is an aircraft carrier, although not in the accepted U.S. sense. It lacks catapults and arresting gear, but carries about the same number of aircraft as the Tarawa. The Kiev has a canted flight deck about 600 feet long that is connected to the hangar deck by two elevators. The Soviets call this ship an "antisubmarine cruiser," indicating that its purpose and design is for detection and destruction of submarines. The aircraft complement on the Kiev includes antisubmarine helicopters, which are not suitable for amphibious work, and V/STOL fixed wing aircraft which are best suited for air defense and reconnaissance. Unlike the Tarawa, the Kiev has antisubmarine missile systems. The Kiev has no docking well or vehicle garage, and probably no extensive combat medical facilities. A more detailed unclassified description of the Kiev appears in Janes' Fighting Ships, 1975–76."

Question 30. State the number of Soviet missiles that are presently MIRVed. State the number of MIRVs deployed by the Soviet Union in 1975 and estimate the number that will be deployed during the years 1976 through 1980.

Answer. As noted in Secretary Rumsfeld's January 1976 *Posture Statement*, we expect that the Soviets will eventually deploy close to the 1,320 MIRVed missiles they are permitted under the Vladivostok understanding. Further details on Soviet MIRVed missile programs can be provided only on a classified basis.

Question 31. Please state whether Soviet R&D tends to be excessively redundant with respect to missiles, aircraft and other items of advanced technology. Do the Russians tend to develop simultaneously more than one new weapon system to replace an existing system?

Answer. The Soviets do tend to be somewhat redundant with respect to certain systems. Specific examples are:

The SS–7 and SS–8 are both pre-1964 ICBMs with similar capabilities.

The liquid-propellant SS–11 and solid-propellant SS–13 are a similar class of ICBMs.

The SS–11 Mods 2 and 3, SS–17 and SS–19 systems are replacements for the SS–11 and Mod 1.

Beginning in 1973 the new SU–17/Fitter C, the MIG–23/Flogger and the SU–19/Fencer tactical fighter aircraft became operational. They all have sub-

stantially improved range, payload, avionics and ECM capabilities compared to other fighters.

Question 32. Please provide a table showing Soviet shipbuilding deliveries for each of the years 1960 through 1975, broken down to show nuclear and diesel ballistic missile submarines, nuclear and diesel attack submarines, major surface combatants over 3,000 tons, major surface combatants 1,000 to 3,000 tons, minor surface combatants, underway replenishment ships, and other ships (including amphibious).

Answer. CIA does not have primary responsibility for keeping track of minor Soviet combatants. Furthermore, a table of this nature would be classified if prepared by this Agency. If you wish to be briefed personally on submarine and major surface combatants, I will be happy to arrange it.

Question 33. Provide a dollar cost comparison of NATO and Warsaw Pact defense expenditures.

Answer. We do not have such estimates. With our limited manpower resources, we have concentrated on costing Soviet programs and comparing them with the U.S.

Question 34. Has Soviet progress in high accuracy guidance technology with respect to ICBMs been more or less rapid than was estimated one year ago? If the answer is that progress has been more rapid, please discuss the differences between what was estimated by the CIA and what actually happened.

Answer. Soviet progress in ICBM accuracy has been just about what we estimated one year ago.

Question 35. State whether the Soviet Union appears to have adopted a strategy of war fighting or of deterrence with respect to strategic warfare.

Answer. The Soviets are committed to the acquisition of "war-fighting capabilities," a decision which reflects a consensus on the need to assure the survival of the Soviet Union as a national entity in case deterrence fails. It also accords with a long-standing tenet of Soviet military doctrine that a nuclear war could be fought and won, and that counterforce capabilities should be emphasized in strategic forces. Mutual assured destruction as a desirable and lasting basis for a stable strategic nuclear relationship between superpowers has never been doctrinally accepted in the U.S.S.R. But Soviet political and military leaders probably regard it as a reality which will be operative at least over the next decade.

Question 36. Discuss the Soviet MARV program and compare it with the U.S. MARV.

Answer. The U.S. has been developing MARV technology for several years. An extrapolation of U.S. technology suggests that the Soviets will not be able to test a MARV system for at least several more years.

Question 37. Discuss the Soviet program to develop a successor to the SS–N–8 SLBM and compare Soviet SLBMs deployed and under development with the U.S. SLBMs deployed and under development.

Answer. It is clear that the Soviets have already commenced new long-term programs to upgrade their SLBM force. Specifics on these programs cannot be discussed at an unclassified level. The U.S. plans to begin deploying the longer range MIRVed Trident C–4 SLBM in 1979. A comparison of current U.S. and Soviet SLBM systems from the DoD posture statement is provided in the table below:

COMPARISON OF UNITED STATES AND U.S.S.R. DEPLOYED SLBM's

United States			U.S.S.R.		
System	IOC	Warheads	System	IOC	Warheads
Polaris A–3	1964	[1]3	SS–N–5	1963	1
Poseidon C–3	1971	[2]14	SS–N–6, Mod 1	1968	1
			SS–N–6, Mod 2	1974	1
			SS–N–6, Mod 3	1974	[1]2–3
			SS–N–8	1973	1

[1] MRV.
[2] MIRV.

Question 38. State whether there is evidence and what the evidence is that the USSR is developing a new series of long-range ICBMs to replace or supplement the SS–18.

Answer. There are indications from diverse sources that the Soviets are continuing with the development of new strategic ballistic missiles.

We anticipate a follow-on system to the SS–18 based on previous Soviet practices: The SS–18 is a follow-on system to the SS–9 which was an improvement over the SS–7.

Question 39. State whether the CIA has tended to underestimate or overestimate the scope and intent of Soviet R&D over the past ten years, or whether estimates in general have proven to be correct.

Answer. The CIA has a good record of detecting and determining major characteristics and missions of new weapons systems soon after R&D testing begins and usually well before IOC. The record is spottier on predicting weapon systems development prior to flight testing with cases of both overestimation and underestimation. The record does not show a trend to either overestimating nor underestimating the scope and intent of Soviet RD.

Soviet Bombers

Chairman Proxmire. I would like to ask a few more questions on the Backfire bomber.

Mr. Bush, during the debate on the B–1 bomber in the Senate, a number of questions were raised about the Soviet bomber fleet and particularly the Backfire bomber. Perhaps you could clarify some of these issues. Let's begin with the number of active Soviet heavy bombers in the inventory.

How many do they have, and what types?

Mr. Firth. I believe there are about 150 Bear and Bison aircraft, Senator, excluding tankers.

Chairman Proxmire. What kind of range?

Mr. Proctor. Intercontinental.

Chairman Proxmire. Are they able to reach this country and return?

Mr. Firth. Yes.

Chairman Proxmire. About 150?

Mr. Firth. Yes.

Chairman Proxmire. And how many tankers do they have?

Mr. Firth. About 40 tankers.

Chairman Proxmire. So they have 40 tankers for 150?

Mr. Firth. That is right.

Chairman Proxmire. I see. How old are these aircraft? When was the last one of each kind produced?

Mr. Firth. I believe the last Bear was produced in about 1971 for the naval air. They were producing them up through——

Chairman Proxmire. You say the last one was produced in 1971. How far back do they go?

Mr. Firth. In the early 1950's they started producing them.

Chairman Proxmire. What weapons payload do they carry?

Mr. Firth. I don't have those figures immediately available; but we can supply them.

[The following response was subsequently supplied for the record:]

Soviet Bomber Payloads

All of the strike-configured Bison bombers carry freefall bombs. About 70 Bears each carry one air-to-surface missile; about 35 are armed with freefall bombs.

Chairman Proxmire. How about the Backfire? Is that in production?

Mr. Firth. It is in production.

Mr. Bush. The community just raised the estimate on the rate, sir, to 2½ a month. It was 2 per month.

Chairman PROXMIRE. And how many do you have in inventory at the present time?

Mr. FIRTH. I think there have been a total of about 80 produced, but not all in active inventory. That would include the number produced for testing and prototypes.

Chairman PROXMIRE. You talk about the Bear. I don't want to confuse it with the Backfire. Is the Backfire also intercontinental, able to reach this country and return?

Mr. FIRTH. It has the capability of intercontinental range, yes.

Chairman PROXMIRE. With tankers, and refueling?

Mr. FIRTH. I am not sure whether that includes one refueling or not.

Chairman PROXMIRE. And how about the payload that they carry?

Mr. FIRTH. It is much less than either the Bear or Bison.

Chairman PROXMIRE. How much less?

Mr. BUSH. The Backfire without refueling, sir, can strike some parts of the United States and return to the U.S.S.R.

Mr. FIRTH. It can go on a one-way mission and recover in Cuba, for example.

Mr. BUSH. Using a forward base, it can reach part of the Western United States and back without refueling.

Chairman PROXMIRE. Can you tell us what is the payload of the Backfire?

Mr. FIRTH. Again, I don't have those figures. We can supply them.

[The following response was subsequently supplied for the record:]

BACKFIRE PAYLOAD

The Backfire can be armed either with bombs or with two large air-to-surface missiles.

SOVIET CRUISE MISSILE R. & D.

Chairman PROXMIRE. What is the status of Soviet cruise missiles research and development?

Mr. BUSH. Well behind the United States.

Mr. FIRTH. That is right. This is much more an R. & D. question.

Chairman PROXMIRE. When you say behind the United States can you give us a notion in months and years?

Mr. PROCTOR. If I may, sir, let's divide cruise missiles into two kinds. In the shorter range tactical, mainly coastal defense and antishipping, the Soviets have far more than the United States has. And these are mostly subsonic.

If you are talking about cruise missile of the type that the United States is proposing to build, these are more or less intercontinental, or to be used in a noncoastal, nonantiship role. They are far behind us. So they are quite different.

Senator PROXMIRE. When you say far behind us, what does that mean?

Mr. PROCTOR. We have not seen any tests of these things.

Chairman PROXMIRE. When did we first test ours?

Mr. PROCTOR. I don't know.

Chairman PROXMIRE. But they are several years behind?

Mr. PROCTOR. I would not like to put a date on it.

BACKFIRE BOMBER

Chairman PROXMIRE. You say that they are producing about 2½ Backfires a month?

Mr. PROCTOR. Two to 2½ a month, that is correct.

Chairman PROXMIRE. And they have about 80 in the inventory. What is the final number?

Mr. PROCTOR. Eighty have been produced.

Chairman PROXMIRE. What is the final number they expect to have?

Mr. PROCTOR. We don't know. We would project it out to an inventory of about 400, something like that. This is based on a set of assumptions as to how many of their existing aircraft would be replaced by Backfire, and what missions they would have. And these vary.

Chairman PROXMIRE. Based on deployment patterns, what is the mission of the Backfire?

Mr. PROCTOR. So far it has been deployed to bases that have been used for the medium bomber. And, therefore, we assume that at least the initial deployment is for the same kind of mission—peripheral and antishipping, as the Badger and the TU–22.

There is as you probably realize, some difference in view within the intelligence community as to the Soviets intention with regard to the use of the Backfire. It is a supersonic aircraft which is ideally suited for peripheral and antishipping roles.

Chairman PROXMIRE. By peripheral, you mean peripheral on the border of Soviet Union?

Mr. PROCTOR. That is correct, that is Western Europe, England, China, and southern reaches. To the extent that the Soviets want to use the Backfire for this purpose, it has the capabilitiy.

Chairman PROXMIRE. Let me interrupt to ask—you say there is a difference of opinion in the intelligence community?

Mr. PROCTOR. About the intention.

Chairman PROXMIRE. Who stands where? The Air Force has one view and the CIA has another?

Mr. PROCTOR. I think the best way to pose the question is whether the Soviets would use the Backfire in the intercontinental role. I think we all agree that it is ideally suited for this peripheral role which I described earlier. The real difference is whether it was also built with the intention of carrying out an intercontinental role.

Chairman PROXMIRE. And how do you line up that? How does the Air Force and the CIA line it up?

Mr. PROCTOR. The CIA is saying the aircraft is primarily built for a peripheral role, it has a capability for an intercontinental mission.

Chairman PROXMIRE. And that is undisputed?

Mr. PROCTOR. Yes.

Mr. BUSH. Everybody agrees in the intelligence community on that.

Mr. PROCTOR. On the capability. But that is not flying supersonic all the way. It would be subsonic most of the way to conserve fuel, with very short period of supersonic dash.

I don't know how each of the services line up.

Mr. FIRTH. The Air Force is the only one that feels that it probably would be deployed in some intercontinental role, in addition to the peripheral role. They agreed that it is primarily peripheral.

Chairman PROXMIRE. How about DIA?

Mr. FIRTH. DIA is somewhere in between the CIA and the Air Force. That is the way to describe it.

Mr. BUSH. But, Senator, I think we are leaving the wrong impression. I don't think that there are divisions in the intelligence community on what this thing is capable of doing.

Chairman PROXMIRE. What you are saying is that you agree on everything except what the intention seems to be.

Mr. PROCTOR. That is correct.

Chairman PROXMIRE. And there you are skeptical as to whether they intended to use it as an intercontinental bomber?

What is your estimate of the number and composition of the Soviet bomber force for 1980 and 1985?

Mr. PROCTOR. I don't have that here. I can give you some of our estimates for the record.

Chairman PROXMIRE. You say you can give it for the record.

Mr. PROCTER. For the record, for 1980. I don't know whether there are estimates for 1985, but I will provide them if they exist.

[The following response was subsequently supplied for the record:]

THE SOVIET HEAVY BOMBER FORCE

We project that the Soviet heavy bomber force by 1980 will consist of about 80 aircraft, excluding tankers. Most of these will be Bears, carrying air-to-surface missiles. For 1985, we project about the same number of aircraft, some of which could be of a new type.

Chairman PROXMIRE. Congressman Brown.

Representative BROWN of Michigan. No questions.

Chairman PROXMIRE. Mr. Bush, and gentlemen, I want to thank you very much for an excellent briefing, as usual. It is most helpful and responsive. As I say, I do hope that we can declassify this as soon as possible. And I realize that you have to exercise great caution here, and you should.

At the same time, I think we all agree that the more we can make available, the better understanding there will be for debate on the floor and on the part of the public as to what we ought to do. So, we hope we can declassify as much as possible. Thank you very much.

Mr. BUSH. Mr. Chairman, on the question of the Backfire, I still am not happy with the way I think this is coming out on the differences concerning Soviet intentions between CIA and the Air Force, or any body else in the community. I have community responsibilities.

Chairman PROXMIRE. I simply picked up the assertion that there were some differences of opinion in the intelligence community on the Backfire bomber, and I wanted to know what that was. And I think we have made that clear; that there is no difference of opinion on its capability; there is no difference, of opinion on the number; there is no difference of opinion on how rapidly it is being produced; and, there is a difference of opinion simply on what it would seem to be like, given the nature of the bomber.

In other words, it is extremely effective in its peripheral mission. On an intercontinental mission it is less effective.

Mr. BUSH. To the degree that there is a difference, it could be on intention. I think the record is coming out a little more black and white than these differences may be. And I don't know how to satisfy the record or you, sir, on that. But I have been somewhat involved in some discussion on this thing.

Chairman PROXMIRE. Is there a national intelligence estimate on the positions taken by the Agency on this?

Mr. BUSH. No, sir, not recently.

Representative BROWN of Michigan. Would the gentleman yield?

Chairman PROXMIRE. Yes, indeed.

Representative BROWN of Michigan. What indicators of intention are there that are reliable at this point in time on the Backfire?

Mr. BUSH. Well, construction at forward bases would be one, or readiness of forward bases, or ability to make forward bases ready to receive the Backfire from which it could do a round-trip mission. It is a very hard thing to estimate.

Mr. FIRTH. I think that is correct.

Mr. BUSH. That is the only point I wanted to make.

Representative BROWN of Michigan. Is it fair to say that what you are both doing is making a calculated guess without much to go on?

Mr. BUSH. When we get into intention, unfortunatly that is what we are dealing with, yes, sir.

Mr. FIRTH. And there is agreement on the intention that it is primarily a peripheral weapon at this point. And that is where the deployment has been so far.

Chairman PROXMIRE. Very good. Thank you very much.

[Whereupon, at 12:10 p.m., the subcommittee adjourned, subject to the call of the Chair.]

ALLOCATION OF RESOURCES IN THE SOVIET UNION AND CHINA—1976

TUESDAY, JUNE 15, 1976

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

The subcommittee met, pursuant to notice, at 3:25 p.m., in room S-146, the Capitol, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senator Proxmire and Representative Brown of Ohio.

Also present: Richard F. Kaufman, general counsel; and George D. Krumbhaar, Jr., minority counsel.

OPENING STATEMENT OF CHAIRMAN PROXMIRE

Chairman PROXMIRE. The subcommittee will come to order.

The JEC has been a steady consumer of intelligence estimates for a number of years. Our interests have concerned substantive rather than organizational or operational matters. We have performed special inquiries into the economics of the Soviet Union and China and have published a considerable body of literature on those subjects. The intelligence agencies have contributed to this effort and last year the Defense Intelligence Agency presented testimony for the first time in our hearings on the allocation of resources in the Soviet Union and China.

This afternoon we are happy to have before us Gen. Sam V. Wilson, the newly appointed Director of the Defense Intelligence Agency. General Wilson, you may go ahead with your statement and then we have some questions. If you care to delete the reading of any portion of your statement, in the interest of time, it will be printed in the record in full as if read.

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STATEMENT OF LT. GEN. SAMUEL V. WILSON, U.S. ARMY, DIRECTOR, DEFENSE INTELLIGENCE AGENCY, ACCOMPANIED BY ROBERT A. SMITH, SENIOR CIVILIAN ANALYST, SOVIET-WARSAW PACT DIVISION, MILITARY FORCES/SAL BRANCH OF THE INTELLIGENCE RESEARCH CENTER; NORBERT D. MICHAUD, SENIOR SOVIET MILITARY ECONOMIC ANALYST IN THE RESOURCES AND INSTALLATIONS DIVISION OF THE INTELLIGENCE RESEARCH CENTER; JAMES MILLER, CHIEF, BALLISTIC MISSILE SYSTEMS BRANCH, WEAPONS SYSTEMS DIVISION, DIRECTORATE OF SCIENCE AND TECHNOLOGY; AND FRANCIS J. ROMANCE, SENIOR CIVILIAN, EASTERN DIVISION, INTELLIGENCE RESEARCH CENTER

General WILSON. Fine, Senator.

I would like to note, if I may, please, that I have brought with me four people who are specialists or experts in their respective fields to a degree beyond myself; Mr. Robert Smith, who is Senior Civilian Analyst, Soviet-Warsaw Pact Division, Military Forces/SAL Branch of our Intelligence Research Center.

James Miller, on my left, who is Chief of Ballistic Missile Systems Branch, Weapons Systems Division, Directorate of Science and Technology.

Sitting on my right is Mr. Norbert Michaud, Senior Military Economic Analyst, and handling some Vugraphs which I think may be useful to you, is Mr. Francis J. Romance, Senior Civilian, Eastern Division, Intelligence Research Center, China military capabilities specialist and one of our leading Sinologists, whom I have had the pleasure to work with before.

Senator, what I propose, subject to your pleasure, is that I simply use this statement as a driving vehicle for today's session, but that I pause at any point for your questions. And if you will permit me, there will be certain areas where I would like to add a bit of commentary by way of illustration or as a footnote to expand or further illuminate a given point.

Chairman PROXMIRE. Normally what we do is to have the statement in full and then questions. But if any question comes to mind in the course of your presentation, I will interrupt.

General WILSON. Good, sir. Your pleasure—whichever way you would prefer to do it.

HIGHLIGHTS OF THE DEFENSE INTELLIGENCE AGENCY'S 1975 TESTIMONY

Mr. Chairman, to set the scene for today's presentation, I would like to review briefly the highlights of the testimony last year by my predecessor. As you may recall, there were three major subjects of interest at that time—Soviet and People's Republic of China military expenditures, the intelligence community's track record in predicting Soviet trends and developments, and significant past and projected changes in Soviet forces.

With respect to defense expenditures, it was stated that Soviet outlays over the past decade had been considerably higher than the fig-

ures carried in community estimates. This assessment was on the magnitude of the Soviet procurement programs and force deployments as well as on some new information that had recently become available. It was estimated that the Soviets were spending at least 15 percent of their GNP, and probably more, on military matters. DIA also cautioned this committee about costing information developed by the community on the People's Republic of China military effort, notably in the area of estimated dollar cost of military procurement. Additionally, a brief summary was given of the military assistance being provided to nonalined nations by the U.S.S.R. and People's Republic of China.

The second major subject of interest—that of the intelligence community's estimating track record—focused on the three topics specified in advance by this committee: ICBM's, MIRV's, and aircraft carriers. Our conclusion was that the intelligence community has tended to overestimate the pace at which programs are introduced in the early stages of deployment and to underestimate the ultimate magnitude of Soviet programs. In the case of ICBM's, the levels of operational missiles were initially overestimated, but the actual order of battle in later years far outstripped our projections. This same estimating bias occurred with respect to MIRV's; we overestimated the initial date when the Soviets would deploy MIRV's and underestimated the portion of the ICBM force that now appears to have been MIRV'd. Similarly, regarding helicopter and aircraft carriers, we expected initial deployment sooner than it occurred.

The third major subject covered in DIA's presentation last year had to do with past and projected changes in Soviet forces, notably aggregate force levels. As was pointed out, the most dramatic change was the growth in strategic offensive forces—a growth that brought the combined total of intercontinental strategic offensive delivery vehicles to just over 2,400. Supplementing the buildup in the U.S.S.R.'s offensive arsenal has been a steady upgrading of strategic defense. This development holds clear implications for U.S. retaliatory capabilities in that it lowers the chances of successful penetration of Soviet aerospace. Significant changes have also been occurring in the U.S.S.R.'s general-purpose forces. These changes reflect Moscow's determination to have a broad range of military capabilities to cope with, and take advantage of, the shifting patterns of international events. In all three categories—strategic offensive, strategic defensive, and general-purpose forces—we predicted for the most part continued high force levels. The various projections remain valid.

My comments today, Mr. Chairman, fall into two broad areas. The first has to do with Soviet defense expenditures and encompasses two recently published estimates prepared by CIA with some collaboration by DIA. The second area has to do with the military forces of the U.S.S.R. and the People's Republic of China. In accordance with guidance received from this committee, I will be emphasizing technology levels and other qualitative aspects of the various military components.

Soviet Defense Expenditures

I would now like to discuss Soviet defense expenditures and touch on the DIA role in the development of these estimates. In his recent appearance before this committee, Mr. Bush provided you with a

detailed review of the latest dollar estimate of Soviet defense programs. (See Vugraph II–1 on p. 83.)

As you will recall, this approach shows that when Soviet forces are viewed in terms of what it would cost the United States to procure, equip, and operate similar forces, Soviet outlays are now 42 percent greater than our own. DIA has participated in the preparation of this estimate and provides much of the data used in this building block approach which begins with a detailed identification of the Soviet force structure and other defense activities. [Deleted.] (See Vugraph II–2 on p. 84.)

When constant 1974 dollar costs are applied to observed Soviet defense programs it shows that in 1975 they were equivalent to $114 billion compared to $80 billion for U.S. defense expenditures.

Representative BROWN of Ohio. Why do you use 1965 as a base? I don't want to interrupt unduly, but in case we get called away.

General WILSON. As we go further back in time some of our data, largely because of shifts and changes in the estimating methodology, became rather fuzzy. Thus, if we push back beyond 1965 too far we don't have the kind of data or methodology that would give us comparability in our techniques.

Would you like to comment further on that, Mr. Michaud?

Mr. MICHAUD. We always try to keep to a 10- to 11-year period just as a frame of reference. The further back you go the more difficult it is to make comparisons.

General WILSON. The dollar estimate is a conscientious effort to give an appreciation of the magnitude of Soviet defense activity in familiar terms and in force configurations used by the DOD. One must bear in mind that this estimate only claims to include those defense activities which we are able to identify at a particular point in time. These dollar values do not purport to represent what the Soviets have spent, but rather what their forces would cost us to support. One problem area in the methodology is that the bulk of the intelligence which supports this estimate is primarily historical in nature and the estimate tends to run behind the actual implementation of changes in policy, equipment, or operational procedures. (See Vugraph II–3 on p. 84.)

Even with these problems inherent to the methodology, the dollar trends over a period of time are helpful as an indication of what is occurring in specific areas. For example, even though value estimates cannot be used to determine relative military effectiveness, an increase in expenditure trends over time is an indication that in some way capabilities are increasing. The upward trend in Soviet weapons procurement shown in this chart is very steep and the amount of equipment that is produced in excess of replacement needs contributes to military stockpiles and adds to capabilities. (See Vugraph II–4 on p. 85.)

As a result of increasing Soviet weapons procurement and decline on the U.S. side, the dollar costs of Soviet programs are now expected to exceed us by some 80 percent.

ECONOMIC BURDEN

Although the dollar estimate provides these comparisons, it cannot be used to calculate the burden military programs placed on the Soviet economy. A separate estimate costed in rubles is developed in an at-

tempt to gain an appreciation for defense outlays as seen by Soviet leaders. Over the past year a joint DIA–CIA task force has gained some additional insight on this aspect of the problem. Earlier efforts to do this were limited by many intelligence gaps which unfortunately led CIA to produce an unrealistically low estimate. This situation changed in 1975 [deleted].

This was the first time such information had ever become available. When this information was combined with other evidence which had been accumulating, such as higher ruble prices for Soviet weapons, it became clear that ruble outlays for defense were far greater than some had realized and that a new estimate was badly needed. (See Vugraph II–5 on p. 85.)

The initial results are summarized on this graph which shows two bands indicating the estimates for the years mentioned. The lower band goes from 40 to 45 billion rubles in 1970 and moves to the 50 to 55 billion ruble range in 1975 as measured in constant 1970 rubles. The lower band is a more conservative one in that it is limited to Soviet military programs comparable with U.S. program element definitions. The upper band going from 45 to 50 billion rubles for 1970 to about 55 to 60 billion for 1975 covers a broader definition. It includes a number of additional military operated activities such as civil defense and the space program which we believe Soviet decisionmakers would include under defense. This new estimate implies that the Soviet burden of defense ranged between 11 and 13 percent of Soviet GNP, or almost twice what had been previously estimated and about three times the announced defense budget of 17 billion rubles. Our analysis of this subject shows that defense spending has been increasing at least as fast as the 4- to 5-percent annual growth in GNP. Certain key national accounts strongly suggest the possibility of an even higher growth rate in defense and a rising defense burden. We believe that a greater effort has to be made to reconcile the direct costing results with direct information on Soviet defense spending such as that provided by the statements made by Brezhnev and Kosygin.

I would be glad to give you examples of such statements if you wish.

This new estimate is a big step in that direction but more needs to be done. We still do not have a full appreciation of the extent to which the Soviet economy defers to the military. Dissidents keep telling us that the burden is even higher than 13 percent of GNP, but quantifying these visceral notions is a formidable task. For instance, we know that military industries receive preferential treatment in materials, services and in the recruitment of skilled labor to include special housing and other benefits as inducements. The industrial enterprises also pay the salaries of reservists who are called to active duty for training. Most of the preinduction military training is conducted at the expense of the State educational system or through the voluntary clubs sponsored by DOSAAF, a youth training organization, to whom members pay dues. We know that in the area of transportation and communications there are defense-related costs not charged to the military. There are also direct and indirect subsidies and benefits that accrue to military personnel in the areas of medical care, housing, and pensions of which little is reflected in the financial flow associated with defense. So the task before us is to ascertain the full burden of defense and to find the full measure of their past commitment. We are

certain that at the 55 to 60 billion ruble range our estimate is a far more accurate assessment of the total defense burden than has ever been the case before. Further investigation may show even this to be a conservative range. DIA and CIA are continuing their joint research into this subject and as we identify additional defense related expenditures they will be incorporated into future estimates.

Chinese Military Expenditures

I would now like to turn my attention to the People's Republic of China. As in the case of the Soviet Union, virtually no information is published by the Chinese regarding defense outlays and again we must rely on indirect methods of deriving cost estimates. However, in the case of China our resources have only allowed us to dollar cost the procurement portion of their military effort. [Vugraph 6 is classified material.]

This table shows what it would cost the United States to produce comparable military equipment. These figures do not include costs for R.D.T. & E., facilities, personnel, or operations and maintenance. Chinese military procurement costs increased in 1975 after remaining relatively constant during the previous 3 years. Annual procurement rose from an [deleted]. China's history of military production makes it difficult to judge whether the 1975 increase in procurement costs is a temporary phenomenon or the beginning of a long-term trend. It appears that the pattern will be largely determined by two factors—the scale of new or expanded aircraft production and the rate at which the Chinese deploy their strategic offensive missile forces. It is significant, however, that for the next several years, as they begin to replace obsolescent equipment with more modern systems, Chinese procurement costs can be expected to grow even if production in terms of numbers of units does not increase.

Now, that, Mr. Chairman, completes the statement which is focused purely on the economic aspects of the problem of your interest. I have further material which relates to the modernization of the Soviet and Chinese forces which I can defer while you ask questions, or I can go into it at this time, as you prefer.

Chairman Proxmire. It is up to Congressman Brown, too, of course. I would prefer to start questions now, and then to the extent that we don't cover some of this, perhaps you could highlight some of the remaining part.

General Wilson. And if we do not get to this I might suggest——

Chairman Proxmire. And your full prepared statement will be printed in the record in full.

General Wilson. Yes, sir.

[The prepared statement and an addendum to the prepared statement of General Wilson follow:]

Prepared Statement of Lt. Gen. Samuel V. Wilson

I. INTRODUCTION

Mr. Chairman, to set the scene for today's presentation, I would like to review briefly the highlights of the testimony presented last year by my predecessor. As you may recall, there were three major subjects of interest at that time—Soviet and PRC military expenditures, the intelligence community's track record in predicting Soviet trends and developments, and significant past and projected changes in Soviet forces.

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The second major subject of interest—that of the intelligence community's estimating track record—focused on the three topics specified in advance by this Committee: ICBMs, MIRVs, and aircraft carriers. Our conclusion was that the intelligence community has tended to overestimate the pace at which programs are introduced in the early stages of deployment and to underestimate the ultimate magnitude of Soviet programs. In the case of ICBMs, the levels of operational missiles were initially overestimated, but the actual order of battle in later years far outstripped our projections. The same estimating bias occurred with respect to MIRVs; we overestimated the initial date when the Soviets would deploy MIRVs and underestimated the portion of the ICBM force that now appears to have been MIRVd. Similarly, regarding helicopter and aircraft carriers, we expected initial deployment sooner than it occurred.

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II. CIA'S CURRENT ESTIMATES OF SOVIET DEFENSE EXPENDITURES

A. Estimated Soviet defense expenditures

I would now like to discuss Soviet defense expenditures and touch on the DIA role in the development of these estimates. In his recent appearance before this committee, Mr. Bush provided you with a detailed review of the latest dollar estimate of Soviet defense programs. (See Vugraph II–1 on p. 83.) As you will recall, this approach shows that when Soviet forces are viewed in terms of what it would cost the U.S. to procure, equip and operate similar forces, Soviet outlays are now 42 percent greater than our own. DIA has participated in the preparation of this estimate and provides much of the data used in this building block approach which begins with a detailed identification of the Soviet force structure and other defense activities. [Deleted.]

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When constant 1974 dollar costs are applied to observed Soviet defense programs it shows that in 1975 they were equivalent to $114 billion compared to $80 billion for U.S. defense expenditures.

B. Dollar methodology

The dollar estimate is a conscientious effort to give an appreciation of the magnitude of Soviet defense activity in familiar terms and in force configurations used by the DOD. One must bear in mind that this estimate only claims to include those defense activities which we are able to identify at a particular

point in time. These dollar values do not purport to represent what the Soviets have spent, but rather what their forces would cost us to support.

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C. Ruble estimate

Although the dollar estimate provides these comparisons, it cannot be used to calculate the burden military programs placed on the Soviet economy. A separate estimate costed in rubles is developed in an attempt to gain an appreciation for defense outlays as seen by Soviet leaders. Over the past year a joint DIA-CIA task force has gained some additional insight on this aspect of the problem. Earlier efforts to do this were limited by many intelligence gaps which unfortunately led CIA to produce an unrealistically low estimate. This situation changed in 1975 [deleted]. This was the first time such information had ever become available. When the source's information was combined with other evidence which had been accumulating, such as higher ruble prices for Soviet weapons, it became clear that ruble outlays for defense were far greater than some had realized and that a new estimate was badly needed. (See Vugraph II–5 on p. 85.) The initial results are summarized on this graph which shows two bands indicating the estimates for the year mentioned. The lower band goes from 40 to 45 billion rubles in 1970 and moves to the 50 to 55 billion ruble range in 1975 measured in constant 1970 rubles. The lower band is more conservative one in that it is limited to Soviet military programs comparable to U.S. program element definitions. The upper band going from 45 to 50 billion rubles for 1970 to about 55 to 60 billion for 1975 covers a broader definition. It includes a number of additional military operated activities such as civil defense and the space program which we believe Soviet decision makers would include under defense. This new estimate implies that the Soviet burden of defense ranged between 11 and 13 percent of Soviet GNP, or almost twice what had been previously estimated and about three times the announced defense budget of 17 billion rubles. Our analysis of this subject shows that defense spending has been increasing at least as fast as the 4 to 5 percent annual growth in GNP. Certain key national accounts including national income accounts, budgetary accounts and the industrial value accounts strongly suggest the possibility of an even higher growth rate in defense and a rising defense burden. We believe that a greater effort has to be made to reconcile the direct costing results with direct information on Soviet defense spending such as that provided the [deleted] and statements made by Brezhnev and Kosygin.

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D. Chinese defense expenditure estimate

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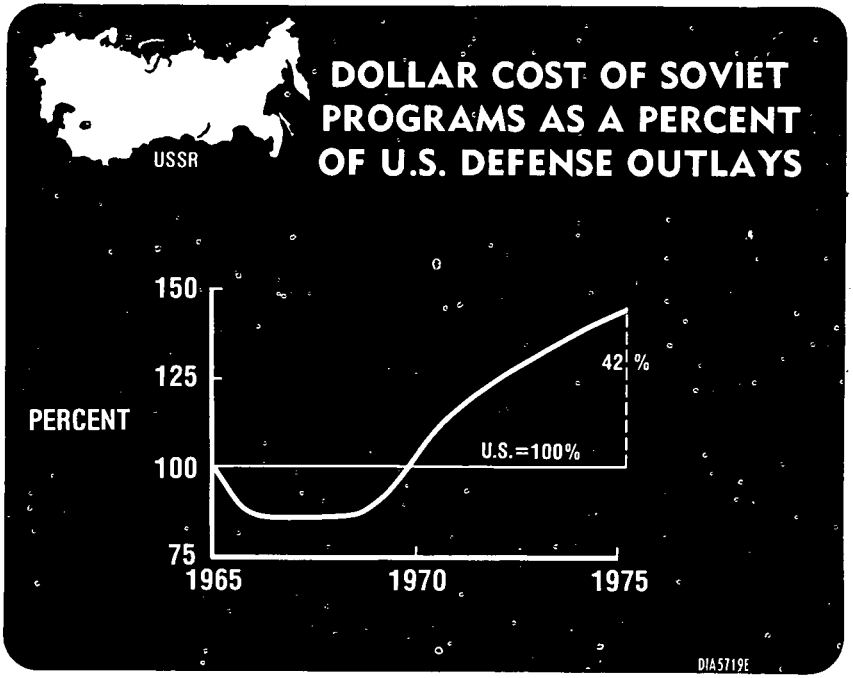
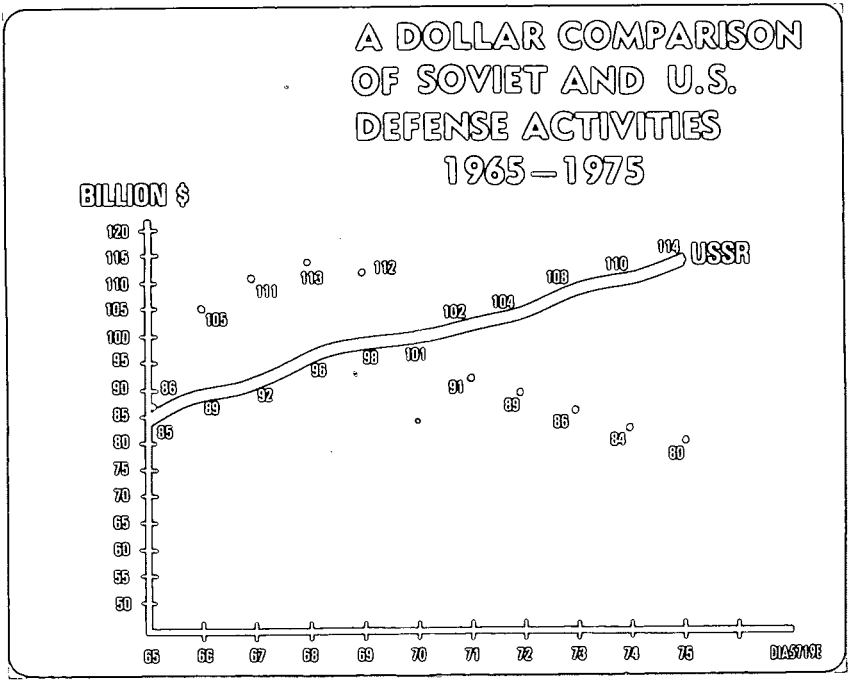


VUGRAPH II–1



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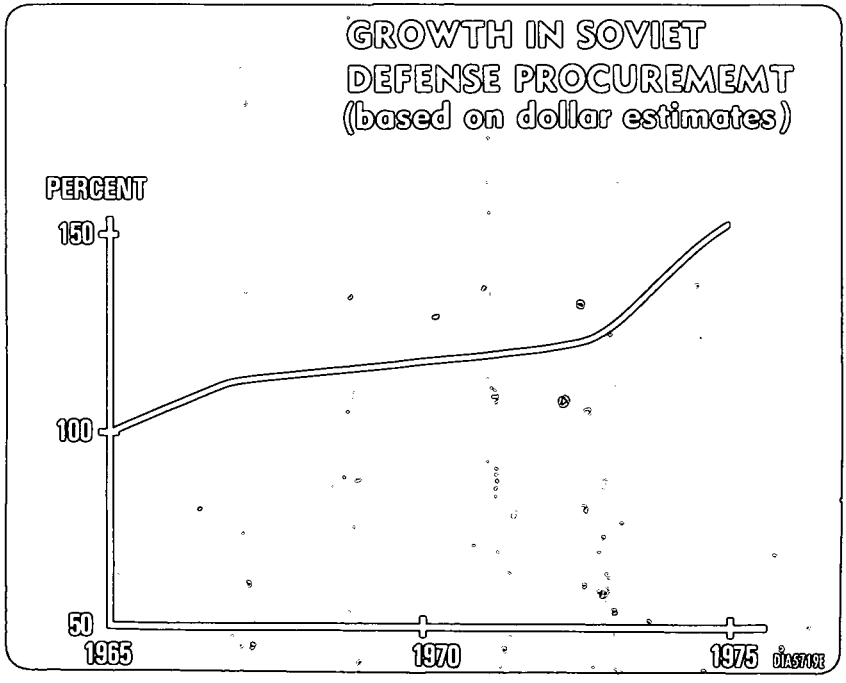

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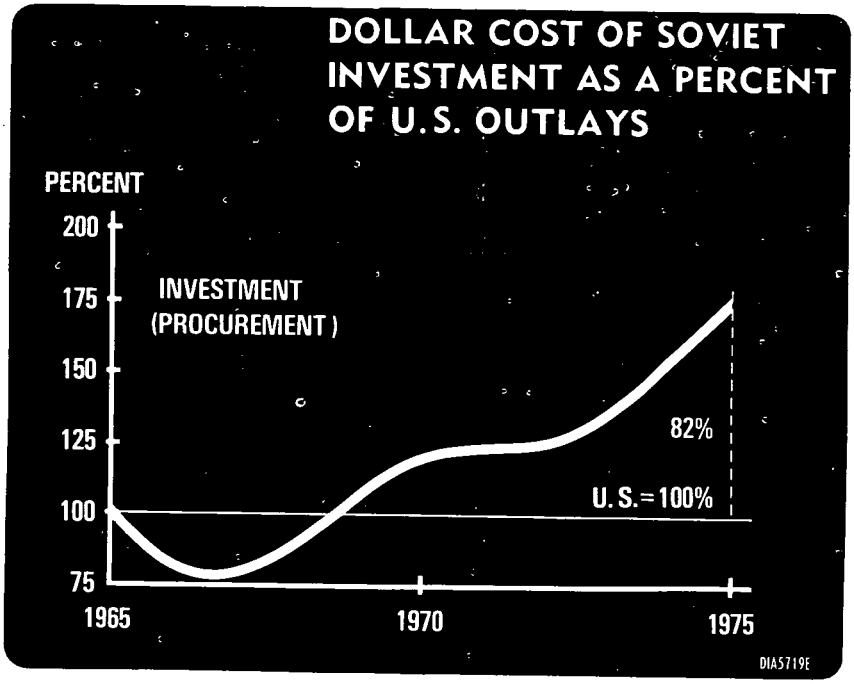
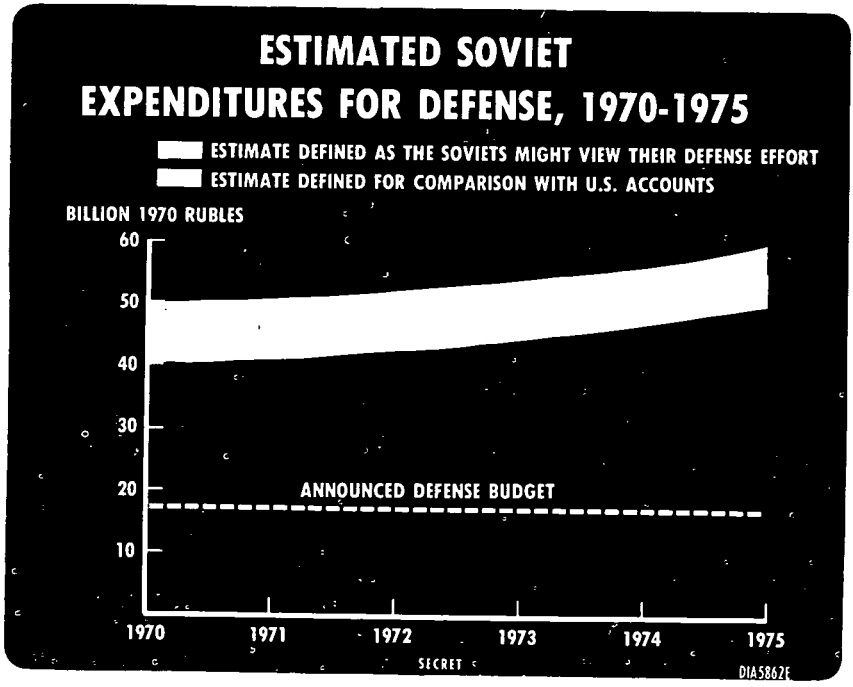


VUGRAPH II–4



VUGRAPH II–5

III. U.S.S.R. MODERNIZATION PROGRAM

The kinds of improvements that are taking place in Soviet forces—cover the entire spectrum of weapons systems—from the very complicated strategic systems down to hand-held antiaircraft missiles for use by infantrymen.

I would like to address some of the more important aspects of this threat, and I would like to do so against a series of charts that will show the overall force levels and then address the qualitative improvements that we are observing in the various segments of the forces. First, I will cover the strategic systems and then take a look at the general purpose forces.

(Vugraph III–1 is classified material.) [Deleted]. During this year, developments in strategic attack forces reflected a dramatic shif ttoward increased sophistication in Soviet strike capabilities. (See Vugraph III–2 on p. 89). The Soviets made considerable progress in the modernization of their ICBM force with the deployment of three missiles with heavier payloads and more accurate MIRVed systems.

In some cases the throwweight has been greater than the system they will replace and the accuracy of these systems is down to about [deleted] of a nautical mile providing increased hard target kill capability. These missiles are being deployed in upgraded silos that are at least [deleted] more survivable than the older installations. To compound the problem even further they have [deleted] more ICBMs [deleted] in various stages of development.

(See Vugraph III–3 on p. 89.) During the past year their SLBM fleet maintained a constant upward surge. Ballistic missile submarine construction continued unabated, passing the 740 tube lower Salt limit. (Vugraph III–4 is classified material.) Older ICBMs are being dismantled to provide a trade-off for continued construction of legenthened Delta Class submarines; and it appears that they will proceed to the 950 Salt limit.

(Vugraph III–5 is classified material.) [Deleted] testing is under way on [deleted] new SLBMs. [Deleted.]

[Deleted.]

These new missiles will provide greater flexibility in targeting, improved accuracy and an increase in the number of deliverable warheads.

(Vugraph III–6 is classified material.) The medium and intermediate range missile force targeted against Eurasia is ready for a major modernization program.

(Vugraph III–7 is classified material.) Initial deployment [deleted] of the new Backfire bombers to strike units during the past year has rounded out the picture of qualitative upgrading of all legs of the strategic attack triad.

(Vugraph III–8 is classified material.) On the defensive side of the picture the Soviets are continuing to place major emphasis on qualitative upgrading of the individual systems. Improvements and/or R&D are reflected for all of the force elements. In air defense they are continuing to emphasize improvements in both the low and high altitude levels. [Deleted.] And both high and low altitude fighter interceptor aircraft are entering the inventory. The early warning radar network is being expanded with additional radars and R&D continues on new ABM systems.

Some specific examples of force modernization are indicated here.

(Vugraph III–9 is classified material.) [Deleted] over-the-horizon radar systems are being deployed in the USSR.

(Vugraphs III–10 and III–11 are classified material.)

[Deleted.]

The Soviets have not neglected their general purpose forces in this general upgrading that has been and continues to take place. Far from it.

(Vugraph III–12 is classified material.) For example, the Soviet navy is continuing to place heavy emphasis on production of missile equipped ships and aircraft, and on development of an initial fleet carrier capability. [Deleted] and sustained overseas operations have expanded from the Mediterranean to points on the African coast and the Indian Ocean.

Their navy has developed into a balanced force—one which can operate in conditions of nuclear or nonnuclear war, and which can serve as an instrument of policy in peacetime. Over the past few years, the naval modernization program has stressed improvements in anti-strike fleet and antisubmarine warfare activity and technology as depicted here.

(Vugraph III–13 is classified material.) The Kiev class guided missile ASW aircraft carrier will add a new dimension to Soviet naval operations. It will give the Soviets a capability for sea-based tactical air support of their surface

forces. Classified by the Soviets as an ASW platform, the Kiev is expected to have a complement of [deleted] V/STOL fighters and helicopters. The ship will have surface-to-air and surface-to-surface missiles, guns, and several antisubmarine systems. Kiev will provide both air defense and strike support at long distances from the Soviet land mass. There are three ships of this class and the first is on shakedown in the Black Sea. The second will become operational in [deleted] and the third in [deleted].

(See Vugraph III–14 on p. 90.) The Kara Class guided-missile cruiser shown here is among the most heavily armed ships, for its displacement, in any navy. It carries the SA–N–4 [deleted] SA–N–3 [deleted] and the SS–N–14 ASW cruise missile which has a [deleted] range. It has extensive gun armament, variable depth sonar, torpedo tubes, ASW rocket launchers, and carries an ASW helicopter. This is the world's largest gas turbine powered naval combatant and is equipped to carry out a variety of missions. It is capable of operating with a large measure of autonomy, in that she is not dependent on other ships for self-protection.

(Vugraph III–15 is classified material.) Improvements continue in the general purpose submarine force, also. The Victor II, a variant of the earlier units of this class was introduced four years ago and continues to be deployed at a rate of [deleted] per year. The Victors are the most effective ASW unit in the Soviet inventory. Their [deleted] knot capability underwater makes them the fastest attack submarines in production anywhere.

(Vugraph III–16 is classified material.)

[Deleted.]

Soviet submarine designs have demonstrated a concerted R&D effort, with certain priorities in mind. Their speeds are greater than ours, [deleted]. It is expected that follow-up designs will continue to demonstrate qualitative improvements.

(Vugraph III–17 is classified material.) Although the numerical strength of the tactical air forces has remained at the 4,900 level, force capabilities for both offensive and defensive operations have improved markedly with the continued deployment of four new aircraft and improved ordance for these aircraft. [Deleted.]

Now emerging on the scene is an entirely new family of variable-geometry-winged aircraft for both fighter and fighter-bomber roles.

(Vugraph III–18 is classified material.) The Flogger is the principal new counterair system. A ground attack version has also been identified.

(Vugraph III–19 is classified material.) Another new variable geometry system, [FITTER C] is now appearing in strength in Eastern Europe. [FITTER C] represents a quantum advance in ground attack capability over earlier FITTER designs dating from the early 1960's.

(Vugraph III–20 is classified material.) The Fencer represents an entirely new trend in Soviet fighter-bomber design, incorporating a second crew member—a weapons system officer. Fencer is assessed as a sophisticated, deep-penetration system most likely intended for the attack of key point targets.

(Vugraph III–21 is classified material.) Generic to any tactical air operation is a capable reconnaissance system. The Foxbat, in its reconnaissance variant, provides a much improved capability for tactical reconnaissance including provision for photography, sigint, [deleted].

(Vugraph III–22 is classified material.) This Vugraph shows the additional area coverage that accrues with the introduction of these newer aircraft compared to the older Fitter A.

(Vugraph III–23 is classified material.) During the past year Soviet ground forces continued to stress improvements in mobility, and firepower in units throughout the USSR. Some order of battle changes took place with the addition of two more motorized rifle divisions and the activation of an airborne training division. Regimental tank strength and tactical missile equipment has increased substantially during the past two years in both Western Russia and along the Chinese border.

To support these units and provide for maximum mobility they have developed and are deploying a series of armored personnel carriers. Some are wheeled, some have tracks, but all are armored.

(See Vugraph III–24 on p. 90.) The BMP amphibious armored infantry combat vehicle is a revolutionary fighting vehicle and is very impressive. It is fitted with a 73-mm main gun [deleted]. A Sagger antitank guided missile with a maximum range of 3,000 meters; and a coaxial machine gun. It also has firing ports for the eight infantrymen carried inside. Thus, they don't have to dismount to fight.

(Vugraph III–25 on p. 91.) The airborne amphibious combat vehicle or BMD is smaller but similar to the BMP. It is found only in airborne divisions. It has a 73-mm gun and a Sagger antitank missile and can transport at least six riflemen. It can be dropped by parachute. Both the BMP and the BMD are well suited for the Soviet blitzkrieg concept.

(Vugraph III–26 is classified material.) The upgrading of the ground forces is most noticeable when one considers the volume of new equipment that is entering the forces. This slide shows the level of nuclear firepower that is available to support operations both in Europe and the Far East—over [deleted] launchers at the present time.

(Vugraph III–27 is classified material.) This slide shows the level of tanks and artillery that are available.

A steady and continued improvement took place across-the-board in division equipment inventories during the past year. New tanks and self-propelled artillery are replacing older models and a dramatic increase has taken place in mobile surface-to-air missile systems in the past two years.

(Vugraph III–28 is classified material.) The Soviets have upgraded their towed artillery pieces and have begun to replace selected towed weapons with self-propelled weapons. [Deleted.]

The introduction of self-propelled versions of the 122-mm and 152-mm guns in 1974, provides the Soviets with artillery weapons which have excellent mobility and reduced vulnerability for the crew. The major feature of the self-propelled weapon is its ability to keep up with tanks and armored personnel carriers on cross-country moves.

The 122-mm self-propelled is amphibious and being deployed to motorized rifle regiments, primarily on a one for one replacement; [deleted] the 152-mm self-propelled, with a range in excess of [deleted] is being deployed to replace towed weapons in artillery regiments of both tank and motorized rifle divisions.

The significance of the new self-propelled systems does not indicate a substantial increase in weapon technology but an evolutionary process of weapon development. The U.S. still maintains an edge in self-propelled weapon technology; however, this lead is slowly being diminished.

(Vugraph III–29 is classified material.) The newest Soviet tank, the T–72, is estimated to be the culmination of a series of prototypes.

[Deleted.]

(Vugraph III–30 is classified material.) To protect the ground forces from air attack, the Soviets have deployed a family of air defense systems which includes both guns and missiles. They have emphasized mobility and have incorporated sophisticated electronics. Some of the newer members of the family include the ZSU–23–4 self-propelled antiaircraft gun which mounts four stabilized 23-mm guns and an integral fire control radar all mounted on a single tracked vehicle. Found in proximity of the ZSU–23–4 is the SA–9 Gaskin. (See Vugraph III–31 on p. 91.) The SA–9 mounts four infrared guided missiles on a self-propelled wheeled amphibious vehicle. [Deleted.]

[Deleted.]

[Deleted.] The ZSU–23–4 and the SA–9 provide motorized rifle and tank regiments excellent low-altitude air defense protection from high performance aircraft.

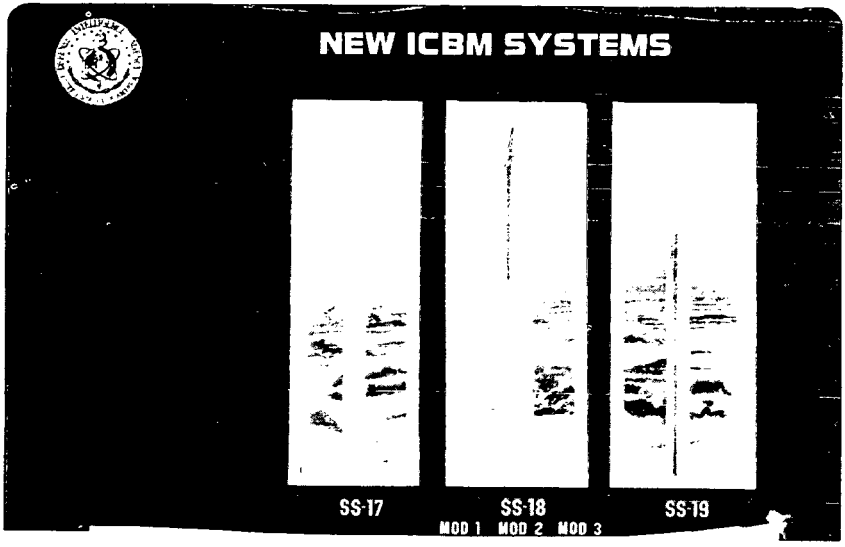
(See Vugraph III–32 on p. 92.) The SA–7 Grail is a hand-held, heat seeking manportable SAM. It is effective against helicopters and slow flying aircraft at low altitude.

(See Vugraph III–33 on p. 92.) Another new ground force air defense system is the semiactive homing SA–6 (Gainful) surface-to-air missile. Three of these integral rocket-ramjet missiles are mounted on a tracked vehicle and relies on a radar system which is mounted on a separate tracked vehicle. [Deleted.]

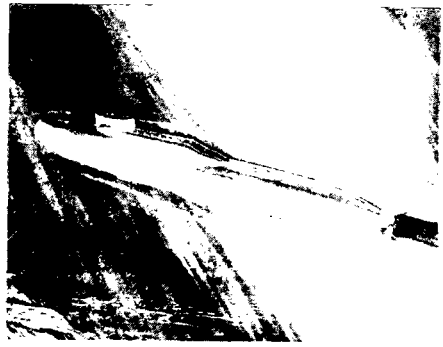
[Deleted.] The SA–6 provides low- and medium-altitude protection to the Soviet division.

(See Vugraph III–34 on p. 93.) The newest air defense system is the SA–8. The SA–8 mounts four Gecko missiles, and the acquisition and tracking radars on a self-propelled wheeled amphibious vehicle. The highly complex electronics of this system reduce its vulnerability to ECM. This system would provide excellent low- and medium-altitude protection against high performance aircraft.

[Deleted.]

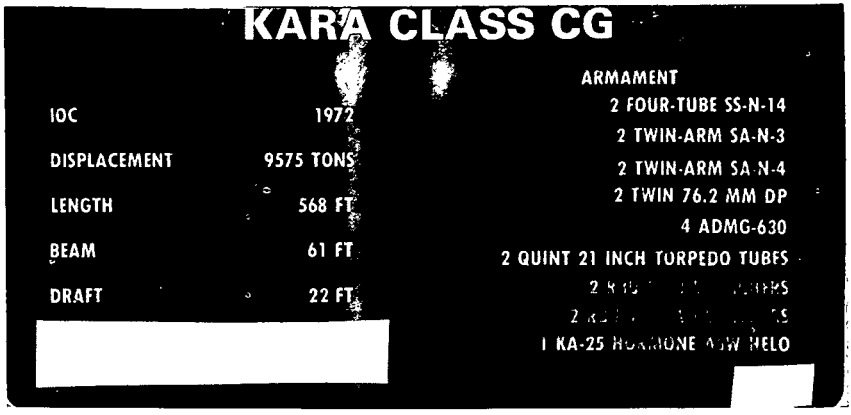


VUGRAPH III–2

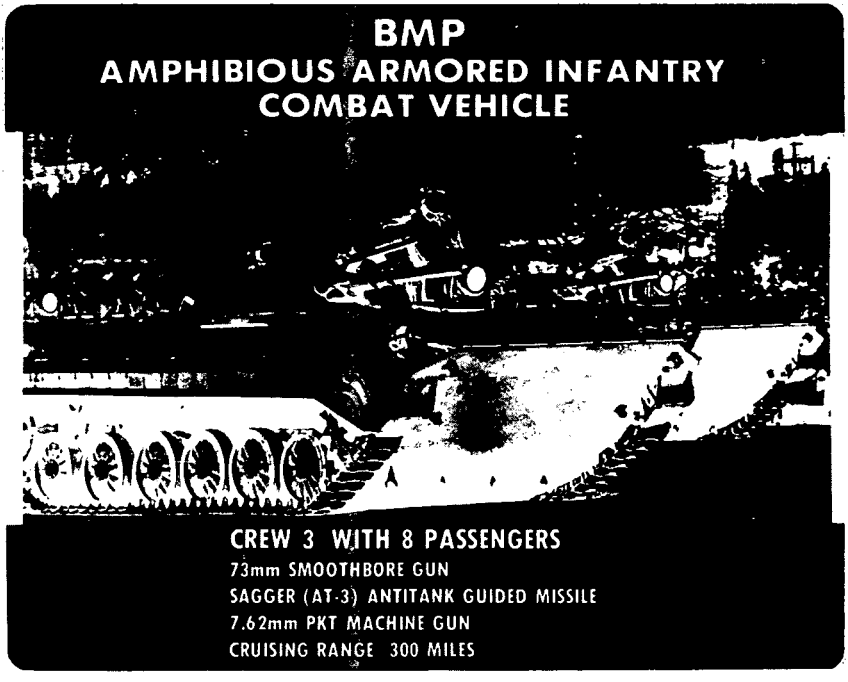


OPERATIONAL	1973
LENGTH	449 FT
BEAM	39 FT
ARMAMENT	12-SS-N-8

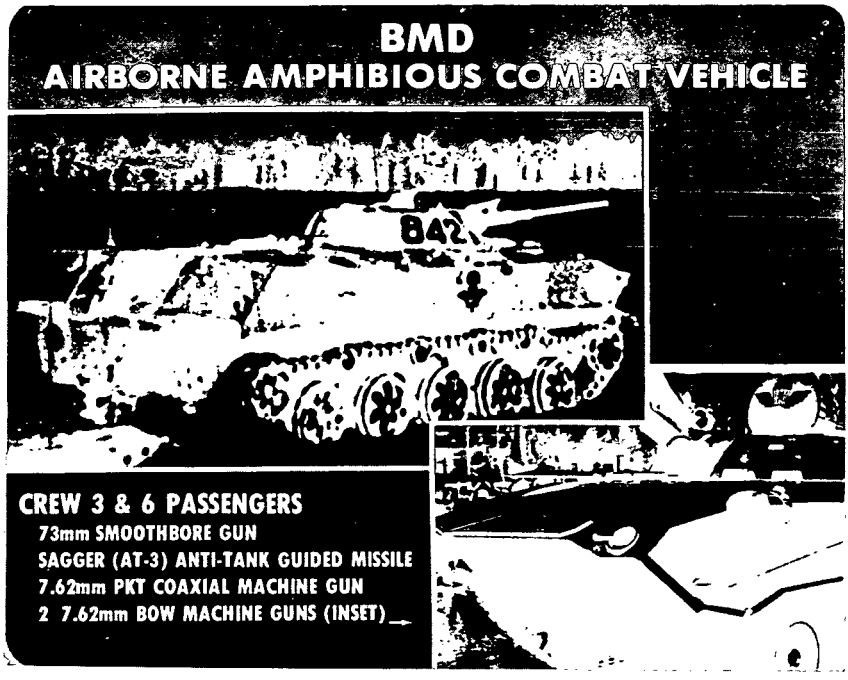
VUGRAPH III–3



VUGRAPH III–14

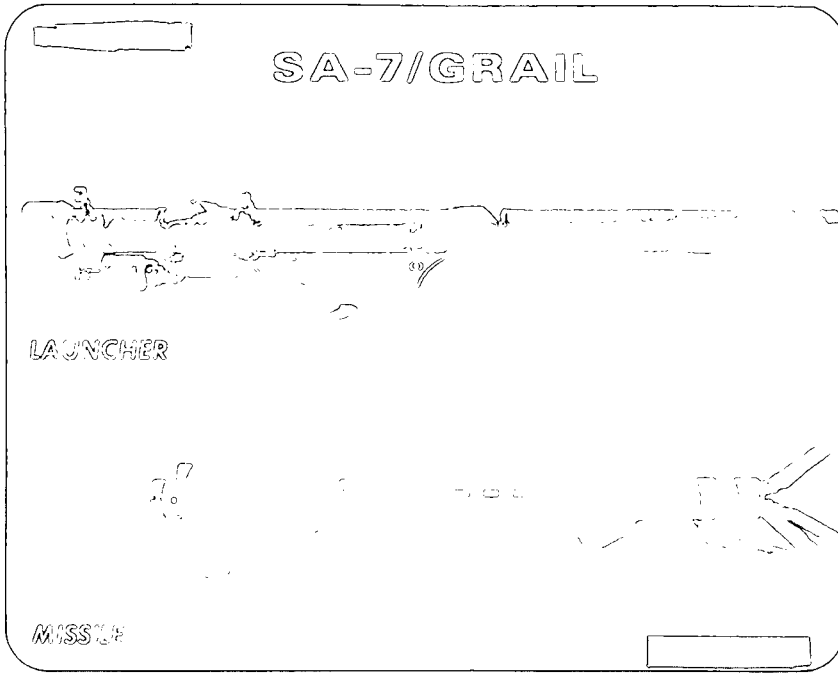


VUGRAPH III–24

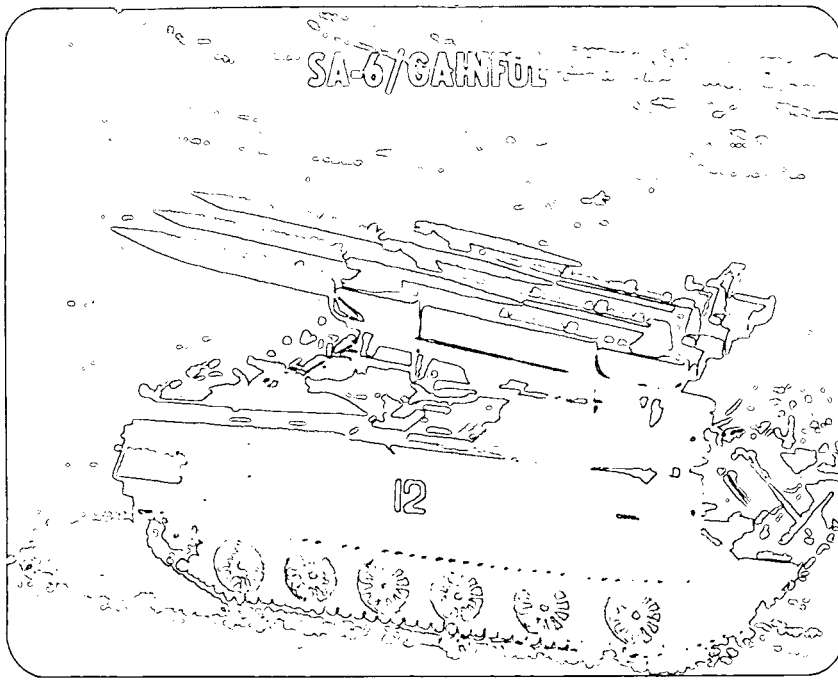


VUGRAPH III-25

VUGRAPH III-31



VUGRAPH III-32



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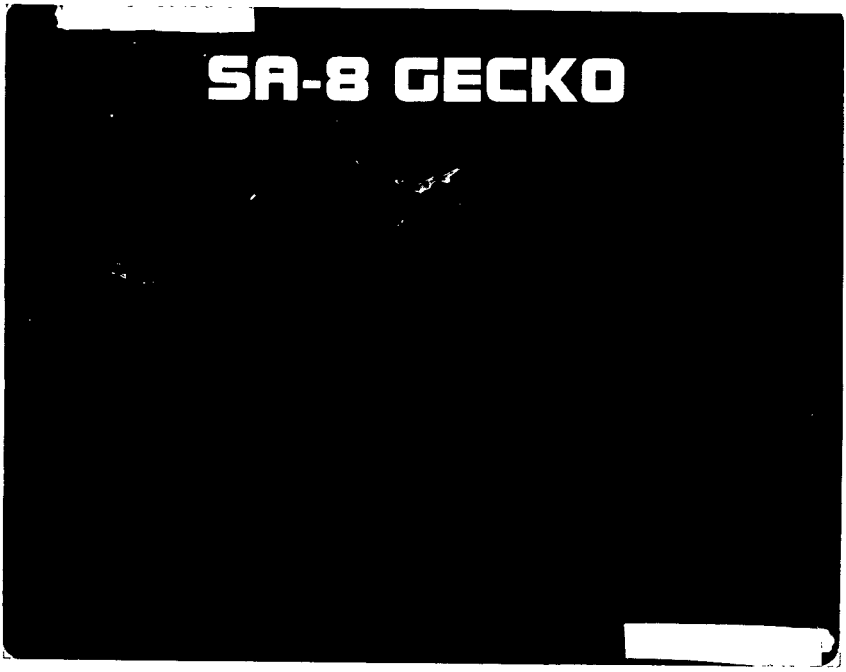

VUGRAPH III–34

IV. CONCLUSION

What I have attempted to do in the last few minutes is to give you a feel for some of the more important types of equipment the Soviets are buying with their defense ruble. The modernization of their forces, which is progressing at an unrelenting pace, is clearly reflected in our estimates of their defense expenditures.

For example, the ruble valuation of outlays for the strategic rocket force reflects the procurement and deployment cycles associated with the addition of the new ICBM's. On the other hand, spending for the Air Force has been more gradual, increasing about 10 percent annually, and the Air Defense Forces (PVO) seem to have peaked in the late 1960s and have been receiving less emphasis during the 1970s.

Outlays for naval forces have grown at 4 to 5 percent annually. Much of this has been for improved ballistic missile submarines and associated missile systems.

The ground forces continue to consume about a quarter of defense outlays, the single largest share of the total. This allocation has remained fairly steady. In absolute terms the outlays for ground forces have slowly increased, reflecting the gradual growth in manpower and material, and the sophistication required in today's weapon systems.

Mr. Chairman, I realize that my discussion of Soviet forces has not included the kind of direct comparisons with U.S. forces that this committee desired. Our position remains the same as was expressed last year. These comparisons are not properly the function of defense intelligence analysts but rather should be addressed to the proper elements of OSD. Such comparative assessments are traditionally made, however, in the annual posture statements of the Secretary of Defense and the chairman, Joint Chiefs of Staff, to which we contribute the threat portion.

Sir, that concludes my presentation.

ADDENDUM TO PREPARED STATEMENT OF LT. GEN. SAMUEL V. WILSON

PRC Military Capabilities

A. FORCE MODERNIZATION AND EFFECTIVENESS

Peking has continued to stress a gradual and methodical program of force modernization, rather than pursue programs which could yield rapid quantitative improvements for its military establishment. Increasing PRC interest in the purchasing of western equipment and technology in the last few years is, however, a significant departure from previous efforts toward self-reliance. It also reflects Peking's desire for the acquisition of advanced technology at a minimum investment of time and resources. Several results of China's long term military modernization program have become apparent over the past year:

Strategic Forces

[Deleted.]

General Purpose Forces

Ground Forces:
[Deleted.]
Naval Forces:
Development and production of a new class [deleted] guided missile frigate.
Out of area operations by PRC oceanographic research ships.
Air Forces:
[Deleted.]
Purchase from Britain of the Rolls Royce Spey jet engine and associated production technology.

Such developments are all indications of Peking's desire to improve the quality of its armed forces. We can expect further qualitative increases as the Chinese continue their research and development and expand their purchase of foreign military technology.

[Deleted.] However, China's determination to develop a military force to support its bid for major power status is expected to continue. [Deleted.]

Strategic Offensive Forces

There is little chance that in the foreseeable future China will become a superpower in the class of the United States and the Soviet Union. China's strategic nuclear strike capability rests on a small force of bombers and missiles. Although this force is limited primarily to peripheral strikes around China's borders, the PRC's first ICBM [deleted] will provide a very limited capability to project nuclear weapons at greater distances. With an estimated [deleted] nm range, [deleted] cannot reach targets in the continental United States, but can reach targets in European Russia excluding Moscow. [Deleted.] Development of a [deleted] range ICBM, [deleted] expected to become operational before [deleted]. The [deleted] system, [deleted] will be capable of attacking all of the CONUS and the Soviet Union. [Deleted.]

[Deleted.]

The projected Chinese Submarine Launched Ballistic Missile (SLBM) is expected to be [deleted] comparable in size to the early US POLARIS, [deleted].

[Deleted.]

The TU–16/badger is the basic weapon system in the PRC strategic bomber force. It is capable of carrying a normal 6,600 pound payload to an unrefueled radius/range of 1,650/3,200 nm. This range is sufficient to reach targets in the USSR as far as the Urals from forward bases in China, though the capability to penetrate heavily defended areas is poor. The Badger's primary mission is assessed to be delivery of conventional weapons, with a secondary mission of nuclear strike against regional targets. The TU–4/bull could also be used to drop a nuclear weapon, although its primary role is believed to be the delivery of conventional munitions. The Bull can carry a normal payload of 10,000 pounds to a radius/range of 1,800/3,300 nm. [Deleted.]

[Deleted.]

The third bomber in the PRC inventory is the IL–28/Beagle. It can carry a 6,600 pound payload to a range/radius of 550/1,000 nm and may have a regional nuclear role in addition to its tactical conventional weapons role.

The Chinese Short Range Ballistic Missile (SRBM), [deleted] Medium Range Ballistic Missile (MRBM), and [deleted] Intermediate Range Ballistic Missile (IRBM) also have regional nuclear roles. From currently deployed sites, the 600

nm [deleted] and 1,500 nm [deleted] can reach targets in the eastern USSR, peripheral countries, and US forces in the Far East. The 350 nm SRBM is probably intended for use as a theater support weapon.

[Deleted.]

Strategic Defensive Forces

The extensive Chinese air defense force, though dependent on obsolescent weapons and suffering from deficiencies in command and control, is capable of providing defense against limited attacks by China's neighbors. However, these defenses would be ineffective against a large-scale Soviet or U.S. bomber attack.

[Deleted.]

The [deleted] Surface-to-Air (SAM) system is based on the Soviet SA–2 system and is capable of providing defense against [deleted].

The minimum altitude performance of the system is [deleted]. There are some indications that a [deleted]. Because of the small size of the force as well as its lack of sophistication, Chinese SAM defenses are not adequate to cope with the modern air forces of the U.S. or Soviet Union.

China relies heavily on antiaircraft artillery (AAA) to supplement its SAM and interceptor forces.

[Deleted.]

General Purpose Forces

Ground Forces:

[Deleted.]

The infantry-heavy army is aided in its defense of China by border defense, internal defense, garrison troops, as well as a large paramilitary force.

[Deleted.]

The PRC Army is basically an infantry force. Tanks and armored personnel carriers are not nearly as numerous in the Chinese army as in the Soviet and US armies. [Deleted.]

PRC army soldiers are well trained for conventional ground operations as well as guerrilla-type warfare and have strong political indoctrination and motivation.

Naval Forces: China will not become a naval power capable of successfully opposing the United States or the Soviet Union within the next decade. U.S. and Soviet technological advances and open ocean experience are such that a widening of the already significant gaps in naval capabilities between themselves and the PRC will probably take place. PRCN open ocean operations are limited by inadequate shipborne air and submarine defense systems and lack of a demonstrated underway replenishment capability. Most of China's Navy consists of small combatants suitable for close-in coastal defense. [Deleted.]

[Deleted.]

The available major surface combatants extend coastal defensive firepower seaward. The majority of these have been designed or modified to carry the [deleted] surface-to-surface cruise missile. The [deleted] similar to the Soviet Styx missile, [deleted].

The emphasis accorded general purpose submarine construction will provide the PRC Navy an increase of its naval strength and a potential to project its power to greater distances. In most circumstances, however, these units would probably be used in the relatively shallow waters of China's broad continental shelf, rather than in deep water areas, [deleted]. The development of nuclear powered submarines has been slow, [deleted].

Air Forces:

[Deleted.]

China's tactical air force is presently deployed to provide in-country [deleted], ground support.

[Deleted.] Initially, tactical air superiority could probably be provided over China, but the air forces would suffer heavy losses due to the performance limitations of both its ground attack and interceptor aircraft. The duration of this local air superiority would be dependent upon several unknown factors, such as the size and sophistication of attacking forces, the battle area, and logistical support available to both forces.

[Deleted.]

The Military Transport Aviation force consists of a mixture of aircraft produced in the USSR, UK, France, the United States, and China. This force could be augmented by the civil aviation fleet which is a similar conglomeration, but

which includes some newer aircraft such as Boeing 707s, British Tridents, and Soviet IL–62s.

[Deleted.]

B. FORCE LEVELS

Ballistic Missiles

We currently estimate (Figure 1) that the Chinese have [deleted] operational [deleted] MRBMs and [deleted] operational [deleted] IRBMs. Additionally there is a slight chance that [deleted] SRBMs of the obsolete Soviet SS–2 type are deployed, but there is little evidence to support this.

[Deleted.]

China's ballistic missile programs are not progressing as fast as previously forecast. This seems to be a result of both economic constraints and technical difficulties. It now appears that programs which would yield quick but limited results are being slowed, and that China is spending her limited resources on research and development of systems that could significantly improve her strategic capabilities in the next decade.

As previously mentioned, China's first ICBM, a limited range missile [deleted].

[Deleted.] We estimate that by 1980, the PRC will have deployed about [deleted] of these missiles.

The Chinese have been testing a full-range, CONUS-capable ICBM [deleted].

FIGURE 1.—PRC Ballistic Missiles

(Fig. 1 is classified material.)

[Deleted.] We also estimate that by [deleted] the Chinese could have deployed [deleted] operational ballistic missile submarine (SSBN), which may be armed with up to [deleted] missiles.

Strategic Bomber Force

Since 1966 (Figure 2) the Chinese strategic bomber force has evolved from a miniscule force composed of 13 TU–4/Bull (a Soviet copy of the US B–29A) and 2 TU–16/Badger, to a small force of some [deleted] operational Badgers and [deleted] Bulls. [Deleted.] In addition, since 1974 a small, but growing, number of IL–28/Beagle tactical bombers [deleted] in 1975), have been assumed to be available as strategic weapon carriers, [deleted]. There is no evidence during this period of attempts by China to seek a strategic bomber capability comparable to that of the US or USSR.

[Deleted.]

[Deleted]. The bomber force would still essentially be regional in nature, capable of only limited-range attacks across the Soviet borders in defended areas. In addition, by 1981, some [deleted] Beagle tactical bombers are projected to be available for strategic, nuclear missions, providing the Chinese with more, though less capable nuclear carriers with a lower resource allocation.

FIGURE 2.—PRC Strategic Bomber Force

(Fig. 2 is classified material.)

Interceptor Force

During this period the interceptor force (Figure 3) has been the area of major resource investment in air assets by the PRC, bearing a direct relationship to the threat from the Soviets as perceived by the Chinese. Production of the MIG–19/Farmer continues to be the principal active aircraft program in China. [Deleted.]

[Deleted.]

The current interceptor force is composed of some [deleted] MIG–15/Fagot and MIG–17/Fresco, [deleted] MIG–19s, and [deleted] MIG–21s.

Although the projected force structure does not reflect any marked increase in total numbers through 1980, the force is expected to improve qualitatively in both aircraft and weaponry. The phase-out of the older MIG–15 and MIG–17 will be offset by the continued deployment of the Chinese-produced MIG–19, and the introduction of a projected new PRC interceptor during [deleted]. By 1981, the force is expected to be composed of some [deleted] MIG–15/MIG–17, [deleted] MIG–19, [deleted] MIG–21s and [deleted] of the new PRC interceptor.

In December 1975 the PRC signed a contract with the Rolls Royce Company of England for the military version of the Spey-202 engine (used in the British F–4). Under this contract, Rolls Royce will provide the technology to produce the en-

gine; assistance in the construction of a production plant; and 50 complete engines. China has a great need for the Spey because it represents a quantum leap in engine technology for them.

[Deleted.]

SAM's

China has only one SAM system (Figure 4), the [deleted] (basically a copy of the Soviet SA–2 system) with current totals of some [deleted] launchers at [deleted] operational sites concentrated around Peking, a few other key urban-industrial areas, and weapons development centers. Force levels which grew slowly through the late 1960s and early 1970s essentially peaked in [deleted] with about [deleted] launchers at some [deleted] sites. The drop in midyear launcher levels in [deleted]. This development may have been related to training or equipment modification. Since then new sites have become operational, and launcher levels are again on the upswing. For the next several years we project further increases in launcher totals as we expect China to extend [deleted] defenses to protect some important areas not now defended by SAMs.

FIGURE 3.—PRC Interceptor Force

(Fig. 3 is classified material.)

FIG. 4.—PRC SAM Launchers

(Fig. 4 is classified material.)

We believe China will eventually develop a low-altitude SAM system, but initial deployment of such a system would not be expected before about [deleted].

AAA

That China (Figure 5) is very much concerned with potential air attacks is evident from the substantial and growing numbers of AAA weapons deployed for air defense. Current force levels include an estimated [deleted] guns ranging in caliber from 37–mm to 100–mm, plus large quantities [deleted] of 12.7–mm and 14.5–mm heavy machine guns. [Deleted.]

[Deleted.]

[Deleted.] We project continued growth in Chinese AAA forces over the next few years and then a leveling off with relatively stable numbers by about [deleted].

Air Surveillance and Control Radar Forces

The Chinese air defense network (Figure 6) presently consists of approximately [deleted] ground-based radars deployed at some [deleted] sites throughout the country. [Deleted.]

[Deleted.] For the future we project an increase in both radars and radar sites. Over the years, however, we expect the emphasis will become directed more toward upgrading the individual sites by the addition of radars with improved capabilities, and in greater numbers, at the sites.

FIGURE 5

(Fig. 5 is classified material.)

FIGURE 6.—PRC Air Defense Radars

(Fig. 6 is classified material.)

Ground Forces

The current estimated total of 135 main force combat divisions (Figure 7) includes 121 infantry, [deleted] armor, and [deleted] airborne/airlanded. There are an additional [deleted] divisions in the regional forces. Most of the increases during the period are believed to have occurred between 1969 and 1972. It shows later increases, however, these units were probably in being prior to the time they were accepted in the order of battle. [Deleted.] The Chinese have been been modernizing the divisions currently deployed, [deleted] and increasing the number of service support units.

Production of older model tanks continues, [deleted].

[Deleted.]

Our best estimate projects a continuation of the emphasis on qualitative improvements and forecasts [deleted] increase in the number of main and regional force divisions. Evidence of Chinese intentions regarding mechanization is limited, [deleted].

[Deleted.]

FIGURE 7.—PRC Combat Divisions

(Fig. 7 is classified material.)

Major Surface Combatants

The PRC Navy's major surface combatants (Figure 8) have increased over the past decade and currently number about [deleted] units. The majority of them are equipped with a surface-to-surface missile system, [deleted] which is estimated to be similar to the Soviet Styx. In the future, we expect more emphasis to be placed on destroyer escort-size units than on the larger destroyer classes. A total of [deleted] major combatants are projected by 1981.

General Purpose Submarines

The PRC general purpose submarine force (Figure 9) currently and over the next decade, will consist primarily of diesel-powered units. Test and evaluation of nuclear propulsion are expected to be slow. [Deleted.] The majority of the force is comprised of Romeo and Whiskey Class units.

We estimate that the force will continue to increase in numbers from about [deleted] units in the current inventory to about [deleted] by 1981. A few additional nuclear powered units may be produced but series production of SSNs is unlikely until [deleted].

FIGURE 8.—PRC Major Surface Combatants

(Fig. 8 is classified material.)

FIGURE 9.—PRC General Purpose Submarines

(Fig. 9 is classified material.)

Tactical Air Forces

The PRC tactical air forces (Figure 10), [deleted] in size during the period 1966–1976. In 1966, the force was composed almost exclusively of tactical bombers, whereas today the MIG–15/Fagot and F–9/Fantan fighter-bombers constitute more than half the force. The general trend during these years, both in numbers of aircraft and in training patterns, point to an increasing Chinese concern for improving attack capabilities. [Deleted.]

[Deleted.]

The projected force shows a continuation, [deleted] of the PRC's emphasis on surface attack capabilities, with some continued production and deployment of Fantan ground attack fighter expected through [deleted]. Production of a follow-on, native-designed aircraft is not expected until the [deleted.] By 1981, the bulk of the force will be composed of [deleted] Fantans; in addition, some [deleted] MIG–15s, along with some [deleted] IL–28/Beagle tactical bombers, will still be in the force. Some of these latter are expected to have a nuclear-delivery role in support of the strategic bomber force, but will likely continue to be subordinated to tactical air units.

FIGURE 10.—PRC Tactical Air Forces

(Fig. 10 is classified material.)

Military Transport Aviation

The PRC military air transport force (Figure 11) is composed of a mixture of aircraft produced in the Soviet Union, Great Britain, the United States, France, and China. About 95 percent are older, short-range propeller-driven aircraft. A similar percentage of the helicopter force consists of older, Soviet-designed MI–4/Hound, designated Whirlwind by the Chinese.

The current force consists of some [deleted] medium range and [deleted] short range transports, along with [deleted] heavy and [deleted] medium helicopters. In addition, some 145 multiengine civil transports assigned to the Civil Aviation Administration of China (CAAC) are also readily available for military or national emergency uses.

With the exception of the Whirlwind helicopter, the PRC is currently not producing any transport aircraft, and resorts to foreign purchases for needed additions to its inventory.

In general, the projection reflects a continuation of the relatively low priority, through 1981, for acquisition of military transports. In addition, indigenous production of transport aircraft is not expected during this period. Similarly, indigenous helicopter production and/or acquisitions from foreign sources are also projected to have a relatively low priority during the next five years.

FIGURE 11.—PRC Military Transport Aviation

(Fig. 11 is classified material.)

The PRC, however, is likely to continue purchasing some foreign-produced transports and helicopters through the [deleted]. These acquisitions may be additional numbers of aircraft types already in the inventory or may be aircraft totally new to the Chinese. By 1981, the number of medium transports is expected to reach [deleted] while light transports will likely number some [deleted]. The helicopter force is projected to increase [deleted] through 1981. [Deleted.]

PUBLICATION OF 1975 HEARINGS

Chairman PROXMIRE. Before I ask any questions there is a matter I would like to clarify. News reports have carried stories implying or directly accusing this subcommittee of timing the release of last year's testimony to coincide with consideration of the Defense Appropriations bill. This criticism has been attributed to your predecessor, General Graham. I would just like to say for the record that any such allegation is false. I believe officials of DIA will confirm that the transcript was processed for final printing without any unnecessary delays on our part. In fact, there was good cooperation on this by the staffs of the DIA and the committee staff. If you or your associates care to respond to that we would be happy to have you do so.

General WILSON. May I say only that I appreciate your consideration in making such a statement. And I also assure you that I have no question, no reservation whatsoever in my mind that such intent was ever harbored. As far as I am concerned, it is a nonissue.

DOLLAR COST METHODOLOGY OF SOVIET DEFENSE EXPENDITURES

Chairman PROXMIRE. As I understand your remarks about the dollar cost methodology, you believe the dollar trends of Soviet military spending over a period of time are helpful as an indication of what is occurring in specific areas, that an increase over time may mean capabilities are increasing. You also said the dollar estimate is a conscientious effort to give appreciation of the magnitude of Soviet defense activities. Is that a fair summary of your views?

General WILSON. I believe it is, Senator.

Chairman PROXMIRE. Last year General Graham had some rather harsh criticism of the dollar cost methodology. Does your statement represent a shift in the DIA's views on this issue, and was General Graham not speaking for DIA in that part of his testimony?

General WILSON. May I speak in somewhat amplification of that overall question?

Chairman PROXMIRE. Yes, sir.

General WILSON. There may be some difference between my own personal views in that area and the views of General Graham. One

may choose which views he prefers. I consider the CIA effort to have been a very conscientious endeavor over time to provide us with some way of gauging the dollar value in Soviet defense expenditures. I feel that the CIA analysts were assiduous in trying to apply the basic yardstick of intellectual integrity as they were coming up with these estimates. There is one flaw in my view—and I have discussed this in very friendly fashion with these people. It is that as one moves through the analytical process, using this methodology, one must frequently make assumptions where the analyst, who is endeavoring to be careful, will safeside his assumption, will be very conservative in the assumptions he makes.

While in each specific instance a conservative assumption is wise, when you aggregate the effect of a series of conservative assumptions over a period of time in the analytical process, the aggregate effect of these assumptions sometimes is to pull you down and away from perceived reality. I consider that this is the major reason for the original CIA estimates being low. I should note, however, that they themselves have been the first to adjust when they receive new information.

So I think that the methodology of using dollars as long as one understands exactly what we are doing, and is not misled by the fact that assumptions have to be factored in—in other words, if one does not go for broke or take all this as the gospel, is helpful.

Consequently I would simply say that I represent in my own personal views, I think, a difference from the views expressed by General Graham last year. He was running DIA at the time, and I am running it now.

Therefore, I would suggest in response to your question that there is a minor but perhaps perceptible shift in this area.

Chairman PROXMIRE. Then you think that dollar comparisons are useful, but you have to be careful about the assumptions that are involved here.

General WILSON. That is correct.

Chairman PROXMIRE. And in this particular case you feel confident in these assumptions, you think that they are fairly solid, and that you can accept what these dollar comparisons show with very considerable assurance? I just am grasping for a way that you can be assured.

General WILSON. I see exactly what you are after. I would say that one can react to what we have today with somewhat greater assurance, though still not complete assurance. I think there has been improvement, and we are closer to the mark. But there are still some obscure areas that we have not yet addressed effectively.

INEFFICIENCY IN THE SOVIET MILITARY

Chairman PROXMIRE. According to the CIA, the new analysis of Soviet spending in rubles doesn't indicate that the Soviets have more weapons or more manpower than previous estimated, but rather that the costs of these programs are greater than was originally estimated. In other words, there is more inefficiency in the Soviet military than was thought to be the case. Do you agree with that or not?

General WILSON. Not necessarily I agree with what you have said, sir, up to the last point. The fact that the cost was greater I don't think automatically means that there is a higher level of inefficiency. I think there is efficiency in the Soviet's economic system.

Chairman PROXMIRE. It doesn't automatically mean that there is a higher level of manpower or weapons capability either, does it?

General WILSON. Not necessarily.

Chairman PROXMIRE. We don't know how much of the increase is inefficiency, maybe none of it, in which case then we would know that this is a reflection of capabilities. On the other hand, is it not possible that much of it, conceivably that all of it, is a matter of their not being as productive?

General WILSON. This is largely correct. However, I think one should add also that there is the possibility the materials being used are actually in scarcer supply, or have a higher value than we thought. I don't think it automatically means that they are more inefficient than we previously thought.

SOVIET MILITARY R. & D.

Chairman PROXMIRE. What is your view of Soviet investment in military technology? Are they spending more than we are in defense, R.D.T. & E., and if so, by how much roughly?

General WILSON. I want to give you a view I can live with and support. I would like also when I finish to consult my associates.

I believe, from the evidence we have available, that we see more R. & D. activities over a wider scale, broader scope, in more areas on the Soviet side than we presently are engaging in. It is significantly greater than ours. I would have to either defer to my associate here, or go back and do a fairly detailed analysis to give you some kind of percentile as to how much more they are spending.

I do think that there is an important footnote here to be made, if you will permit me. And that is that we in the United States are the beneficiaries of a great deal of useful research and development which takes place in the private sector. We indirectly benefit from it. So this is one of the imponderables that somehow has to be considered in arriving at a more objectively precise answer to your question. But I don't think we have ever grappled with that from our standpoint in order to come up with an effective comparison.

Chairman PROXMIRE. Overall your conclusion is that they are spending more, roughly 10 percent, 50 percent—can you give us any feeling on the figures—for R.D.T. & E.?

General WILSON. My own feeling, subject to checking this out, is that they are spending more in this area, at least 50 percent more in this area than we. I want to qualify that as a preliminary response to you, without checking into it in any detail.

Chairman PROXMIRE. Do your associates agree with that?

Mr. MICHAUD. May I comment on that.

You know this is one of the most difficult areas that we have of comparison. And there are different ways of doing it. You can look at the input side of R. & D. or the program or output side of R. & D. Or, for that matter, we can look at the increase in capability. So there are different ways in which we can look at the products of R. & D.

As far as the input is concerned, there is no question that they are putting more into it in terms of the number of scientists, for instance, and materials. We used to estimate Soviet R. & D. in relation to the United States in terms of input. And on that score it was much more, they were much more costly in terms of the input.

On the output side the CIA has concluded, and we concur, that they do spend somewhat more. Their study would show programs something over 20 or 30 percent. But this is a very difficult thing to measure. We are looking now at the dollar cost of the product which they get out of R. & D. But the product is a very nebulous sort of thing. So we are talking in this area perhaps of an error of 20 or 30 percent on either side. So this is a very difficult thing to assess.

Chairman PROXMIRE. I realize that the only thing you can measure with any precision at all is the input.

Mr. MICHAUD. The key to the question is, How much capability have they added through R. & D., and is it effective?

Chairman PROXMIRE. That is right.

Mr. MICHAUD. You can hardly put a price tag on it without having some sort of market mechanism, or putting it in a narrow context and say, would this add anything to our capability.

Chairman PROXMIRE. Before I yield to Congressman Brown of Ohio I want to say that one of the products in this is that we are more productive that the Soviet Union, our agriculture is literally more than 10 times theirs, when you consider the number of people on their farms and ours, and the production that we have, and certainly in some industries where our technology is more advanced. They may be ahead of us in some other respects. But it is very, very hard to put together.

I am glad you mentioned the facts that we do have some input from private, or at least nonmilitary technology, that is helpful to us militarily.

Congressman Brown of Ohio.

SPECIFIC AREAS OF SOVIET R. & D.

Representative BROWN of Ohio. Would it be helpful to know what areas they are concentrating on versus what areas we are concentrating on in the research and development and evaluation programs?

Mr. MILLER. If you take a look at the Soviet R.D.T. & E. program you will find it is extremely broad. I can run through very quickly just a few of the highlights of it.

We find an extremely strong metallurgical program. They are coming up with very high strength metals, new metal processes. Their welding processes are very active. In the CBR area we have an extreme program going in there for developing new agents, new defenses, new control mechanisms, and these kinds of things. The military missile program is extremely broad.

The same thing is true in the SLBM area. We have [deleted] SLBM's in R. & D. [Deleted.]

In the aircraft area it is the same way. We have a fairly extensive program there. They are also going forward with their civilian aircraft programs to develop more capability, airlift capability.

And their space program is extremely advanced [deleted]. And those are just a few of the brief highlights of the extent of their R.D.T. & E. program that is going on.

SOVIET MISSILE DEFENSE AND CIVIL DEFENSE

Representative BROWN of Ohio. In the area of missile defense I didn't quite know how to read your comment about the vulnerability

of the Soviet Union to missile attack. Are you referring to defensive systems that go up and knock down the missile, or are you referring to the depth of their civil defense, including shelters and that kind of stuff?

General WILSON. What part of my text are you referring to?

Representative BROWN of Ohio. It was early in your comment. I think it was on the second or third page.

General WILSON. You mean the introduction at the top it says: Clear implications for U.S. retaliatory capabilities"?

Representative BROWN of Ohio. Yes. "The chance of successful penetration of Soviet aerospace." That in effect talks about penetration of aerospace. But really what I am asking is, I understand that the Soviet efforts at civil defense has been much more advanced than ours for some time.

General WILSON. There are two points that would emerge in response, sir. One, the Soviets have been vulnerable and still remain so to a low-altitude air attack by manned bombers. [Deleted.] This is one of the principal points that we had in mind with this particular passage in my statement. Second, in the civil defense area I must admit that this is an area that we do not have a good hold on. I can make some general remarks from personal observation and from fragmentary reports. There are divergent views held in the community [deleted].

Additionally [deleted] evidence of improved shelters around factory complexes. Some of those have been fairly recent.

The Soviets continue in their open press to stress the importance of civil defense. However, we do not have a good and comprehensive feel for the subject. Indeed it is being addressed right now as one of the areas which we feel we should know more about and where we ought to be able to respond to very logical questions such as the one you have raised.

SOVIET ATTITUDE TOWARD FIRST STRIKE

Representative BROWN of Ohio. Do you have any feeling that there has been reflected in their expenditures, either in terms of volume or type, the areas in which they have chosen to make their investment, a shift in Soviet attitude with reference to the question of first strike or offensive activities as opposed to traditional defense measures?

General WILSON. I don't have a good feel for that. I have not detected in my own reading or in visiting the Soviet Union and talking with our experts on the ground what would appear any marked shift in their doctrine from what it has been.

Would any of my colleagues like to comment further on that?

If you wish for us to pursue that question further I would be happy to do so. I don't think, however, that there has been any marked change.

Mr. MICHAUD. No.

Representative BROWN of Ohio. Only to the extent that you think you might be able to make some judgment from the nature of the investment, could you tell what the motivation was behind it. I assume that the figures lag somewhat from the actual expenditures.

General WILSON. I might add one thing further, if you will. [Deleted.]

Soviet Upgrading of General Purpose Forces

Representative Brown of Ohio. What about the prospect of movement in the conventional war area? I understand that there has been a very sizable buildup in their capability of crossing rivers and doing the kind of land warfare thing that might be appropriate to being invited into Yugoslavia or someplace else to help settle a local political situation.

General Wilson. Two points. Beginning several years ago we began to produce estimates in which we expressed the view that the Soviet conventional capability had been sufficiently upgraded [deleted]. They seemed to be prepared, and seemed to be even preparing in the context of certain scenarios, for launching an offensive and carrying out a campaign purely in the conventional mode, as opposed to going nuclear immediately. There has been, as what I will leave behind for the record will reflect, a significant upgrading in their general purpose forces. Against this is the state of the art making such doctrine more feasible for execution.

The Soviets have always placed strong emphasis on the business of being able to get over water barriers. I don't mean to try to give a history of it, but it derives from their experience in World War II where they had to do it with whatever hardware, bridging, and other flotation equipment was available. They became extremely skilled and well versed in getting across these natural barriers. Now they are doing this and doing it effectively in their exercises in Eastern Europe. They have fully, then, the military capability, in asituation such as Czechoslovakia in August of 1968, to deploy in the same kind of very rapid, highly mobile mode into an East European country of their choice.

Their troop lift capability has increased, and each year we see the curve gentling upward in terms of their capacity to project their forces in a conventional sense into a target area.

Representative Brown of Ohio. My time is up, Mr. Chairman.

Reasons for Soviet Buildup—The Chinese Threat

Chairman Proxmire. I think these are fundamental questions that Congressman Brown has asked.

What does seem to be the reason for the buildup? Is it an effect we can just speculate on? We have to assume that it affects everything.

He mentioned the first strike. How much of it, if any, is a matter of some kind of a notion of the Chinese threat to them, or the notion that they might have to be busy on that border, and how much of it, if any, can be attributed to some kind of strengthening their position so that they could take aggressive action in the Middle East, Far East, Europe, or elsewhere? Do you think it is useful to speculate on this, or do you not?

General Wilson. I think it is, "Yes." I don't know how effectively and how much to your satisfaction I can speculate, but I would like to try.

From conversations with the Soviets during my direct associations with them as Defense Attaché in 1971–73—bear in mind that this was during the period when the situation was warming up enough so that one could converse with senior representatives of the Soviet military hierarchy—I found that the most highly emotional issue for them—

I am referring now to three star generals and above in the Army, Navy, and Air Force, particularly in the Moscow area—their most highly emotional issue was the question of China. I am convinced that in their view this is perhaps the No. 1 threat, the No. 1 concern. We have seen them array, I believe, over 40—[deleted]—divisions now along the Sino-Soviet border. [Deleted.]

Representative BROWN of Ohio. [Deleted.]

General WILSON. [Deleted.]

Representative BROWN of Ohio. If you will, I am not sure I recall what the political or military situation was [deleted] that might have brought that about.

General WILSON. [Deleted.]

Chairman PROXMIRE. [Deleted.]

General WILSON. [Deleted.]

I think perhaps that Mr. Romance may have a feeling for this as the Sinologist present. [Deleted.] What I am trying to get across is the conviction which I hold that the Soviets' bad dream is a China, Communist China, 10 years from now with a nuclear capable force able to reach major Soviet European cities, and a force on the ground which has steadily been improved to the extent that a conflict between the Soviet Union and China would become a fairly awesome proposition. This to them is a very, very deepseated concern, both long term and short term, as I say, a psychological one as well, with deep historical and political roots. I think it weighs very, very heavily in their military and strategic considerations.

Chairman PROXMIRE. You indicate that the preemptive strike was an option that seems to have faded. The conventional wisdom could be that the Russians have emphasized very strongly defensive capability, and have put a great deal of their effort into defensive capability. And they have got a long history—Napoleon, World War I and World War II—where they won because of their great defensive capability. Is the reaction to China now one of making sure that they have a defensive capability? It seems to me, from the little I know, compared to your very comprehensive knowledge, that the Chinese shouldn't pose an offensive threat, an aggressive threat, they would be enormously powerful, I would think, in any kind of struggle in Asia, especially in China, but in Europe it is just hard for me to imagine that they could really be concerned about an attack from the Chinese.

General WILSON. You have raised two questions. One, how they view the Chinese as an offensive threat, and then a question concerning what we have viewed historically as a traditionally defensive posture on the part of the Soviets.

I think the Soviets are exceedingly sensitive to the short distances which separate the Trans-Siberian railroad from the Chinese border throughout over 5,000 miles. It is indeed vulnerable. There is incontrovertible [deleted] evidence that they are building sections and endeavoring to develop a parallel railway which is further in and thus not so vulnerable to the possibility of the Chinese coming across the border and cutting that railroad. To defend effectitvely along that entire 5,000 mile stretch would be a most difficult proposition. A mobile force could cut that railway. It might be subsequently ejected, but it is a sensitive proposition. That railroad is a very vital lifeline, as I know you recognize, between the maritime provinces and the Western Soviet Union.

Soviet Defensive and Counteroffensive Capabilities

Now, in answer to your very fascinating question about the business of the historical traditional notion of the Soviets being defensive minded, and the fact that we see them developing a rather significant offensive capability over the past couple of decades, how does that hang, and how do we square what we know historically and what we see, what we perceive to date?

I think there are a couple of considerations. One is that in the light of the ranges of various weapons systems and their destructive effect, to simply sit and defend a piece of territory becomes a less and less viable option in modern war. I think the Soviets were among the first to recognize this. Therefore they place a great deal of emphasis again in their doctrine of the counteroffensive or, if necessary, preempting to insure that an invader no longer has the opportunity to set his foot on Soviet soil.

I am sure you realize that the great experience for the Soviets is the great Fatherland War, as they call it. If I may indulge in hyperbole, for a moment, the Soviet citizen gets up every morning, and he has a wide vivisectional scar from his chin to his crotch, and he scratches it until it hurts. That is World War II. Then he goes off to work, and he lives with that hurt all day, with that memory of some 22 million Soviet dead, and the German armies on the Volga and down into the Caucasus, something which he hears over his radio, sees on his television and read in his newspapers everyday. It is ground into his consciousness.

Representative Brown of Ohio. Still?

General Wilson. Still, absolutely. And this psychological phenomenon, this syndrome, simply has an almost massive influence on the thinking of the average Russian citizen, and is reflected in their leadership, in what their leadership says to one another, what they write about in their military periodicals, and so on. It is very definitely a driving force in the Soviet consciousness. And when you couple that with the changing character of modern warfare, what can constitute a successful defensive doctrine, then I think you will find at least partially an explanation for this enormous offensive—counteroffensive capability the Soviet currently have.

Chairman Proxmire. I see. That is at least one possible explanation for the buildup.

General Wilson. One.

Soviet Internal Problems

Chairman Proxmire. Then how about the internal problem? We have had some testimony from the CIA that they had great adverse reaction from the population, perhaps even going to the extent almost of riots, because of the food situation. They had a couple of very bad years. They are having one or two meatless days a week each week every week. Would that be a matter that would be big enough and substantial enough to justify additional spending?

General Wilson. Senator, I don't think so, I really don't think so. I do know that bread riots in Gdansk and Gdynia in December 1970 on the part of the Poles was for the Soviets a sobering experience. I think this bothered them more than the Czechoslovak situation in 1968, or the Hungarian problem in 1956, because in this instance you

didn't have political dissidents or students or intellectuals who were creating the problem. The Polish workers of these two cities were rioting with their hammers in their hands.

Representative BROWN of Ohio. This is a more recent reference that you are making, though, isn't it?

Chariman PROXMIRE. That is right. This is the testimony that we have in the last 2 weeks.

General WILSON. I am aware only thinly of some of the difficulties. I don't have the impression that they got out of hand or that they were difficult. What I am trying to build a quick case for, if you will allow me a second, is that you will find the threat of what happened in Poland running through the 24th Party Congress, the reaction to it, and that it continues today. They recognize that when the price of bread goes up that they have problems. But, this is not so much a matter that causes one to develop a modernized military force with strike capability up to 5,000 to 7,000 miles, this is a problem for the KGB and for the internal security forces, which I think are largely adequate to handle this kind of problem, particularly if they can be supplemented with limited military force.

SOVIET NAVAL BUILDUP

Chairman PROXMIRE. Let me ask you about this. One element of this buildup that has been discussed greatly, and it doesn't seem to fit into this as much, is the buildup of their navy, the allegations that they have concentrated an enormous amount of resources in building a navy which they had not done before in the same way, to the same extent. How do you fit this into the notion that they had to have an offensive capability to be able to defend themselves in the kind of situation we are in?

General WILSON. Will you give me a chance to add to the point which I made, which if taken alone I am afraid might be slightly misleading.

There are other factors at work. The navy is a good example. Ever since the battle of the Strait of Tsushima in 1905, where the Japanese destroyed the Russian's Eastern Fleet, the Soviets have been struggling in their historical consciousness with the fact that they were not, even in World War II, a significant naval power. When I ask the Soviets jestingly, what were their great naval battles in World War II, it is an embarrassing question to them. Following World War II, I think they set about a matter of national pride—there is a sense of national inferiority on the part of the Russians that drive them to a lot of things, to be a leading, if not the leading world naval power. One can ask the question, have they developed this highly effective deep blue ocean navy in response to the requirement to be able to meet certain foreign policy objectives, or did they build it just because they wanted a big navy that they could be proud of? I suspect, as irrational as this may sound, that there is a considerable impulse deriving from the latter, and now that they have it they are seeking ways and means to use it. That may sound a little silly, but I really believe that that has to be considered.

There is no question that it has been expensive. There was evidence on [deleted]. So, it might be of passing interest to you.

So, I think the navy has to be viewed in that context. The Soviet Navy officers say to me with some pride: "Wilson, we have the capability to project our forces to any point in the globe that we wish." This is sort of braggadocio, national pride, but this also is the Russian inferiority complex expressing itself. It isn't so much the Soviet Communist menace as it is Russian nationalism on the move, just as much as it was during the time of the czars.

Chairman PROXIMIRE. Congressman Brown of Ohio.

POSSIBLE EFFECTS OF BAD SOVIET HARVEST

Representative BROWN of Ohio. I want to pick up on a point that the Senator asked about the harvest prospects, or rather the results of previous failures. If the Soviets—and I hate to ask the question in a speculative way—but, if the Soviet harvest is slim this year, as has been indicated it very well may be, or into the future, is there any indication that their percentage of expenditures for the military may be turned into consumer goods, in particular agricultural production?

General WILSON. I follow your question completely. I think this is a dilemma that they live with all the time. And obviously it would be worse even in the case of a harvest failure or harvest failures in successive years. [Deleted.]

We sort of factored this as a raw thing into our data base, so to speak, and we are not sure that this should be measured with precision. But nonetheless it is indicative of the burden when the harvest is so poor that the cattle are being slaughtered in order to save the feed grain for the people, and when the maids and chauffeurs in Moscow working for us are queuing up to buy bread and stash it away, to hoard it. We have seen this occur on a couple of occasions. This really puts you up very hard against this proposition of whether you are going to buy guns or you are going to buy bread. It clearly is a dilemma for them. I personally feel, if their situation were to worsen sufficiently, they might have to decrease their defense expenditures in order to feed their people, to save them, No. 1, and No. 2, to avoid the possibility of the kind of dissension which could occur, and which could cause them great trouble. Their economy serves them very poorly in their agricultural section.

Representative BROWN of Ohio. The navy is not worth much if it only brings home hungry sailors, I would have to argue.

SOVIET INTERCHANGE OF MILITARY EQUIPMENT WITH CONSUMER ITEMS

The interchange ability of Soviet military equipment with their consumer items is a factor that maybe has some bearing on just how big the Soviet military capacity is. We don't do that. Our commercial airplanes would have to undergo rather significant changes to be used for military planes, I gathered, whereas the Soviets seem not to let convenience get in the way of their practical applications as a military vehicle. And certain other things, the fact that you could tie a military vehicle and a civilian vehicle together because they may interlock in some way.

How big a factor is that in how the Soviet economy is designed to match up with the military application of civilian systems?

General WILSON. I think it is a significant factor. It certainly increaes our problem in endeavoring to cost out either in dollars or rubles the full defense expenditure on the part of the Soviets. For example, the Soviets have a system, of which you are probably aware, known as Autokolonna or auto columns. Their trucks normally used for civil commercial purposes, as we would put it, are designated to be mobilized in a crisis, within the context of a military transportation unit. We see them exercising, calling up this auto column with trucks which are used for vegetables or livestock, or what have you. One weekend you might find it loaded with soldiers going down the road. This system is designed to serve either of those purposes. I think it would be safe to say that its civil purpose is essentially the primary one and its military purpose is secondary. But, it still is dual purpose by design.

The Soviets capability to use Aeroflot, the world's largest airline, totally as a military lift instrument certainly increases their capability to project their forces. We see Aeroflot being called into services whenever the Soviets engage in their rotation of forces from the Warsaw Pact area in Eastern Germany back to the Soviet Union. So this is a significant add-on to their military capability. Exactly how much I could not tell you, sir. But, it is extremely difficult to cost out, because one is faced with the definitional problem as to whether it is civil or whether it is military and who's paying for what part, and how much comes out of which budget.

I am afraid I haven't helped you very much with my answer, but I hope I have clarified the situation a little.

Representative BROWN of Ohio. Except to the degree it is a problem, you really haven't helped me very much, because I still don't know how that translates. I suppose there is some provision in our budget too that you could use, and that you could use certain kinds of trucks to transport troops also. And of course we have some maritime subsidies to give us a merchant fleet that could be used for military purposes as it was in World War II.

General WILSON. May I turn to Mr. Michaud?

Mr. MICHAUD. I could only add examples of where the design is to help the military to use the civilian equipment. The tractor industry is producing tractors by the hundreds of thousands to use on the farms, but they can use them in the military sector.

Representative BROWN of Ohio. I guess really the second question I was going to ask was, if we can assume that they do a great deal more of that than we do, is there an appropriate effort that should be made on our part to interrelate more specifically than we are doing currently?

In other words, would we enjoy certain economies in our society if you could produce commercial aircraft that would be easily convertible to military use, and perhaps certain other things that might be done? Have we gotten away from something that would have been more practicably applied in the late 1930's or the beginning of World War II before we got in it? Do you follow my question?

General WILSON. Yes, sir. I would answer it, if I might, as a taxpayer rather than an intelligence officer, because that gets us over on the blue side. I think the possibility of some savings in this area exists, and that it should be the subject of analysis and exploration.

Soviet Army Capital Intensive

Representative Brown of Ohio. Let me go to another area. What is there about the Soviet military policy that makes the Soviet Army in some ways more capital intensive than our own? The argument is that we have an armored division that has 15,000 men and 324 tanks, and they have 9,000 men and 325 tanks. Why?

General Wilson. I can give you part of the answer—and I would like to turn to one of my colleagues on this one too.

The Soviets will operate a weapons system with fewer people than we. I don't know whether they are right or they are wrong. Indeed, on Friday I spent about a half-hour with one of our senior army generals who was responsible for our training and our doctrine discussing exactly this same point. He handed me an informal task to look into this further. He wants to break out the very point you are raising, whether or not we are inclined to be too well manned with a tank or an artillery piece. There are fewer Soviets around an artillery piece than there are American artillery men around one of our pieces. Here is the third or fourth senior officer of the U.S. Army raising that as a very serious question, precisely the point you are raising. It is one which should be examined. Their tooth-to-tail ratio is certainly better than ours, more favorable than ours. I suspect that this has a certain cost in terms of being able to sustain one's forces overtime in battle. On the other hand, the Soviets tend to replace by units rather than by individuals. But, they are more bloody than we are, I guess. They wear a unit out and then replace it with another unit, whereas we tend to follow the individual replacement route, which is a spin-off kind of question from the very fundamental one that you raised.

Now, I can't enlighten you much further on this area, other than to say, the question is right-on, and one that has us a bit concerned.

Representative Brown of Ohio. It is being addressed, is it safe to say?

General Wilson. Yes, it is.

Chairman Proxmire. I have been concerned about that tooth-to-tail ratio for a long time. It seems to be getting out of hand.

Inefficiency in the Soviet Military

But, let me ask you some other questions. The CIA study on estimated Soviet defense spending in rubles just out, May of 1976, last month, says that the Soviet defense industries are far less efficient than formerly believed.

Now, that would explain in part the big increase in spending. They claim that there is a big component apparently in inefficiency. Now, do you disagree with that statement? They say far less efficient.

General Wilson. The statement goes a little further than I would personally be willing to go, consistent with my earlier response to the same question.

I am not sure enough to buy off on that completely, particularly with the additional adjectives, "far less efficient" than we earlier had believed. That there are some inefficiencies there is no doubt, I have seen them.

Chairman Proxmire. But, we now apparently, according to the CIA, are more aware—apparently they feel that they are better documented.

They feel that the implication is clear that they think that is one of the explanations.

General WILSON. They have stated that this is one of the explanations. I have a feeling that they are ascribing more significance to it than I would.

SOVIET MILITARY R. & D.

Chairman PROXMIRE. I was asking you awhile ago about the Soviet spending on R.D.T. & E. And you made an estimate that they were spending about [deleted] again as what they were.

General WILSON. That was my estimate.

Chairman PROXMIRE. The analysts believe that the estimates about R.D.T. & E. effort are the least reliable.

General WILSON. I agree.

Chairman PROXMIRE. In view of the unreliability of this estimate, how can you be sure that they are outspending us in this area?

General WILSON. Again by what we physically see, what we can count, what we can read——

Chairman PROXMIRE. Isn't it awfully hard to physically see and count research?

General WILSON. [Deleted.]

Chairman PROXMIRE. I am sure you can tell quite a bit about development and prototypes and so forth.

General WILSON. We have identified research institutes, design bureaus—[deleted].

Chairman PROXMIRE. You can count on that. Why did you agree with the CIA that there is uncertainty in this?

General WILSON. Because we are not quite sure what they are doing.

Chairman PROXMIRE. What specific evidence can you cite to support the conclusion that the Soviet R.D.T. & E. surpasses ours, except for the fact that they have not got buildings that you are sure are research buildings?

General WILSON. In terms of statistical data available beyond what I have alluded to, I have no further evidence from any source.

Mr. MILLER. There is one thing that I might bring up along this line, and that is, a strategic study has been done. And a lot of this is based on Soviet educational data outputs. The thrust of the education program in the Soviet Union is toward developing engineers and scientists.

Now, about 1957, I believe it was, they surpassed the United States in production, or generation, I should say, of graduate engineers. We have been able to [deleted]. So, we can see the emphasis on people for the design bureaus. They have the capability of providing the housing for these people. So, it becomes very attractive.

Chairman PROXMIRE. How do you really classify engineers, though? We have in Waukesha, Wis., a summer program for training technicians. It is really marvelous. We have spent a lot of money, and it does a great job of training highly skilled people. We wouldn't call them engineers, and they aren't engineers, they are technicians of all kinds, mechanics, and so forth. And I think it is one of the best things we have done in our State. Isn't it possible that many of these people are being trained for that kind of work? Not that that is not very important, but it is not the same as engineers who are engaged in research and development for new weapons, and so forth.

Mr. MILLER. That is true to a point. But, there is a fair percentage who are technically oriented, the so-called trade school graduates or technical school graduates. But, we see a very large increase also at the Masters and Ph. D. level in scientists, engineers, electrical, and these types of things.

Chairman PROXMIRE. In view of the uncertainty about Soviet R.D.T. & E. doesn't it weaken the credibility of the overall defense spending levels to lump the R.D.T. & E. in with the more reliable spending? Wouldn't it make more sense to drop this R.D.T. & E. from the spending estimates until the techniques are improved, or at least separate them?

General WILSON. I think that is a good point, Senator Proxmire. We have lumped things where we are fairly certain, and again some things where we are less certain, and this is a case of the latter. I would see no reason at all why that shouldn't be done. That would probably improve the credibility of the estimate if we provided that kind of discrimination or differentiation.

Chairman PROXMIRE. Very good. We would appreciate it if you would do as much of that as you can in future reports.

On submarines, in your prepared statement you pointed out that Soviet submarine speeds are greater than ours, [deleted]. Which submarines and which U.S. submarines are you referring to?

Mr. MILLER. The *Victor.*

Chairman PROXMIRE. And the U.S. submarine?

Mr. MILLER. We are comparing the *Victor* class to the U.S. attack-type submarines.

Chairman PROXMIRE. What kind?

Mr. MILLER. I can't remember.

Chairman PROXMIRE. The 637's and 688's?

Mr. MILLER. Yes, sir.

General WILSON. I am not sure. Let's check that.

Chairman PROXMIRE. How about the noise levels? Are the *Victor* and *Charlie* class submarines as quiet as our 637 and 688?

Mr. MILLER. [Deleted.]

Representative BROWN of Ohio. [Deleted.]

Mr. MILLER. [Deleted.]

Chairman PROXMIRE. Can you briefly discuss the Soviet and the U.S. subs, the number of torpedo tubes and torpedo loads, sonar types, sonar capability, and number of cruise launchers and the load?

Mr. MILLER. Not briefly.

Chairman PROXMIRE. I will come back to this in a few minutes. I will go to rollcall and be back shortly.

U.S. DEFENSE SPENDING IN RUBLES

Representative BROWN of Ohio [presiding]. Just for your comment, let me raise another question.

You have calculated the Soviet defense spending in terms of U.S. dollars. Is it possible to do the opposite, to calculate U.S. spending in terms of rubles? In the past, the Defense Department has claimed that this is impossible to do because some U.S. technology is impossible to duplicate in the Soviet Union. But, that shows a little bit of the fallacy of this whole dollar-ruble comparison exercise, because in effect for the Russians to catch up to us in some areas would mean such a mass

of expenditure in that particular area that it just wouldn't be—I shouldn't say it would be prudent, but it would take such a portion of what they are doing, and such a focus, that the comparisons begin to fall apart.

What I am really trying to do is to make a determination as to whether you can really square up these two estimates of military strength very effectively.

General WILSON. I think that we could cost our own defense expenditures that way in a rather loose and general sense. But I would not be comfortable with it for the following reasons. That is because of the sliding value of the ruble. Depending upon which ruble we are talking about, the Soviets themselves laugh a little when we try to use their ruble as a value measurement, because they recognize that a ruble means most anything that they want it to mean.

Representative BROWN of Ohio. And assign the price.

General WILSON. That is right. So, that would make such an estimate very, very difficult to handle, depending upon whether you use the tourist rates or some other rate. It would certainly have to be consistent for both our costing of Soviet expenditures and ours to make sure that we are using an exact measurement device. You might be interested in a comment made to me once by a Soviet officer when I was pressing him on Soviet defense expenditures and trying to get him to respond.

He said, look, that is a losing game. The ruble is an artificial value. [Deleted.]

That is awfully simplistic, and I recognize it. But, somehow it had a certain appeal to me, because I am uneasy in this translation process of dollars to rubles and vice versa.

SOVIET DEFENSE SPENDING IN DOLLARS

Representative BROWN of Ohio. Let me hold the measure up to that in another way. In part II you analyze what it would cost to "procure, equip, and operate similar forces" in the United States as presently exist in the Soviet Union. By the use of the phrase "simar forces" are you assuming for the purposes of this exercise that each Soviet foot soldier has the same salary and high degree of military training and sleeps in a two-men-to-a-room barracks as in the modern military approach in the United States?

To put it another way, I remember my father speaking of the fellows coming in with their squirrel rifles in World War I barefooted to respond to the draft and the call for enlistees in certain parts of Ohio. And when they got their uniforms and their shoes and their outfits they were perhaps better off, even though it was fairly minimal kind of clothing and equipment, than they were when they were home on the farm. There is a difference now in our standard of living and certainly a difference between ours and the Russians. How does this really translate in the figures that you are using here? Does it mean that we are assuming that the Russian foot soldier is getting the same pay and emoluments and retirement benefits as the American soldier?

Mr. MICHAUD. As you know, the factors used in dollars represent factors for U.S. military forces, and the Soviets are seen as an alternative military force. There is no attempt to analyze the quality of

the forces or the quality of the equipment in use. If one did that he would have to make a—you simply take it at face value, what it would cost to produce a piece of equipment in the United States. If we were to field the number of men this would be our cost. There is no attempt to examine the capability or quality of either.

Representative BROWN of Ohio. But, now our cost is 40 percent to 50 percent per man of our total military expenditures; isn't it?

Mr. MICHAUD. Yes.

Representative BROWN of Ohio. Are you applying that to the Russians and saying that is for us to match man for man the Russian military force using the 40 percent to 50 percent factor, that it would cost.

Mr. MICHAUD. It is a building-block approach. There is no presumption of proportion as to how much of their resources or what proportion of their resources or personnel procurement, it is a building-block approach. So you cost the number of men, you cost the amount of equipment, and whatever that sums up to, you get a different breakout in terms of resource costs. So, their manpower costs are relatively a smaller percentage dollarwise than our dollar personnel cost.

General WILSON. I don't think we have answered your question. And I am not fully confident that I can, though I should be able to. I think you got from someone in one of your earlier sessions of this committee the statements that, if we set aside personnel costs the disparity or the gross difference between ourselves and the Soviets in terms of expenditure would be even greater. I have some difficulty with that. You may recall that, Senator Proxmire.

Chairman PROXMIRE [presiding]. I do indeed. I had a lot of difficulty with that too.

General WILSON. I have difficulty with that; I believe also Mr. Schlesinger would have difficulty with that, because if you recall, he had taken in some of his statements the opposite approach. I am more inclined to go along with his view. I respect greatly the man, who is a very sophisticated gentleman, who was talking to you about this particular case. I simply have difficulty with his point of view.

Representative BROWN of Ohio. I have difficulty with it both ways, because I think we have to be realistic. You are not going to get an American soldier out of his $7.50 an hour job in civilian life into the military for $21 a month anymore, nor for what the Soviets pay. And then there is another vast difference in the economy too, and that is that you are not going to have, as the Chinese do, a military unit which is encamped with its planted rice and its pigs and the things that they kind of keep to maintain themselves as part of their operation. I think the game of comparison is a very difficult game at best to play, and it really cuts into the technological area, and in on the standard of living area, and into a lot of other things that make it tough for us to make this comparison. I have some difficulty with it. And I am just trying to figure out what you used when you were saying what the comparison would be in terms of our dollars versus their dollars.

Chairman PROXMIRE. I might say that the corrected record from the CIA acknowledges that you are right when they say this, effective manpower costs, if all cost of military personnel are subtracted from both sides, total estimated dollar costs for the Soviet defense pro-

grams are more than 25 percent higher than total U.S. authorizations in 1975.

So, that would acknowledge the fact that their personnel are far less expensive than ours, and if we translate it into dollars, and our pay, and so forth, that would explain it. So, that would indicate that they are substantially bigger than we are, but by a lesser proportion if you include manpower.

Representative BROWN of Ohio. And this would be more true with the Chinese. I think the fact that the Chinese have a fairly low budget is not indicative of the fact that they aren't doing maybe some extensive procurement, because their manpower costs are, I would think, quite normal.

SOVIET ATTITUDE TOWARD CHINA

I want to ask one other question that maybe I should have asked the CIA and wasn't here to do it. But, you stimulated me with your comments with the Russian fear of being overrun again.

Is the psychology in your analysis of the Russians that they see the Chinese as the new Germans or see the Chinese as the old Genghis Khan?

General WILSON. The latter, sir. The Soviets are very pragmatic, I think, in their assessment of what an enemy is capable of doing. They see the Chinese along that extended border as a kind of a growing cancer with the sheepherders and the patrols and these kind of things. I don't think they see a Chinese juggernaut moving into Soviet Siberia, I don't think they see that at all. So, it is the Genghis Khan.

Representative BROWN of Ohio. It has to do with the motherland, fatherland, defense of native soil, rather than thinking of themselves as the defenders of the West against the orientals, that kind of thing?

General WILSON. Not entirely. They seem to see the Chinese presence as some sort of parasitic organism that is going to ebb onto Soviet territory, and to grow back into the Soviet hinterland, as opposed to an all-out military thrust after cities and rail junctions and bridge lines, that kind of thing. It is a sort of pathological thing that gets awfully implausible as you pursue it. But, they are definitely not the same kind of threats which they felt from the Germans historically, and actually underwent.

EASTERN EUROPE

Representative BROWN of Ohio. And finally, in the offensive area, they have established their buffers in Eastern Europe, thereby giving themselves a leadtime to be protected from any NATO activity. Did you see their offensive efforts as designed to maintain that kind of a buffer situation, that is, to go out into Yugoslavia to keep it from going further into the Western camp, or to Poland to keep it from drifting further away from the Soviet orbit, or as something that is developed for use more in a random way as the opportunity strikes in the future for them?

General WILSON. For offensive purposes?

Representative BROWN of Ohio. Yes.

General WILSON. I think I am in the minority in my views in this area, and I would like to caveat it in that way, my own personal views.

[Deleted] said to me on one occasion when he was in his cups, stubbing me with his forefinger, "Wilson, if you think we are going to give up one single centimeter of the territory which we acquired in Eastern Europe with our blood and our sacrifices, you are completely crazy."

Now, I have heard that kind of expression numbers of times from senior Soviets. To them it is their territory, part of their empire. And I think they would be almost as sensitive to the fragmentation of that territory, of that part of their empire, as they would be to Chinese excursion into the actual territory of the Soviet Union. In time I think that sensitivity is going to increase as they become accustomed to that territory existing as part of the Soviet empire.

I further feel that the stationing of Soviet forces in the so-called Warsaw Pact area has a dual design, and that the second part of that duality is as much to maintain their sway over an empire as it is to pose a threat ot NATO.

Now, my colleagues sharply disagree with me on this part. But, I feel it viscerally, and it derives not from just some dream, but from talking with these people and getting a feel for how they feel about it.

Representative BROWN of Ohio. Let me intrude a bit beyond my 10 minutes and pursue that for a minute. You leave out one dimension that I want to address. I tend to concur with your assessment because of my feeling that the Soviets cannot avoid the developing independence of these Warsaw Pact countries, and the only way they can maintain their influence over them is to have the capacity to shoot out there and bat anybody down who gets too independent, or too independent for whatever their current political arrangements are.

General WILSON. As they have been ready to demonstrate.

Representative BROWN of Ohio. As they have done in the past, and they seem always ready to demonstrate. But, that fashion changes, and they may be willing to let them express some more independence or less as the years go by and the circumstances change.

OTHER AREAS OF THE WORLD

But, the other areas of the world are also in this picture. And that is South Asia, the Middle East, Africa, areas in which they might be in a position to use this navy that they have developed, and their other offensive weapons.

General WILSON. Here we have an entirely different kind of doctrine and thesis, I believe, Congressman Brown, when we refer to the rest of the developed areas of the world and the Soviet concept of just wars or wars of national liberation. I am convinced that the Soviets, particularly now, seeing that we no longer have a taste for that kind of conflict—and I have got ambivalent feelings about that kind of conflict myself, it happens to be an area of my own specialization, so I know a little bit of what I am talking about—the Soviets are still adhering very closely to the tenets enunciated by Khrushchev in January 1961 when he said nuclear war is out of the question—I am paraphrasing of course—general conventional wars are much too dangerous because of the possibility of escalation.

But, as he put it, where colonial people, or people who have recently freed themselves from the colonialist yoke, are seeking to force themselves and determine their own national destiny, that is where we, the Soviets, are going to be. And the Communist Party of the Soviet

Union will be in the vanguard. The Soviets have developed the techniques, the doctrine, the foreign military assistance capacity which they exercise to be able to develop Soviet influence in a number of these areas in very low-key ways, ways that avoid open confrontation with us; indeed they seem to feel that they can do this hand-in-hand while pursuing the policy of détente. I personally feel that this is an area that should be of considerable concern to us.

I am not sure of the best way to respond, because the Lord only knows we don't want to get ourselves dragged down in a quagmire again. But, this is an area where I feel the Soviets are exploiting our reaction to our debacle in Southeast Asia, competing with the Chinese, and doing that very effectively. I think we can anticipate increasing Soviet attention to this kind of activity.

Performance Characteristics of U.S.–Soviet Weapons

Chairman Proxmire. When I went for a vote you were telling me that you would give us for the record, as I understand it, the Soviet and United States submarines, the form of torpedoes, tubes and torpedo loads, sonar types and sonar capability, and number of missiles and launches and loads. Will you give us the type of comparative performance and characteristics requested for the submarines and other advanced technology weapons, missiles, aircraft, ships, and ground combat weapons?

General Wilson. You are speaking of comparative statistics?

Chairman Proxmire. That is correct.

General Wilson. We will endeavor to do so. But, may I simply let you know that what we will be providing is the red data or Soviet data. We will have to go to other elements in the Pentagon to get the blue data. We, as intelligence officers, are very assiduous in trying to avoid getting into the blue side of data.

Soviet Policy Concerning New Weapons

Chairman Proxmire. Now, you point out that the Soviets are testing [deleted] new submarine launch missiles, [deleted] and that they recently deployed three new ICBM's. Is it a characteristic of the Soviet military that two or more new generation weapons will be developed and tested simultaneously, and that sometimes they will produce and deploy two or more new generation weapons?

General Wilson. Yes; we have seen this occur. We have done a fairly careful analysis of the cycle, the generational cycle, through which these missiles go. And so I don't think that this represents a perturbation or an anomaly at all, do you?

Mr. Miller. No, sir.

General Wilson. Would you comment on that?

Mr. Miller. We saw 7 and 8 in the ICBM field as strict competitors. And the one was much better than the other, so they deployed more than they did the other. They saw that the 17 and 19 were apparently in competition originally.

Chairman Proxmire. They seemed to deploy both?

Mr. Miller. Yes, [deleted] of one and [deleted] of one.

Mr. Smith. The key thing is that the loser also gets a little bit to keep him going to the next round.

Chairman PROXMIRE. It seems to me that this practice is inefficient and costly. We don't follow that. We sometimes test more than one prototype, but then we select the best before production and deployment. How could you explain that practice of the Soviet Union?

Mr. MILLER. It seems to be a part of the procurement cycle. In other words, the one thing that you have to consider in the Soviet procurement cycle is the fact that the customer, the SNA or LRA or whoever it is, doesn't pay for any development cost. He goes into the Politburo with the request for a new capability for his particular force. The Politburo then approves or disapproves this requirement. If the requirement is approved, they set up a special team within the Politburo and the ministry of development, the machine development, ministry, for example, for ballistic missiles. And that team is then responsible for the development of that particular capability.

In other words, he will say, I want FOB's, for example. It is then up to the design bureau to then establish and develop that capability, and they will normally—the machine ministry will bring in two or three design bureaus and say, this is my requirement, and I would like you to take this through the prototype stage, and they will have a series of milestones as they go through the developmental stage, and at one time or another they can throw one out completely. A lot of these go clear to the prototype stage, and some of them go clear to the flight test stage. This used to be very prevalent in the aircraft industry or in the aircraft development industry, because we used to have up to three prototypes developed. They are getting away from that particular procedure in the aircraft field. We haven't had a competitive design in aircraft for about 7 or 8 years now.

They are all individual flight test prototypes. We are not sure that the SS–17 and SS–19 were strictly competitors. They appear to be, because they are both medium class ICBM's. They are both MIRV'ed. One carries four and the other carries six MIRV's. How competitive they were or whether or not they were competitive, we are not sure.

Chairman PROXMIRE. What I am getting at, just off hand this seems to be an extreme example of inefficiency, for several reasons. No. 1, when they have the competition they not only develop the best weapon but the loser also. You duplicate it. So they have the best but they also have an inferior weapons system.

Mr. MILLER. The one problem that I see with the Soviets is that they have a propensity for not throwing anything away. If they build it they keep it.

Mr. SMITH. If I could expand on this, the losers in the ICBM field, I think, historically have been the fellows that have been developing the solid fuel weapons. They deployed something like 60 missiles that they bought and put in the field, the SS–13 missiles. The same group comes along later and developed the 16, which is probably not the greatest thing as we see it right now.

But, this group also has a very good weapon system coming down the pike which we call the SS–X–20, which is a mobile IRBM system. [Deleted.]

So, he was a loser for a long time in this area, [deleted].

Mr. MILLER. [Deleted.]

Chairman PROXMIRE. Occasionally there will be payoffs. You can blunder into it.

Mr. MILLER. It is an inefficient way to do it, there is no question about it. But, one thing you have got to consider is that it does give your design bureaus and your developers a chance to get in. They can test new concepts and new technologies. That is one small advantage of it.

Chairman PROXMIRE. The prototype is fine, I can understand that. But, the production doesn't make sense.

Representative BROWN of Ohio. Is it more likely to bring about a breakthrough, though, than our system, do you think? Is that what you are trying to suggest?

Mr. SMITH. It is like the companies in the United States. We have the same in Boeing or North American or what have you. They have more missile design types than the United States, or probably more, for the strategic missiles.

Chairman PROXMIRE. I can understand how we can do it, because we want to keep these people alive, but they don't have to worry about it, because it is government owned.

Mr. MILLER. But they do.

Mr. SMITH. This is their way of doing it, they seem to be keeping it up, and pouring more money down this particular type of hole.

SOVIET MIRV PROGRAM

Chairman PROXMIRE. Secretary Currie recently testified that the Soviet MIRV program has progressed at a slower pace than the Defense Department projected at the end of last year. Can you explain the extent of the misestimate and what the facts are about the Soviet conversions to MIRV?

Mr. SMITH. I can say a few words on that. The slowness is really not that apparent. We may be a little bit, [deleted] behind the rate that we thought would be adequate, at one time. The key thing is that we see [deleted].

Chairman PROXMIRE. They are going to end up ahead of where we estimated?

Mr. SMITH. [Deleted.]

General WILSON. [Deleted.]

NEW SOVIET DEFENSE MINISTER

Chairman PROXMIRE. As you know, a new Soviet defense minister was recently appointed. I understand he was a civilian. Some observers argue that this is kind of a shift away from the hard line, the militant, toward a more moderate approach. The former minister was a professional military man while the new one was a civilian. Do you attach any significance to that at all, is there anything to it at all?

General WILSON. I would like to comment on your question, [deleted]. It will just take a couple of minutes.

The appointment of Ustinov appears to have been well received by the Soviet professional military, despite the fact that we weren't so sure that this would be the case.

Chairman PROXMIRE. Wasn't he originally, years ago, rejected, blocked from getting the appointment?

General WILSON. In 1967 he was rejected by the military, who preferred their own candidate, Grechko. [Deleted] the death of Grechko was very sudden, and the funeral was not over, or just over when

Ustinov was announced at the new man. But, there are some implications here that I think are very interesting. Ustinov, as you know, in the early 1930's was appointed as Stalin's Minister for Armaments, and held that position for some 12 years during the reign of Stalin. The Soviet military ascribe to him the credit for developing a number of successful weapons systems during World War II, to include the T–34 tank, a very important acquisition for them in the heat of Soviet-German war, and attribute his role as being very, very important in the modernization of the Soviet Armed Forces throughout this entire period. They particularly credit him with being able to survive with Stalin for this period of time without apparently incurring any disfavor on the part of the generalissimo.

[Deleted.]

The suggestion is, then, that the military, as a power bloc, carry a kind of a swing vote within the Soviet leadership while it is in the throes of change or someone is endeavoring to grab the pommel. This occurred in the case of Malenkov back in the mid-1950's when he was superseded by Khrushchev and Bulganin. It was the military who provided the swing vote in this case. We saw it happen again in 1964–65 with the demise of Khrushchev, who was replaced by Brezhnev. I think Brezhnev is very sensitive to this.

The further inference from this particular event I think is an interesting one. That is, in my view, the Soviet problem is their leadership's inability to succeed themselves. When President Kennedy was assassinated, the transition was smooth. When President Nixon left office, in no time at all the transition took place as almost an imperceptible thing as far as any real crisis is concerned. I have had an inkling from the Soviets that they envy our capability to succeed ourselves in this fashion. I think this inability to effect the transition in leadership gives rise to the importance of the military in the political scheme of thngs. Not that the military will not do the bidding of the Politburo. But, they do play this balancing role in terms of who is going to be in power. I think that that is worthy of note as we consider the role of Soviet military in that culture and that society as opposed to the role of the military in this country.

Representative BROWN of Ohio. You didn't quite make clear how the Marshal of the Soviet Union fits Brezhnev in that instance.

General WILSON. I would be happy to comment on that briefly if you like.

[Deleted.]

These kinds of anecdotes, incidentally, travel in Soviet society with rather unusual rapidity. Whether they are true or not, to me the significant thing is that they got told, and got shared. This was one which was getting around even in Soviet circles.

Chairman PROXMIRE. That is a very interesting explanation. At the time it is a fact that a nonmilitary person who had been blocked by the military before was appointed as the defense minister to replace the military man. And you draw the conclusion from that, that that still shows the power of the military——

General WILSON. And the fact that it has to be done the way it was done, as quickly as it was done, a man who was already——

Chairman PROXMIRE. Or isn't that good politics? Wouldn't we try to do that in our case? I have talked to a number of—I haven't been a

Governor myself, but they tell me that the smartest thing to do when you have an appointment is to make it as fast as you can before you get a whole group of people contending, and then you won't have a lot contending people.

General WILSON. I appreciate your point very much. And I don't disregard it. What I am telling you is not just my own personal view, but a compendium or a collection of views expressed to me by [deleted].

Chairman PROXMIRE. Aren't all the military people going to do that? After all, they have pride in their power. They don't want you to feel that they are losing it.

General WILSON. To a degree. But, I was not getting this—normally, Senator, when you are getting the same kind of reaction from Soviets, if it is agreed upon party line, you get essentially the same word. If this is something that they sort of feel, you will get it expressed slightly askew, but in related fashion, so that if it is a party line they are following they are not doing it very well, but the ultimate effect of it is the same.

THE PROBLEM OF SUCCESSION IN CHINA

Chairman PROXMIRE. Do you have any other questions?

Representative BROWN of Ohio. I would like to hear what the sinologist says about the succession in China, which seems to be somewhat more imminent than the Russians.

Mr. ROMANCE. Congressman Brown, that is probably the most difficult question posed all afternoon. Actually it is an extremely complex situation.

Representative BROWN of Ohio. I understand the rationale of the significance of the military in Asia. Is there a similarity in China?

Mr. ROMANCE. The political role of the PLA in China can be taken for granted. It is after all the "People's" Army, so, it must be involved in politics to a certain extent. One should remember the famous Maoist aphorism about the military never controlling the party in assessing the likely future role of the PLA in this very complicated transition period. [Deleted.]

Representative BROWN of Ohio. The radical of the left or the right?

Mr. ROMANCE. [Deleted.]

Representative BROWN of Ohio. [Deleted.]

Mr. ROMANCE. [Deleted.]

Representative BROWN of Ohio. [Deleted.]

Mr. ROMANCE. [Deleted.]

CHINESE ATTITUDES TOWARD SOVIET UNION

Chairman PROXMIRE. Is there a difference between the factions vis-a-vis their attitude toward the Soviet Union?

Mr. ROMANCE. I think that clearly the anti-Soviet sentiment among the Chinese political factions is more pronounced among the radical than it is among the so-called moderates. But underlying all this, I believe there exists what the general referred to earlier as a syndrome. These terms of derision that the general mentioned are in the Russian lexicon and are matched in the case of the Chinese.

Representative BROWN of Ohio. How about the Russians?

Mr. ROMANCE. That is what I was referring to a moment ago, sir. The Chinese have their equivalent terms of derision. The Russians might refer, and do, to the Chinese as the "yellow peril." The Chinese will use the term "ta pi tzu," the "big noses," and so on. It is almost a visceral racial hatred. I use that term advisedly. This hatred for the Russians has been enhanced by the Chinese sense of betrayal by another Communist state. It is not just the historical animosity and the unequal treaties, but it is also the result of more recent experiences—1958 is an example. The Soviet nuclear umbrella must have looked very impressive to the Chinese prior to the Taiwan Straits crisis of that year. Yet the Soviets did not come to the assistance of the PRC as it expected during the crisis. There are a myriad of reasons why the Chinese do not trust and have this dislike for the Russians.

Chairman PROXMIRE. I would like the statements of Brezhnev and Kosygin that you mentioned in your prepared statement in the record.[1]

And I finally hope that the transcript can be quickly sanitized.

General WILSON. Yes; we will do the best we can.

Chairman PROXMIRE. You have made a fine presentation. You have done an excellent job.

[Whereupon, at 5:30 p.m., the subcommittee adjourned, subject to the call of the Chair.]

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[1] The information requested for the record by Chairman Proxmire is classified material.

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