

# ECONOMICS OF DEFENSE PROCUREMENT: SHIPBUILDING CLAIMS

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## HEARINGS BEFORE THE SUBCOMMITTEE ON PRIORITIES AND ECONOMY IN GOVERNMENT OF THE JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES NINETY-FIFTH CONGRESS SECOND SESSION

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### PART 3

MAY 19 AND SEPTEMBER 8, 1978, AND JANUARY 3 AND 4, 1979

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Printed for the use of the Joint Economic Committee

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# ECONOMICS OF DEFENSE PROCUREMENT: SHIPBUILDING CLAIMS

FRIDAY, MAY 19, 1978

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 9:43 a.m., in room 5302, Dirksen Senate Office Building; Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senator Proxmire.

Also present: Richard F. Kaufman, general counsel; Steve Watkins, professional staff member; Mark Borchelt, administrative assistant; and Charles H. Bradford, minority counsel.

Senator PROXMIRE. The subcommittee will come to order.

Before I give my statement, I would like to let you gentlemen know that we are going to have a couple of interruptions this morning in the course of this hearing.

Senator Weicker is going to come in, and when he comes in, we want to accommodate him, and we will put him on. A little later I am going to have to go to the floor. I have a statement I have to make on the floor at about 10:30. We will recess the hearing during that period and I will be right back. It shouldn't take more than 15 minutes or maybe 20.

## OPENING STATEMENT OF SENATOR PROXMIRE, CHAIRMAN

Senator PROXMIRE. This subcommittee has been holding hearings on Navy shipbuilding claims since 1969. They seemed large then, but they were only a small fraction of the \$2.7 billion pending today.

Our purpose has been to inquire into the cost consequences of the claims and the effect of the claims problem on defense procurement.

We are now enlarging our focus to include shipbuilding itself. One objective is to understand the problems of ship construction generally and why it takes so long and costs so much to build ships for the U.S. Navy.

There is general agreement that productivity in the shipbuilding industry is low and that it is especially low in the yards where Navy ships are built. The Electric Boat Division of General Dynamics is one of those shipyards. When there is low productivity in a shipyard doing work for the Navy, schedule slippages and cost overruns inevitably follow.

The question we are asking today is: Why is productivity and efficiency low at the Electric Boat Division?

We want to know how productivity in a shipyard is measured, how the Navy monitors it, and the steps being taken, if any, to improve productivity in the Electric Boat Division.

We want to know whether there is less efficiency at the Electric Boat Division than other major shipyards and, if so, why.

We also hope to learn the extent of Government responsibility for productivity problems at Electric Boat and the extent to which the company is responsible for its own inefficiency.

Our witnesses are very well qualified to throw light on these matters. We will begin with three individuals who have had direct experience at the Electric Boat Division, one as a management official and two as skilled workers.

They will be followed by Vice Adm. C. R. Bryan, Commander of the Naval Sea Systems Command.

We will also hear, as I pointed out, from the Honorable Lowell P. Weicker, Jr., a Senator from Connecticut.

We invited General Dynamics and the other two major shipbuilders, Litton and Tenneco, to this hearing so that they might present their sides of the story. Each has declined our invitation.

It is unfortunate that the contractors do not see fit to reply to the allegations made before this subcommittee and to complete the picture of Navy shipbuilding being provided to us. I hope they will change their minds about testifying, and once again I extend an invitation to them to appear before us and help us gather the facts we need to carry out our responsibilities.

We will start, then, with Mr. Ballato, Mr. Camara, and Mr. Eno.

Mr. Ballato, we are delighted to have you. In order to give you guidance so that you will know how the time is running, we have a little system here. The green light goes on for 9 minutes and the yellow light (caution) goes on for 1 minute, and then the red light goes on, and the red light means that is it. OK?

That is for your help so you know when the 10 minutes are up.

You may start now, and they will turn it on in a minute or two. Go right ahead.

**STATEMENT OF CHARLES J. BALLATO, PIPEFITTER, ELECTRIC BOAT DIVISION, GENERAL DYNAMICS CORP., GROTON, CONN.**

Mr. BALLATO. My name is Charles Ballato, and I am a pipefitter at General Dynamics in Groton, Conn. I have worked there for 13 years. I am a member of local 620 of the United Association of Journeymen and Apprentices of Plumbing and Pipefitting Industry of the United States and Canada. I am recording secretary of local 620 and was formerly chairman of its workman's compensation committee. The pipefitters union is a member of the Metal Trades Council of New London County, which is the certified bargaining agent at Electric Boat. I am also the chairman of the Occupational Disease Committee of the Metal Trades Council.

First of all, I would like to thank Senator Proxmire and this subcommittee for inviting me to speak here today. I hope my testimony will be helpful in trying to resolve some of the problems at Electric Boat. In my area, mostly, the most serious is the health problem.

The first priority always is safeguarding workers on the job for all our members, this permanent health clinic to examine all workers who have been exposed to asbestos and other occupational diseases. We hope they will live a more healthy and happier life.

I would like to thank the officers and the executive board and the membership of local 620 for the opportunity to testify on their behalf. Our local has devoted a lot to time and effort to this program and we intend to explore all avenues to reach our goal.

It is apparent to us through the health clinics that I mention in my statement, that was done by Dr. Irvine Selikoff of Mount Sinai Hospital, that in 1975 and 1976 a large number of X-ray abnormalities were discovered which indicated exposure to asbestos. It is very discouraging that with these findings, Electric Boat and General Dynamics Corp., do not really see the seriousness of these clinics, and have made no effort to conduct other clinics to examine people who were exposed to asbestos.

What they failed to do, we will do. It may take quite a long while, but as long as the unions are at Electric Boat, this clinic will take place.

Thank you very much.

[The prepared statement of Mr. Ballato follows:]

#### PREPARED STATEMENT OF CHARLES J. BALLATO

I am Charles J. Ballato, I am a pipefitter at Electric Boat Division of General Dynamics in Groton, Connecticut. I have worked there for 13 years. I am a member of Local 620 of the United Association of Journeymen and Apprentices of Plumbing and Pipefitting Industry of the United States and Canada. I am recording Secretary of Local 620 and was formerly Chairman of its Workman's Compensation Committee. The Pipefitters Union is a member of the Metal Trades Council of New London County which is the certified bargaining agent at Electric Boat. I am also the Chairman of the Occupational Disease Committee of the Metal Trades Council.

In early 1975, we learned for the first time that one of our members, Sammie Gray, had asbestosis. He was about 40 years old and was already totally disabled. At about the same time, we learned of the work of Dr. Selikoff and the Mount Sinai School of Medicine. We contacted Dr. Selikoff to explain the working conditions with asbestos at Electric Boat. In March of 1975, we brought one union member, Alan Eleazer, who had been a Pipe Lagger for about 17 years at Electric Boat to the Mount Sinai Clinic in New York City. He was examined there and found to have a clearly diagnosed case of asbestosis. We discussed the overall working conditions and problems at Electric Boat with Dr. Selikoff's staff. In July of 1975, the Mount Sinai team of Doctors and Technicians came to the union hall in Groton, Connecticut and examined about 200 people who had asbestos exposure as well as lead exposure. The preliminary results of this exam showed there were X-ray abnormalities consistent with asbestos exposure in about two-third of the people examined.

Dr. Selikoff and his team returned in the Spring of 1976 where he examined about 800 more shipyard workers at Electric Boat. These workers were from various trades some having a high degree of asbestos exposure and some having low exposure. The final results showed X-ray abnormalities ranging from 36 percent to 55 percent of all workers examined. For those workers with 20 or more years in the shipyard the range was from 36 percent to 73 percent. The 73 percent figure was found in our union of pipefitters which includes the pipe ladders. A copy of the survey is attached to this statement.

In the winter of 1976, the company hired its own physician to conduct a survey of the asbestos problem at Electric Boat. Although we cooperated with the survey, the unions have not been given the data, the findings or survey results of that test. It is believed however, that the survey included a very limited number of shipyard workers. Most of the people who were examined in the company survey had already been examined by the Mount Sinai Clinic in July 1975.

In the meantime, Sammie Gray, the first diagnosed case of asbestosis, had not been paid any compensation although he was totally disabled and the diagnosis



was clearly asbestosis. The diagnosis, in fact, had been made in the Fall of 1973. He was not paid compensation because Electric Boat had become a self-insurer on March 1, 1973. Electric Boat claimed that the responsibility of paying compensation should belong to the former insurance company as that was when the bulk of the exposure took place. The former insurance company claimed that Electric Boat as a self-insurer should pay the compensation because that was when the last asbestos exposure took place. The case was finally tried before an Administrative Law Judge of the Department of Labor under the Longshoremen's and Harborworker's Compensation Act in September, 1976. It was ruled that Sammie Gray was entitled to permanent total disability and that Electric Boat, as the self-insured, was obligated to pay. This decision was affirmed by the Benefits Review Board of the Department of Labor, and subsequently before the United States Court of Appeals for the Second Circuit.

In the meantime, Allen Eleazer, the pipe lagger who was first examined by Mount Sinai at its facilities in New York City, became totally disabled in the summer of 1976. He took a disability retirement, received social security benefits and the following summer, died of lung cancer, which was caused by his asbestos exposure.

Subsequent workman's compensation claims involving asbestos exposure have been filed. We are aware of about 75 claims that are now pending, although there are probably others, as well. Of the 75 that have been filed, approximately 10 have been tried before Administrative Law Judges and in all cases to date the claimants have been found to have been seriously injured by asbestos exposure or have died of lung cancer, respiratory failure or mesothelioma, a rare and fatal form of cancer, whose only known cause is asbestos exposure. We are aware of at least 12 people whom we believe to have died as a result of asbestos exposure of the group of 75. Six had already died when their claims were filed. 6 others died while their claims were pending.

Most of these 75 people have filed law suits against the manufacturers and suppliers of asbestos products for their failure to warn Electric Boat or its employees of the dangers of asbestos exposure. In addition they have filed a suit against the United States Navy for its involvement in specifying the use of asbestos insulation and for the actual supervision of the installation and removal of asbestos insulation in nuclear submarines without warning the workers. These suits are now pending in the United States District Court for the District of Connecticut and have not yet been resolved.

Electric Boat has purchased x-ray and pulmonary function equipment for the testing of asbestos related diseases as well as other occupational disease. However, there are no adequately trained personnel to operate this sophisticated equipment and arrive at what is a difficult medical diagnosis as to whether an individual has asbestosis, lung cancer or mesothelioma. Even the local physicians have difficulty in examining the various symptoms and clinical evidence to arrive at the diagnosis. We frequently find the local doctors are simply unable to tell one way or the other whether an employee's symptoms are caused by asbestos or some other cause. When the employee is referred to the experienced Mount Sinai Clinic, it is usually able to give a clear cut diagnosis one way or the other. Thus we have seen a vivid example of the difference between experienced and inexperienced medical personnel, dealing with a very sophisticated disease and its problems.

With the help of Dr. Selikoff, the local and International Unions, the Connecticut Department of Health and Congressman Christopher J. Dodd of the Second Congressional District of Connecticut, proposals have been made to establish a permanent occupational health clinic to investigate and treat and educate workers and their families, not only for asbestos related diseases but for all occupational diseases. A separate program would be established for the education of the medical profession in the area as to asbestos as well as other occupational diseases. The University of Connecticut Medical Center in Farmington, Connecticut is in the process of applying for a grant from the National Cancer Institute, and possibly the Occupational Safety and Health Administration. It has been a very long time, however, there are still no visible signs of progress being made in the establishment of the permanent clinic which is vitally needed as soon as possible. It is important to locate former employees, offer them and their families immediate physical exams and explain to them what they should do in the future.

Since the OSHA asbestos standards were established in the early 1970's, Electric Boat has phased out the use of asbestos insulation on submarines and has restricted the indiscriminate removal, of asbestos insulation from submarines being overhauled. Asbestos has largely been replaced by fiberglass. Fiberglass causes dust

which appears to be similar to asbestos. There have been no long range studies of fiberglass similar to those done on asbestos. Some limited experiments, indicate that it produces cancer in rats similar to asbestos. Nevertheless, there are no OSHA standards on fiberglass and it is treated more as a nuisance dust, similar to asbestos ten years earlier. Unless industry and the Government treat fiberglass with the same precautions that asbestos should have been treated, 20 and 30 years ago, we may end up with a similar national tragedy for our current shipyard workers. It is not enough to say that fiberglass is safe until proven to be dangerous. To protect the working man and woman, we must regard fiberglass as dangerous now until proven to be safe.

It is important considering the asbestos tragedy that has occurred in South-eastern Connecticut to remember that the manufacturers and suppliers of asbestos products knew as early as 1930 that asbestos was extremely dangerous to the health of those using it. Johns-Manville knew about this in 1930 after it commissioned studies by Metropolitan Life Insurance to investigate the extent of its workman's compensation hazard for its own employees. The U.S. Public Health Service was aware of the problem almost as early. Neither the Asbestos Industry nor the United States Government informed the users and consumers of asbestos products of the dangers. Furthermore the U.S. Navy exposed a whole generation of our shipyard workers as well as its own personnel to these dangers without any warning or without any restrictions as to protective clothing or protective masks and respirators. Some of the 75 claims, in fact, include civil service workers of the United States Navy who were needlessly exposed to asbestos fibers.

In recognizing the responsibility of all parties concerned, Electric Boat has paid and will be paying workman's compensation benefits under the Longshoremen's and Harborworkers' Compensation Act. It is important however, for the United States Navy and the American government to recognize its responsibility in respect to the innocent people who are now paying the price for having been kept ignorant for so long about the dangers. It is time to help establish proper permanent facilities to locate other shipyard workers and help to detect further asbestos-related problems, offer informed, enlightened medical care, and hopefully educate the workers and their families as to preventative measures that can be taken now and in the future.

**X-RAY ABNORMALITIES AMONG SHIPYARD WORKERS EMPLOYED IN SHIPBUILDING AND SHIP REPAIR: MAJOR CRAFTS—YEARS FROM ONSET OF SHIPYARD WORK**

Category	All groups			20 or more years	
	Number	Abnormal Number	Percent	Abnormal Number	Percent
All crafts.....	1,000	459	45.9	185	50.8
Painters.....	82	44	53.7	10/25	40.0
Machinists (outside).....	108	58	53.7	12/32	37.5
Pipefitters.....	121	66	54.5	25/34	73.6
Insulators.....	73	38	52.0	2/7	28.6
Electricians.....	104	55	52.9	23/34	67.8
Boilermakers.....	157	80	51.0	41/84	48.8
Welders.....	117	42	35.9	25/48	52.1
Carpenters.....	69	38	55.1	12/33	36.4
Total.....	831				
Total.....	1,000	459	45.9	185/364	50.8

Senator PROXMIRE. Thank you, Mr. Ballato. Mr. Eno.

**STATEMENT OF STANLEY W. ENO, JR., INDEPENDENT LABOR RELATIONS CONSULTANT AND FORMER INDUSTRIAL RELATIONS MANAGER AND SUPERVISOR OF LABOR RELATIONS, ELECTRIC BOAT DIVISION, GENERAL DYNAMICS CORP., GROTON, CONN.**

Mr. ENO. I would like to thank Senator Proxmire and the members of the committee for the opportunity to testify before you today and submit information.

I was a senior labor relations supervisor for Electric Boat for 4½ years. Also during that time, I was the manager of industrial relations for a special project at an atomic power station, and we converted that to a breeder reactor for Electric Boat.

I started on the S8G project, which is the Trident prototype at the Knolles Atomic Power Laboratory in West Milton, N.Y. I was instrumental in setting up and hiring and working out the union contracts for the company for the first construction units, and have been directly involved with the 12,000 to 15,000 union employees on a day-to-day basis in handling grievances, listening to their problems, and listening to management's side of the picture.

General Dynamics, Electric Boat Division, a company that has designed, developed and built more submarines, both nuclear and diesel, is the subject I will address in this statement. Through the years Electric Boat has been the "world leader" in submarine design and construction. The 1950's saw the launching of the first nuclear-powered submarine, the *Nautilus*, and each year since that time new and even more sophisticated boats have come from drawing boards of their designers, draftsmen and engineers eventually to be crafted, built and launched by dedicated and highly skilled workers. Most of the boats were delivered to the Navy earlier than their scheduled delivery dates.

In the early 1970's, Electric Boat bid on and was awarded a series of contracts to design and build the Trident submarine, a gigantic new and highly sophisticated boat that is expected, according to our naval experts, to be the "first line of defense" in the 1980's. In addition, the fast attack submarines known as the 688 class were being designed by the Newport News Shipbuilding Co. as replacements for the aging present nuclear attack boats. Both the 688's and the Tridents are exponents of the highest skills and technology systems available to modern mankind in submarine warfare.

Electric Boat has been awarded, by the U.S. Navy, contracts to build 18 688's and 7 Trident submarines totaling billions of dollars. To accomplish this tremendous building program, thousands of additional people had to be hired and trained to become skilled shipbuilders and support personnel, the facilities had to be built to provide construction areas, dry docks and fabrication centers. Procurement of parts, machinery and materials had to be started.

To accomplish all of this, numerous methods were used. Outside consulting firms were brought in to study whether or not the availability of manpower would be an almost, if not, impossible task. The area from which people could be drawn was not large enough to supply the buildup of personnel required to support this construction. But in the true New England spirit, Electric Boat plunged forward and attempted to hire thousands of people to fill the jobs.

Even though our plant is in Groton, we hire more Rhode Island people than anybody in Rhode Island. All these things were started and all these things had to be built up, and a herculean task had to be undertaken.

It was an impossible task, as I said earlier, but we used every possible fund we could get our hands on, CETA, WIN, antipoverty funds, and all available State funds and any other method we could get money from the State and Federal Government.

It should be remembered that we hired women, we hired minorities, hard-core unemployed, people who had never worked before and tried to make them into skilled shipbuilding mechanics. This caused other serious things within the shipyard. We had problems of sex, crime, and drug abuse. We had every problem that a major city would have right within our little shipyard.

I say "little." We had from about 15,000 people up to as high as 25,000 before last October. But the problem wasn't there. The problem was that we didn't train management people. We had, if you want to call it that, a half-baked—I should use a stronger word, but I won't—program for training management.

We would take a man and say, "Today you are a foreman of 10 men." Instead of 10 trained men, he would have as few as 2 or 3 trained men and the rest would be the new people right off the street, your wife, my wife, somebody's sister, somebody's brother. How you expected these people to do a job is unknown to me, and do a skilled job, requiring highly technical and sophisticated machines on the boats we were trying to build.

This was not possible, and trouble started. They changed management teams in the last 3 years three times, and I mean changed them from top to bottom. Mr. Joseph Pierce was manager for about 10 years during the time of the building of the *Nautilus* and all through there, and we enjoyed a period of great success in making money and delivering boats on time.

It should be remembered that every single, solitary penny that Electric Boat spent, whether wisely or foolishly, is U.S. Government funds, your money and mine, and I cannot impress on anyone how strongly I feel about this, the way it is thrown away.

I feel by poor management practices, you can waste more money sooner than you can in any other method that there is that I know of.

I am a senior citizen. I reached age 60 this past year. I have been in management and I have been with labor. I have been on both sides of the fence, and I know poor management can throw any company right down the drain. Here we are with Government money. We don't care where we spend it. Uncle Sam has plenty of money. We throw it here and there, and run into cost overruns. They blame it on the fact that the Navy changed designs. The Navy has changed designs on every ship that was ever built, and they will continue to change designs.

Modern technology requires them to do it, but you don't continue to add to it. You don't put everything that you can possibly think of into the cost of what you are going to charge the Government, except when you have a company like General Dynamics, which has basically no other customer. At Electric Boat they have no other customer, and at Fort Worth they have no other but the Air Force.

The GAO has backed up our claims on poor productivity. Management says, "Those men do not know what they are talking about. They are not in the yard." They say Mr. Eno hasn't been in the shipyard for the last 6 months. But let me tell you, Senator, and ladies and gentlemen, I talk every single day as an independent labor consultant to as many as 100 to 150 employees doing the work, and if they don't know what they are doing, nobody does.

If you don't know what you are doing, and whether you are producing something, that is to me poor productivity. They keep coming out with, "Mr. Camara, he doesn't know what is going on in the shipyard. Yet he talks to 50 or 60 stewards every single day who are responsible to him, and they report to him the incidents, the foolish incidents that they put into effect, the prison-like atmosphere that they put here."

Since Mr. Veliotis arrived, who was not a citizen—and this has caused a great deal of discomfort among the personnel. You cannot get a job as a sweeper at Electric Boat unless you are a U.S. citizen, and yet the man who is in charge of the entire setup is not an American citizen. The Navy came along and granted a special dispensation of some sort so that Veliotis can be made leader of the pack.

Mr. Veliotis is a brilliant businessman and a great shipbuilder, and I give him every credit in that respect, but as a person handling people, the man couldn't handle my dog. The man believes in the hard-fist method to get something done. You don't come into any plant overnight and start firing all of your top designers, all your top engineers, men who are one of a kind, who have come from the campuses and brought up directly to Electric Boat, who designed some of the most sophisticated systems that have come along, and have them told, "You have 30 minutes to pack the 25 or 35 or 37 years of material you have in your desk and get out. Don't stop anywhere."

The day after this man took over, we lost 3,000 salaried employees of all types. You can say I am sitting here with sour grapes. I am not. I am perfectly happy. I draw a minimal pension from them. I have been able to make ends meet.

My wife is on social security. We are very happy. There are just two of us. I have sons and daughters and 10 grandchildren, but when I go over and look at the unemployment line and see these designers and engineers who are one of a kind, as I repeat, on the unemployment line, broke because they don't know what to do, I say something is wrong, and again the national defense and the security of this country are in jeopardy at the way they are producing their submarines and the way they are treating their people.

[The prepared statement of Mr. Eno follows:]

PREPARED STATEMENT OF STANLEY W. ENO, JR.

General Dynamics, Electric Boat Division, a Company that has designed, developed and built more submarines, both Nuclear and Diesel, is the subject I will address in this statement. Through the years, Electric Boat has been the "World Leader" in Submarine design and construction. The 1950's saw the launching of the first Nuclear powered submarine, the Nautilus, and each year since that time new and even more sophisticated boats have come from drawing boards of their Designers, Draftsmen and Engineers eventually to be crafted, built and launched by dedicated and highly skilled workers. Most of the boats delivered to the Navy earlier than their scheduled delivery dates.

In the early 1970's, Electric Boat bid on and was awarded a series of contracts to design and build the Trident Submarine, a gigantic new and highly sophisticated boat that is expected, according to our Naval Experts, to be the "First Line of Defense" in the 1980's. In addition, the fast attack submarines known as the 688 Class were being designed by the Newport News Shipbuilding Company as replacements for the aging present Nuclear Attack Boats. Both the 688's and the Tridents are exponents of the highest skills and technology systems available to modern mankind. Electric Boat has been awarded, by the U.S. Navy, contracts to build 18 688's and 7 Trident Submarines totaling billions of dollars. To accomplish this tremendous building program, thousands of additional people had

to be hired and trained to become skilled Shipbuilders and support Personnel, the facilities had to be built to provide Construction Areas, Dry Docks and fabrication Centers, Procurement of parts, machinery and materials had to be started.

To accomplish all of this, outside consulting firms were brought in to study whether or not these aforementioned things could be accomplished. Their reports indicated that the availability of manpower would be an almost, if not impossible task. The area from which people could be drawn was not large enough to supply the build up of personnel required to support this construction. But in the true New England spirit, Electric Boat plunged forward and attempted to hire thousands of people to fill the jobs. CETA, WIN, Anti-Poverty Government Funds and all available State Funds were applied for and granted to Electric Boat to train Welders, Shipfitters, Pipefitters, Machinists, Carpenters, Painters, Electricians and the like. Women, minorities, hard-core unemployed were hired and the growing pains were unbelievable.

Problems were and are unbelievable. Drugs, alcoholism, sex and discrimination incidents became a way of life, there were too many learners versus skilled Mechanics to adequately perform the skilled tasks required to be accomplished. Unrest, fights and problems became a way of life as people tried to learn Shipbuilding Trades. A normal ratio of 3 or 4 Learners to one skilled Mechanic became as high as 10 or 12 Learners to one skilled Mechanic with no one learning anything and productivity dropping to tremendous costly lows. Internal politics caused almost daily changes in management and supervision at all levels. Each change bringing about new ideas or ways of combating the expansion. Most of the management personnel were inexperienced and untrained in the intricacies of Shipbuilding, costs of doing business, coupled with inflation, brought claims against the Government to the forefront and more management changes took place to try to find a solution, this is still going on.

The claims for cost overruns will at the present rate go into the Billions, for both the 688's and Tridents. General Dynamics has had problems in the past with the F-111 Fighter planes, and even now GAO reports indicate possible problems with the F-16's, but the Government is always available to bail them out. There is no doubt some justification for some of the cost overruns caused by required Navy design changes, the claims by Admiral Hyman Rickover of many of the things charged to the contracts as being fraudulent must be investigated. The attitude of General Dynamics and many of the other Defense Contractors is one of Uncle Sam, must foot all of the bills so that Company Officials can draw their millions of dollars of profit, salaries, benefits, stock options and the like, thereby adding to the inflationary spiral of the economy.

Productivity is still much below an acceptable level at Electric Boat, and continues to drop, and this has been verified by the GAO reports, the Navy, and every other investigatory agency involved in auditing the shipyard, when these charges are brought to light, Electric Boat Officials immediately claim, that the people making the charges are "Liars, rumor-mongers or worse." Yet I ask who knows better than the employee actually working in the yard each day as to whether or not he is performing any work? They inform us they are just doing whuser work, the Supervisors tell the workers "look busy, carry a wrench around with you, in case anyone is watching." Materials to work with are not available and don't seem to be arriving.

When workers, supervisors and others are trying to look busy for eight hours a day, either because of lack of materials or lack of direction by Management, trouble brews, this is evidenced by the considerable increase in the number of disciplinary warning slips being handed out to the workers each day, and by the abnormally large number of Union grievances being filed by employees for Contract violations by the Company.

Grievance and arbitrations have grown to the staggering amount of six to eight thousand under the present contract—1975-1979, compared to twenty five hundred or so under the 1972-1975 Contract, and two hundred or so under the 1968-1972 Contract. Arbitrations are scheduled two or three a week through 1979, which is unheard of in normal Labor-Management Relations. Labor Management relations have deteriorated to an all time low and with both the Metal Trades Council Contract twelve thousand Production and Maintenance Employees, expiring on June 30th, 1979 and the Marine Draftsmen Association expiring on September 30th, 1979, one can only look forward to a series of long and bitter strikes next year. This again causing additional claims for cost overruns on the 688's and Trident Submarines, as well as delayed delivery dates.

The present Labor-Management program of the Company under the recently appointed (October, 1977) General Manager is one of "Bolwarism" which is causing hate, distrust and harassment of the Union employees. It is also causing an 1000% increase in the number of cases going to the Arbitration step of the grievance procedure which is very costly in both time and money. The legal staff of the Company has been greatly increased and again the Government ends up paying these costs as a contract reimbursement.

Harassment, delay in settlement of problems of employees is not conducive to encouraging employees productivity and this in turn reflects in the eventual cost of the product to the customer; The U.S. Government. Millions of dollars, eventually charged back to the Government is being wasted on Lawyers and legal costs to peruse cost overrun claims.

Security, is another area that is being compromised by Electric Boat under their present policies. The Guard force has been cut from a high of about 115 men to about 75, thereby, making security enforcement of the shipyard become suspect, guards have been removed from the vital unprotected waterfront area and from the various boats under construction, patrol boats have been taken out of service and a general relaxation of security due to reduced manpower is in effect.

The U.S.S. Ohio, the first Trident Boat, which until a few weeks ago was only available in artist renditions is now on full display on the waterfront with pictures published in the local press, and on TV Stations, as well as the availability of pictures with telescopic lens cameras to be made by Foreign National vessels coming into New London Harbor. Newport News Shipyard which is of similar size as Electric Boat has during this same period stepped up security and has over 200 Guards protecting and controlling that shipyard.

Another area of suspect and in need of investigation is in the relationship between Supships, (U.S. Navy) and Electric Boat. Through the years this relationship has changed from an adversary type of Supervision and Control to one of friendship with Electric Boat even hiring retired or former U.S. Navy personnel for various positions within its management force. Joseph Pierce, Former General Manager came from Supships, Vice Admiral Joe Williams, recently retired Commander of the North Atlantic Submarine Force is now Operations Manager, Captain Wishart, retired, has been in charge of docks, etc., for many years, plus thousands of retired Submariners in various other salaried positions throughout the Shipyard. When the massive 3000 person lay-off took place in October, 1977 very few if any of these Ex-Navy personnel were affected.

The Lay-off last October instead hit 25, 30, 37 year veteran Engineers, Managers and other Supervisors and has seriously damaged Electric Boat's capabilities in the field of Research and Development for the future, a field that Electric Boat was the World-Leader.

Another bone of contention is the fact that the new General Manager, P. Takis Veliotis is not an American Citizen, and in order for him to be cleared to run the shipyard the Security Clearance of the entire yard had to be reduced to meet the clearance granted to its top man. Up until this time one could not be hired for even the lowest menial task unless he was an American citizen. This reduced clearance of Electric Boat also affects the type of secret work that can be assigned to the Engineering Department and could have a detrimental effect on our National Security for the future.

All of the factors cited in this statement are a matter of public record and in my opinion are tangible reasons underlying the cost overruns, the horrendous delays in delivery, the quality of the product and the general unrest and uncertainty of the future of Southeastern Connecticut's Economy, but most importantly the National Security of the United States.

Senator PROXMIRE. Thank you very, very much, Mr. Eno. Mr. Camara.

**STATEMENT OF ALBERT CAMARA, PRESIDENT, LOCAL NO. 1871,  
INTERNATIONAL ASSOCIATION OF MACHINISTS & AEROSPACE  
WORKERS, AFL-CIO, GROTON, CONN.**

Mr. CAMARA. I would like to thank you and the committee for asking me to speak here.

I am Albert Camara, and I am lodge president of one of the unions at Electric Boat. I was formerly employed by Electric Boat for over 12 years, and I have been a union official for over 6 years. I am prepared to testify before the Joint Economic Committee on my observations on the day-to-day dealings with the Electric Boat management with regard to the production and maintenance employees.

I was a member of the Metal Trades Council negotiating team during the 1975 negotiating sessions, which started in April of 1975 and culminated in late November of 1975. The production and maintenance employees were on strike from July 1, 1975, through December 1, 1975, when the contract we are now operating under was ratified by the members.

This contract expires June 30, 1979. It is my opinion that the 5-month strike was welcomed by Electric Boat management as it offered an excellent excuse to cover construction delays on the 688 and the Trident submarines for which the company did not have adequate construction facilities to proceed with manufacturing.

The massive \$140 million land-level buildings and the other support facilities were not ready to be used for submarine construction and the strike gave the company a reason to cover their delays and complete the necessary facilities for construction.

In addition, the Quonset Point Naval Air Station Fabrication Facility was being set up and employees trained to man the facility. The Quonset Point plant, being in use now, was not unionized and, therefore, operated as a training facility during the 5-month strike.

It should be remembered that the Electric Boat Division of General Dynamics has only one customer, the U.S. Navy, and that each and every expenditure comes out of the pockets of the taxpayers of this country, plus a percentage of profit for the corporation.

Keeping this in mind, it can be seen that Electric Boat Co. has applied all the millions and millions of dollars that the poor planning and management decisions resulted in to the cost overrun funds that they are trying to get from the Navy at this time. I am not an accountant and, therefore, cannot tell the committee how these claims are manipulated to appear legitimate. I can only state the facts as they are with regard to the workers who are constantly demeaned, harassed, and misdirected, and blamed as a smokescreen for management to cover their accounting manipulations with the Navy.

Constant management changes, most due to incompetent and untrained people being put in charge of various departments, have taken place on a continuous basis since 1973 when Electric Boat started getting the contracts for the 688 and Trident submarines.

Supervision had made Electric Boat the greatest skilled and competent shipbuilding company in the world, a company that designed and built the complicated and sophisticated modern nuclear submarines, starting with the *Nautilus* in the 1950's, a company whose employees were dedicated and proud of their skills, their ability to deliver safe, efficient and quality products, not 2½ to 3 years late, but many months early.

Starting in 1973, and through the present, suddenly it was a company of internal dissension, lack of leadership, lack of planning and a place that appears to be only interested in corporate profits, all at Government expense. The contrived and provoked labor problems,



strikes and other mismanagement devices used by Electric Boat are only an excuse for cost overrun claims and a way to take more money from the Government on which they get their excessive profits that are reported each quarter. The company has not paid a dividend to its stockholders for many years, but a chosen few have continued to receive enormous salaries, stock options, and personal benefits.

My sole interest in bringing these problems before the Congress is to request an investigation into the whole picture and to bring stability, job security and long-term economic growth to the Connecticut-Rhode Island area. It is my further goal to have the Government receive a quality product, expertly built and delivered on time to protect our country, this product being the 688 and Trident submarines that are to be our "first line of defense" in the years to come.

Thank you.

Senator PROXMIRE. I want to thank you gentlemen for abbreviating your prepared statements and for your excellent oral statements.

Gentlemen, what we are concerned about, as I am sure you realize is the colossal overrun here, the enormous increase in cost above the contract.

Mr. Eno, you put it extremely well when you stated the disregard many people have for the dollar. Unfortunately, that is not confined to Electric Boat, but it seems to me very conspicuous in that operation.

We are concerned that between 1972 and 1977 there was an explosion of cost overruns, excess costs, of claims on the Federal Government.

Let me ask you about that. I will ask you some questions about the management reorganization of last fall. Beginning in 1972, Mr. Eno, there was a large buildup of the work force to correspond with the increase in Navy ship construction at Electric Boat. You said the problems of recruiting thousands of additional workers was extraordinarily or virtually impossible, unbelievable and so on.

Why were the problems so difficult?

Mr. ENO. Senator, there are not that many people living in the general area from which you can draw employees and people to work at Electric Boat. We set up programs to bus people in—

Senator PROXMIRE. From how large an area did you draw? How close are you from New York?

Mr. ENO. New York City, 145 miles.

Senator PROXMIRE. What is the nearest big city?

Mr. ENO. The nearest big city would be Hartford, Conn., and that is 52 miles to the north. Providence is 51 or 52 miles to the northeast. New Haven, which doesn't compare in size to either Hartford or Providence, would be the next largest city. That is 50 miles to the south.

Senator PROXMIRE. Fifteen?

Mr. ENO. Fifty, five-zero.

We have no area closer than 50 miles to draw on people. We set up buslines in conjunction with the State of Connecticut and Government funds for transportation. We set up a subsidized bus run. We were running at the peak as many as 50 to 60 buses a day for each shift, bringing people in and taking them home again. We set up a van pool system where we have 15-passenger vans, and we had 40 or 50 of those, which we give to one employee who lives the farthest away and then he brings in 10 other employees with him.

They tried the ferryboat system to bring the people up the river and across the river to alleviate the traffic situation, because you are on a peninsula, and you have a horrendous traffic problem and a parking problem.

Senator PROXMIRE. You brought in young people, old people, women, and you did your best, I am sure, to bring in minority groups?

Mr. ENO. Very definitely. We made all kinds of records and goals for minorities in our affirmative action program, by training and working on every type of employee we could get. In the CETA and WIN programs these were mothers who had to work certain shifts, either unwed mothers or others paid under Government programs. We brought those kinds of people into training.

We tried to make them pipefitters and painters and shipfitters.

Senator PROXMIRE. This is extraordinary. This reminds me of the fact that in World War II we had a tremendous increase all of a sudden, 1942 and 1943 specifically, of production, and we brought in a whole of a lot of people to build all kinds of planes, tanks, ships, and so forth. We had a lot of success, and the unemployment dropped down to below 2 percent at one point. There was some inefficiency and, of course, we had a great motivation because of the war.

How do you account for the fact that we were able to do a job there with reasonable efficiency and here with far more slack in the work force and in the economy generally, particularly in the northeastern part of our country, they were unable to bring in competent people to do the job?

Mr. ENO. Basically because of the fact that, I feel, and this may date me a little bit, but the modern-day worker does not have the real incentive that the older men had, and there was not the push for war products and patriotism and the rest of the thing behind us at that time. They were perfectly happy when they could make \$127 a week on unemployment, not to come to work.

We had to force people to come in to work. Connecticut has one of the highest unemployment compensation funds, and also the largest debt to the Federal Government, borrowing to pay off those funds, of any State in the Union.

This was part of the—the modern-type living, the way the people only need 2 or 3 days' work, and they are happy to take the rest of the week off if they are not happy in their jobs. This is something that in the 1950's, when the *Nautilus* was being built, and the other classes, the 671 boats and that series, we didn't have that problem.

For some reason or other the people who were coming in to work then were more interested in coming in. They weren't fighting for a cause, but they were coming in to make good money and to have a day's work and to have a halfway decent quality product that they were proud of. When we have a launching—

Senator PROXMIRE. It is a matter of morale, of pride in the product, and also of a feeling that what they are doing they are doing efficiently, and they are, as you say, reasonably satisfied with the working conditions and they don't dread going to work. They look forward to it.

You said that drugs, alcoholism, sex, and discrimination incidents became a way of life. Can you expand on these problems?

First, drugs. What do you mean by that, and does this mean in the community or right at the shipyard?

Mr. ENO. Within the shipyard itself, they had to beef up and have undercover investigators going out to check on people.

Senator PROXMIRE. The people were taking drugs while they were working?

Mr. ENO. They were smoking marihuana during the lunch hours and taking pills.

Senator PROXMIRE. Was this reflected in the quality of their work, slow it down, and would they do inaccurate work because of the influence of drugs, would you say?

Mr. ENO. I would say this was brought about by poor management practices, seeing that they had enough work to do, so they had time to stand around and smoke pot or pop a few pills or pull a bottle out of their pockets and take a drink.

Senator PROXMIRE. My question is, Do you think this practice actually contributed to lower quality and less ability to do the job required, or was it simply a demoralizing element in general here?

Mr. ENO. Very definitely, a person is not going to be able to perform at their peak if they are flying pretty high.

Senator PROXMIRE. Alcoholism. They were drinking heavily?

Mr. ENO. Alcoholism is something that a shipyard always had a problem with. They cracked down on it, and it is now recognized as a sickness, and programs were set up with the company and the union, to help people rather than fire them.

Senator PROXMIRE. I think that is right. We have that problem in plants all over the country. We have it in Wisconsin, and there is nothing unusual about it.

The question is, was there excessive and unusual drinking on the job that was obviously interfering with the work?

Mr. ENO. Not on the job except in the winter when it is cold out there, and the men would bring a half a pint with them to warm up their insides to work on the hulls of the boats. This is recognized.

Shipbuilders have always been heavy drinkers and always managed to build good quality products, but when they didn't have direction to keep them busy, they got colder and drank more.

Senator PROXMIRE. How about sex?

Mr. ENO. When we started bringing the women in the shipyard, we started running into problems with the boys not used to having girls around them, running around braless with their T-shirts bouncing, if you want to call it that, and I am not trying to be funny on this. But this is a natural fact, production is slowed down. There is no doubt about it.

You see some girl walking along, and she looks pretty good. You are going to stop what you are doing and take a look. If you multiply this, that adds up—

Senator PROXMIRE. That is the kind of thing that I imagine happens in a lot of places. I want to know how this was unusual. Were there prostitution problems?

Mr. ENO. Not paid prostitution per se.

Senator PROXMIRE. That is the only kind of prostitution. If it is not paid—

Mr. ENO. Some of it can be free. They call it "for love," I believe.

We have had a lot of problems this way, of people sneaking off, and there are a million places to hide in the shipyard—over the ways,

under the ways, in the various compartments—and we will start to have a slight increase that built up in time, especially on the second and third shifts, of hanky-panky going on, and this, of course, takes away from production.

Senator PROXMIRE. The point of importance here is whether or not this was sufficiently widespread so that it did result in people not doing work, and instead engaged in other activities.

Mr. ENO. That we would find would be reported to us by supervision was enough to make a small reduction in known production, but we don't know what we didn't catch.

Senator PROXMIRE. How about discrimination? You spoke about how there was an attempt to bring in minorities and minorities were brought in. What do you mean by "discrimination" and how did that affect morale?

Mr. ENO. When you start intermingling various people—it was basically a white male shipyard. When we started to hire under our affirmative action plan and people were brought in of all races, creeds, and colors and sex and so forth, there were the usual problems that confronted the country in the past when the races started to intermix, working side by side. You talk about prejudice in the South, and I have lived in the North and have been a Yankee for my entire life, and they are worse than anyplace I have ever seen.

Senator PROXMIRE. That kind of prejudice is something that is endemic to a lot of rapidly expanding businesses. What I want to know, if this is unusual, whether there was discrimination on the part of management, the blacks or the Spanish-speaking people being given jobs that were less desirable and being treated in a discriminatory way.

Mr. ENO. By the very nature of a union shop, you will have this happen. They will get the lesser jobs, because they come in at the bottom of the seniority list. That is something that we work with throughout the country.

Naturally, the lesser jobs, the least desirable, they would come in the painting department in what we call painter-cleaners. That meant the women and minorities were being hired and quotas were being set for various departments.

Senator PROXMIRE. You don't feel this was discrimination in the sense that everybody new on the job suffers in a sense from discrimination, because the people who are senior have a better job. What I want to know is whether this was unusual, whether there was a marked degree of discrimination that had an effect on production.

Mr. ENO. I would say to an extent. That is, we had disruption of production because of fights, and because of racial slurs being made to individuals. You had a company management that would fight you tooth and nail from the industrial relations department, because you were going to send them eight or nine minority people. I hate to call it a quota, because we are Americans, and there shouldn't be anything such as quotas. People would say, "You are going to get 18 women to bring your quota up, some will be black, some Spanish, and some Indians" and so forth.

The old-time supervisors would say, "I am not going to have people like that in my department." In the 60-day probation period, after spending Government money, they would be let go on the 58th day,

because they weren't under union protection yet, as unsatisfactory on probation.

Senator PROXMIRE. What you needed, you said, was management training—in other words, management sensitivity—so they would understand the problems they would face. Is it your contention that the sensitivity training and this kind of management training was not provided adequately?

Mr. ENO. Very definitely. We had supposedly a 40- to 60-hour period where new foremen who were going to take over a group in the yard would go through a series of lectures by various management people. I myself gave a 3-hour lecture on labor relations and their responsibilities under the labor contracts.

What would happen would be: "We can't afford to send a man up," so instead of a class of 40 or 50 you were supposed to have, you had a class of 10 or 15. Some of the old managers would say, "I will train you down here, because we will do it our way anyhow, and if it violates the contract, so what the hell?"

Senator PROXMIRE. What about the fights? Were they frequent? Fights always break out, but to what extent did this contribute to the big overruns?

Mr. ENO. When you add all these things together, Senator, they do add up. If you have a fight, no matter how small, 40, 50, 60, 70, 80, to 100 people who are working in the general area, they know there is a fight. What do they do? They stop work and they stand with their wrench in their hand or their welding torch and watch the fight. They are not working.

Senator PROXMIRE. What I am asking, Mr. Eno, is how uncommon this is. You and I agree these will break out anywhere and can break out anywhere. If there are many of them, then I would agree this is a contributing factor. If it is an unusual incident that breaks out once in a while, then I think we have to recognize that this is part of the human beings not being able to work together consistently all the time.

Mr. ENO. This was a contributing factor back in the 1974-75 period, and again when the 1976-77 buildups were being done. We had buildups in 1974 and 1975, and there was a slowdown during 1976. In 1977 we started—in late 1976—we started another massive buildup, and whenever you brought all these new people in, they had to become acquainted with the yard, and there would be a definite increase in the amount of lost production because of molding the people together and getting them to work—trying to get them to work as a team.

Now, with management's inefficiency to do this, it took longer than it should, and it still isn't in effect. We still have people who are not trained. I don't know how long we will have them, because they constantly are hitting all the unions with layoffs. There were no more massive ones after the horrible publicity the company got after the massive layoff of the salaried people, but every week a hundred pipefitters, a hundred shipfitters, 100 welders—this way the paper will no longer publish the fact that there is a hundred, because it doesn't bring it to the attention of the public that they are losing these qualified men.

Then they spend your money in line again to train.

Senator PROXMIRE. Mr. Camara, you worked in the shipyard during this period. Do you agree with the way Mr. Eno describes the labor force problem?

Mr. CAMARA. The labor force problems, I would like to explain what you said about during the Second World War where they could hire a lot of women and make a concerted effort to build a ship or a boat, as we refer to submarines. You can no longer do that.

Our product line has changed completely. It is a very sophisticated computer-type operation. So I don't think that that could be done any longer.

Senator PROXMIRE. I am going to ask Senator Weicker to go forth.

Senator Weicker, I have to go to the floor right now. I have a statement I have to make, and they will put me in at this moment. I am sure you understand that.

Senator WEICKER. I certainly do.

Senator PROXMIRE. Senator Weicker was a very valuable member of this committee a few years ago. We welcome him, particularly since he is the Senator from Connecticut and particularly interested in the problems.

I will be back in about 15 minutes, Senator Weicker, and then we will put you on.

Senator WEICKER. Thank you, Senator.

[A brief recess was taken.]

Senator PROXMIRE. The subcommittee will come to order.

I want to apologize to Senator Weicker. That was unfortunate, but I think he understands how these things happen.

Senator Weicker, we are delighted to have you. Go ahead in your own way.

#### STATEMENT OF HON. LOWELL P. WEICKER, JR., A U.S. SENATOR FROM THE STATE OF CONNECTICUT

Senator WEICKER. Thank you, Senator.

Any time one of us complains about the other running around here, we are all going to get caught short on that. We can't be at all places at the same time. I know the Senator from Wisconsin has broad interests here, and very frankly brings a tremendous expertise and precision to his work. Wherever you are, I know the right thing is being done—no complaints.

Mr. Chairman, I just would like to spend a few minutes, not offering much that is new, but expressing myself as to the matter before your committee.

There is no question of the fact that the past few years have been difficult ones, but the concern that I express today is for the people who work in Electric Boat. No one will deny the fact that the products that have come forth from Electric Boat have been excellent. They are superior. They are the best. Nobody has been able to match them.

There is also no question in my mind as to the skills of the people who work at that facility. They are the personification, if you will the New England craftsman. On the other hand, there is no question as to the failure of leadership, both at the union level, at the corporate level, and at the Government level and I would hope that in the work of your committee you can help to resolve those failures without penalizing the men and women who work at Electric Boat.

I believe that we are already on the way to resolving many of the problems that your capable staff has brought to our attention and

which you have heard about here this morning, and I have to give great credit to Senator Ribicoff in that regard, for getting the parties together and coming forth with some pretty blunt talks, talks—I might add—that were participated in by the Connecticut and Rhode Island delegations.

I don't think more finger-pointing or listening to the finger-pointing between management, the Government, and the unions is going to do any good. To me, the problems are quite clear-cut, and you will hear more about them here this morning.

What should be done now is to have those in leadership capacity start to display the traits that are a normal part of leadership, and get their act together so that the country will have the benefit of the ships produced by Electric Boat, which, as I said, are the finest in the country.

I think animosity and the failures that have been hammered away at are unduly penalizing men and women whose livelihood, and those of their families, depend on continued work at this facility. So I am all for what you are doing, and I am for the process of getting the show on the road and in the correct way.

Senator PROXMIRE. Senator Weicker, I want to thank you very, very much. I think what you say is very wise counsel for the committee. Incidentally, you have been of most constructive assistance to the committee. The staff tells me that you have been most useful.

I think it is interesting that you feel the union and the corporation and the Government all have a share of the responsibility in what has happened here. Our concern isn't to point the finger, and I think you are right, that we shouldn't try to find a scapegoat here. At the same time I think you would agree with what Mr. Eno said when he indicated his deep concern for the waste involved, the enormous size of the claim, the fact that we have gotten to a point where there are hundreds and hundreds of millions of dollars involved.

The overall claims of all the shipbuilders in this country against the Navy in 1969 were \$100 million, which was big. Now they are \$2.7 billion. Much of this, of course, is Electric Boat.

We are trying to find out what we can do to correct the lack of productivity, and the general efficiency that is responsible in no small part for these enormous and very, very expensive, highly inflationary, highly burdensome overruns, and I think what you have told us here this morning is good advice, and we certainly want to proceed in the most constructive way we can to get at it.

As far as I know, the question has never been asked before, at least not by a congressional committee, and not publicly, as to why do we have this appalling lack of productivity. What is the reason for it? That is what we want to get at here, and I think we have made some progress here this morning.

These gentlemen have already contributed considerably to my understanding of what is wrong.

Senator WEICKER. As I said, Mr. Chairman, I am all for the task you are embarked upon, because we have a dual responsibility. We can't be just parochial. Yes, I am from Connecticut and the contract is coming into my State. I realize, however, that with respect to future contracts coming into my State it depends on the excellent performance of the ones we have.

I have the dual responsibility of representing my State and the national interest. I observed through the strike of 1975 the callousness of the management, the current layoffs, and the Navy, this warfare, if you will, at the highest echelons, that has as its victims the ordinary working man and woman. That is where the burr is, and I don't think they should be made to suffer.

Senator PROXMIRE. Thank you. You have been helpful.

Mr. ENO, you said the ratio of workers went from 6:1 to 10:1 or 12:1.

Mr. ENO. The significance is this: The learner who comes into the shipyard is not expected to be productive until he has been there, say, a year. He can do minor tasks. He can hold the end of the pipe while the skilled pipefitter bends it or threads it or whatever he has to do.

Senator PROXMIRE. So it is the turnover?

Mr. ENO. Yes, the turnover kills you. You have Mr. Jones today and Tom Smith tomorrow trying to learn the job. The skilled men, who are the best teachers right on the job, show them the shortcuts, the way to do it correctly, but also how to get fast productivity and the best quality. They just can't handle five, six, or seven or eight or nine learners assigned to them to try to do the job.

Senator PROXMIRE. So the key is to find a way of cutting down on the turnover and maintaining the willingness of people to stay with the shipyard for months and years and years, as they develop this capacity so that there are skilled workers there and more skilled people there, more experienced people than you have new people?

Mr. ENO. That is correct.

Senator PROXMIRE. What about the availability of materials during the 1972 to 1977 period. Do you know whether the workers had the materials required to do the jobs they were hired to do, or were there chronic shortages of materials?

Mr. ENO. I never had any occasion, and I had many colleagues that were in the procurement department, and I worked with them as their labor representative; representing the company for that particular department, I never saw any that was apparent to me.

Now, I would not be privy to all the 10,000 tons of HY-80 steel due that hadn't arrived, but I never heard them complain about shortages of materials in those days. The men had work to do, the work apparently was getting done from 1972 to 1975. But as you know, Mr. Veliotis—one of the first things he did, as any good businessman does, is take an inventory. Electric Boat had not had a complete materials inventory taken, and I believe the figure was in more than 25 years. How you can run a business and not know what products you have got and what is in the pipeline—

Senator PROXMIRE. I am trying to get at what the effect of that was. One way that might show up might be shortages of various kinds. If you don't take inventory, you don't know what is missing, and you wouldn't run into the shortage until you find it is not there.

Mr. ENO. Yes. Now, that is happening, men are reporting to us in the shop.

Senator PROXMIRE. Now, have you a perpetual inventory system?

Mr. ENO. It is not set up yet. The pipeline is—

Senator PROXMIRE. You are saying there were not shortages between 1972 and 1975, but there are shortages now because of lack of inventory accuracy?



Mr. ENO. We are running behind on delivery, but every single week you are getting layoffs because of lack of work. How can you have lack of work when you are running 2½ to 3 years behind in your deliveries?

Senator PROXMIRE. Could you comment on this lack of materials, whether or not you think that has been a problem, Mr. Camara? Would you pull the microphone over?

Mr. CAMARA. Yes.

In the latter part of 1977 it was reported to our office on a daily basis that the employees did not have sufficient materials to work with. That the company had stopped purchasing materials; and that goes right up until today as far as we know.

Senator PROXMIRE. But you in your statement, and Senator Weicker just a minute ago, mentioned the 5-month strike of 1975. Were the shipyard's operations entirely shut down during that period, and how long did it take after the strike was ended for the work to resume?

Mr. CAMARA. The work was never shut down. The company used supervisory personnel. The land level construction programs went on full scale. The company put in a special road just for the contractors a ¼ mile away from the main plant.

Senator PROXMIRE. I want to get your side of this thing.

In your opinion, did the company management force the strike on workers?

Mr. CAMARA. Yes, they did.

Senator PROXMIRE. Did management prolong the strike intentionally and prevent a settlement?

Mr. CAMARA. Yes, they did in my opinion.

Senator PROXMIRE. Would you explain that?

Mr. CAMARA. Yes. On June 30, 1975, when we were about to strike, the Federal Mediation proposed an extension of the contract at approximately 10 o'clock in the evening. We were scheduled to strike at 12 o'clock. But without the union having any say, without the union negotiating the extension—and they brought it out again at 11 o'clock in the evening, with the stipulation—

Senator PROXMIRE. You say the Mediation Service did this?

Mr. CAMARA. Yes, they did.

Senator PROXMIRE. That is the Government?

Mr. CAMARA. The Government. Again, at 11 o'clock they brought the extension out with the stipulation that it was nonnegotiable. Therefore, we were forced to reject it.

We didn't even know all the provisions of it.

Senator PROXMIRE. This was a mediation that was nonnegotiable?

Mr. CAMARA. Yes, job sacrifice.

Senator PROXMIRE. You say the Mediation Service itself took a position the union could not accept?

Mr. CAMARA. They did.

Senator PROXMIRE. Why do you believe Electric Boat wanted the strike continued for 6 months, and how do you support that view? Although you haven't said that, I assume it has been said by union members in the past. The staff prepared the question.

Mr. CAMARA. The systems in the yard for the Trident class and the 688 class, none of them were operational. They needed time to erect these buildings. The graving dock for the Trident wasn't finished. They just weren't ready to handle the construction project.

**Senator PROXMIRE.** You say the management wanted the strike to continue because they weren't ready?

**Mr. CAMARA.** Yes, in my opinion, I truly felt that, from the way negotiations went. We finally settled the contract in Boston in 2½ to 3 days after running all over the country, Washington and—

**Senator PROXMIRE.** Why would management want a strike? Wouldn't they be hurt by it?

**Mr. CAMARA.** I don't think so. I think that that was a good excuse to the Navy for not starting the program back in 1975.

**Senator PROXMIRE.** Mr. Eno, can you explain that kind of attitude? I would think that would contradict their interests.

**Mr. ENO.** It is a known fact, Senator, that many times in labor-management relations—having sat at negotiating tables for many companies such as Fairchild Aircraft back in 1972, the United Auto Workers was the union, and as a business agent, and on the management side, plus many other items since then—a strike is welcomed. You don't come out and say that it is welcomed though.

**Senator PROXMIRE.** In this case, is the strike welcome? That is why I want to know and if so, why?

**Mr. ENO.** In my opinion, yes, because facilities to go ahead with full production at an accelerated pace that they should have been at, were not completed. The graving dock, the \$140 million construction of a land facility—

**Senator PROXMIRE.** So without the strike they would have had an embarrassing explanation to make. They would have been able to go ahead and the inability of management to act would have been apparent, is that right?

**Mr. ENO.** That is right.

**Senator PROXMIRE.** The strike, then, was their means of getting out of actions which they were unable to take?

**Mr. ENO.** That is my belief.

Also, if you remember, Senator, that labor problems, strike costs, and loss of production are acceptable reasons for cost overruns in most Government contracts.

**Senator PROXMIRE.** OK. That is an element, too.

As a former management official, do you agree that the strike of 1975 was forced by Electric Boat management?

**Mr. ENO.** I repeat what I said a few minutes earlier to a similar question. I have reason to believe that there was not an honest effort to negotiate on the part of either side, but basically, management did not try to negotiate. They brought people down to Washington and sat around in the hotels for weeks at a time, without even meeting. It was not because the unions at that time didn't want to meet. There seemed to be a foot dragging, with all of the calling of signals being done from St. Louis, as had always been done in General Dynamics negotiations.

**Senator PROXMIRE.** Were you present at any management discussions where the matter was discussed, and if so, can you tell us what was said during the discussions? Did management indicate they were interested in having a strike?

**Mr. ENO.** I was not. I was at the Groton Shipyard during the strike in charge of the labor relations department, attempting to get workers who felt they wanted to come back to work, advising them of their

legal rights and how to come back to work. The management said, "The plant is open, we will see you are protected to come through the picket lines," et cetera.

We tried to encourage people to come back to work. These people ended up in a very bad position after a strike, because they are disliked and hated and called "scabs" by their fellow workers, and most of them don't last. You lose people. You don't gain any real productivity because your experienced and qualified men are out on the street.

Management people—these people would be the runners and the helpers and things like that. That is about all they were qualified to do, to the management people who were attempting to maintain some sort of production, which was very minimal.

Senator PROXMIRE. Mr. Ballato, you testified about the asbestos problem. Is it your testimony that the company failed to take precautionary measures to protect their workers from this disease, even though it knew or should have known about the dangers of working around asbestos?

Mr. BALLATO. That is correct, Senator. In many cases management was very lax, and left it up to the individual workers whether or not he wanted to wear a respirator.

Senator PROXMIRE. Wear a what?

Mr. BALLATO. Wear a respirator.

Senator PROXMIRE. A mask, so that you wouldn't inhale the fumes?

Mr. BALLATO. Yes, Senator. I believe that is under the OSHA requirements. A lot of supervisors left it up to the discretion of the workers whether or not they wanted to wear them, and if a worker didn't go to his supervisor and say, "I want a respirator," he never got one.

The area where there were semiskilled people or skilled people, who were not aware of the hazards of asbestos, were never told about them. They never wore them and never knew they had to wear them.

Senator PROXMIRE. How many workers came down with asbestosis, and how many died from it, to your knowledge?

Mr. BALLATO. Senator, the actual number, I can't be perfectly precise, being that all these claims are being handled by an attorney. I do know that 6 people have died—excuse me, Senator—12 people have died. Six people died before their claims were filed and six people after the claims were filed.

Senator PROXMIRE. These are all workers at Electric Boat who had been exposed to asbestos?

Mr. BALLATO. Yes, sir.

Senator PROXMIRE. You don't know how many have come down with the illness who have not died?

Mr. BALLATO. Senator, right now there are approximately 72 claims that are being filed by the attorney. I really don't know how many other people are affected at this point.

Senator PROXMIRE. You mentioned the medical examinations performed by Dr. Selikoff. Did he come to Groton at the request of Electric Boat management, and did he perform examinations on Electric Boat premises, or is it correct that the company refused to allow him to examine the workers at the shipyard?

Mr. BALLATO. Senator, we requested Dr. Selikoff to Groton. There was a problem with respect to examining people. There were two clinics. In the first clinic in 1975 they examined 200 people. The results were sent to the company. They felt at that time it wasn't really a problem.

Shortly thereafter, in early 1976, they hired their own physician, a Dr. Gansler from Boston, who came in and examined all the people that Dr. Selikoff had already examined. We never received those studies. We can only assume that they don't feel there is any additional problem, because they haven't examined anyone else.

Senator PROXMIRE. Is it practical or necessary to examine the entire work force for asbestosis, or would it be adequate to examine those who had been exposed to asbestos, and that might not include all the work force?

Mr. BALLATO. Senator, we don't know how many people in the shipyard have been exposed. Electric Boat said they stopped using asbestos in 1973. They haven't stopped overall. They still use it on a limited basis.

Senator PROXMIRE. Have you asked the company to have all the employees examined?

Mr. BALLATO. Yes; we have, sir.

Senator PROXMIRE. What was their response?

Mr. BALLATO. That there was no problem and no reason to examine them.

Senator PROXMIRE. Has this had an effect on morale? Do people express a reluctance to continue to work for the company because of their fear of getting this disease and dying?

Mr. BALLATO. Senator, I don't know how to address an answer. It is funny, Mr. Eleazar, he knew he had asbestos, but he always tried to perform his job. They are not really concerned with leaving the shipyard or trying to blame everyone.

Senator PROXMIRE. I don't necessarily blame people, but I could understand why, if you hear there is a disease that can be lethal, people are dying from it, and other people are seriously crippled, that people would be reluctant to work there, and you need workers, you need good workers.

In your judgment, has there been any substantial number of people who would otherwise work there who refused to work because of their concern about this disease or not?

Mr. BALLATO. No, sir.

Senator PROXMIRE. It has not been a factor in that way?

Mr. BALLATO. No, sir.

Senator PROXMIRE. Has the use of asbestos been entirely discontinued in the shipyard, or is it still being used?

Mr. BALLATO. It is still being used, but on a limited basis.

Senator PROXMIRE. In your judgment, does it still constitute a hazard to the health of the worker?

Mr. BALLATO. Yes.

Senator PROXMIRE. What proportion of the workers are exposed to it, 10 percent, 50 percent?

Mr. BALLATO. I don't think we can put a number on it, because I don't know the actual amount. In one instance, the asbestos pads they are using are portable pads. They are thick pads that go on

components. They are not manufactured by Electric Boat, but when installing these on all submarines, it is very difficult to put the pads in place, and they have to be banged in with mallets, and that causes the dust to be in the air.

So all I can say, not to use a definite number, when these pads are being used at some time or other, people could be exposed to asbestos.

Senator PROXMIRE. Is there a clear consensus, an agreement on the part of everybody that the 12 people you said died of asbestosis did actually die of that?

Mr. BALLATO. Yes, they did, Senator.

Senator PROXMIRE. There is no dispute, the management doesn't deny that and say it was something else?

Mr. BALLATO. The only thing in one of the cases, the insurance carrier—in the timespan, there were three insurance carriers before Electric Boat was self-insured, and the only problem was what insurance carrier would be liable. There was no question as to the asbestosis, but who would be liable to pay.

Senator PROXMIRE. You mentioned Fiberglas as a substitute for asbestos.

Mr. BALLATO. There is no requirement by OSHA on the use of Fiberglas. It is a nuisance dust. We had several people who had to leave the shipyard because of a rash.

Senator PROXMIRE. You say that is a nuisance dust?

Mr. BALLATO. The only tests I know of are those where Fiberglas was used on rats, and the rats subsequently died. Those who had to leave the shipyard because of the rash—I am aware of several people working on a barge where Fiberglas was used. They had nose bleeds and eye irritation, and had to leave the barge.

Senator PROXMIRE. Has the company taken steps to protect the workers from Fiberglas dust? How would you describe the conditions surrounding the use of Fiberglas?

Mr. BALLATO. They have taken no precautions. We have three safety men on the first ship, and they are many times called to the area of the shipyard where it is worked on extensively, and there is nothing they can really do about it. Management just says that it is a nuisance dust. There are no requirements and no hazards, and no precautions are being taken.

However, with asbestos we use the respirators.

Senator PROXMIRE. This is a matter of very serious humanitarian concern. At the same time we have a responsibility here with respect to overruns and with respect to productivity. Let me ask you once again: Is it your position that while this should be corrected, it has no significant effect on productivity, no significant effect on morale, or does it have a significant effect on morale and productivity?

Mr. BALLATO. Sir, I really can't answer that question, to be perfectly honest with you, whether it does decrease the productivity, because of people not wanting to work with the materials. I talk with people to work in the areas, and members of my local union. I talk to them extensively, and they never mentioned at any time the way they slow down because they don't like working with the materials or just quit their jobs.

I am not saying it is not possible, but I don't have any definite, constructive proof at this time.

Senator PROXMIRE. Mr. Eno, do you have any judgment on that?

Mr. ENO. My opinion on that, Senator, is that if you are working in an area where the consequences are uncomfortable and you are getting nose bleeds and eye irritations and things of that nature, you are certainly not going to produce at your maximum level and, therefore, productivity again is reflected—reduction in productivity would be reflected.

When you have all this together, that is where you get the problem, all the things we brought up today. It might sound like minimum use in some areas, but when you multiply them by the number of employees and the number of man-hours worked, it becomes a considerable cost when you consider these men are making \$7 or \$8 an hour.

Senator PROXMIRE. Mr. Eno mentioned harassment of the workers. Can you give us an example of the harassment taking place?

Mr. CAMARA. Yes, employees are required, if going to a vending machine or the restroom, to carry the tool with them, whether they work on a machine where they wouldn't carry a tool or not. An employee is required, before going to a restroom, to have a supervisor sign his timecard.

Since October of 1977, discipline has really run rampant in the yard. They discharge people for no good cause whatsoever. One incident that comes to mind is: One employee was noticed leaving the yard at 3:30, at the end of his normal work shift, and he was walking in an irregular manner, and the yard superintendent on the second shift immediately had him fired—immediately, on the spot. The next day they found out that the man had a handicap and that is the reason he walked the way he did.

Senator PROXMIRE. Was he rehired?

Mr. CAMARA. Yes, but he was never apologized to, and he was told if he pursued the matter, the discharge would be maintained. I could go on and on and on as far as harassment.

Senator PROXMIRE. One of the most striking examples of loss of time and productivity which concerns the staff was that employees had to obtain written passes to go to the restroom, and then when they would get there, they often must wait in long lines because of the inadequate facilities. Instead of working, they were waiting in line to go to the restroom. Is that "restaurant" or "restrooms"?

Mr. CAMARA. The restrooms. The restrooms have always been inadequate.

Senator PROXMIRE. How much time would you say was lost by an employee in a typical day, a half-hour or an hour?

Mr. CAMARA. Waiting to go to the restroom?

Senator PROXMIRE. Yes.

Mr. CAMARA. Fifteen minutes in the whole day.

Senator PROXMIRE. Then it is a matter of a nuisance, and one of the elements that Mr. Eno pointed to as a lack of morale, that they didn't have adequate restroom facilities?

Mr. CAMARA. Yes.

Senator PROXMIRE. I understand there was a recent rebellion of the female workers over the lack of adequate restroom facilities. Can you comment on that?

Mr. CAMARA. Yes. When the women were hired, they put in trailers, and put them in the yard. The yard covers maybe half a mile, and they probably put three or four trailers scattered through the yard and these were all the restrooms available to women employees. It did make it frustrating.

Senator PROXMIRE. What did the rebellion amount to?

Mr. CAMARA. Some women locked themselves in a men's restroom and held out for a couple of hours until they got their own.

Senator PROXMIRE. That has been corrected?

Mr. CAMARA. Please?

Senator PROXMIRE. Has this been corrected?

Mr. CAMARA. No; there are not adequate facilities in the whole yard.

Senator PROXMIRE. I am talking about women now.

Mr. CAMARA. There aren't adequate facilities for women or men in the yard.

Senator PROXMIRE. There are not?

Mr. CAMARA. No.

Senator PROXMIRE. I understand in one area servicing a thousand workers there are only six toilets. Is that right?

Mr. CAMARA. That is the information that has been brought to me, yes.

Senator PROXMIRE. Mr. Eno, what do you mean by the term "Bolwarism" and—

Mr. ENO. One of the first lessons you learn studying labor relations is the history of labor and how negotiations have gone on through the years, and one of the classic examples which has now become part of the idiomatic language of the professors of labor relations, Bolwarism. Mr. Bolwar was vice president of industrial relations for the General Electric Corp. for many, many years. He was very successful in that he compiled a complete contract for each negotiation, and laid it on the table and said: "Gentlemen, this is your contract, sign it," and walked out of the room.

For many years the employees of General Electric were subjected to Mr. Bolwar's take-it-or-leave-it attitude, and it was successful.

Two or three years ago, the Supreme Court in a ruling on the National Labor Relations Board case ruled that illegal. The term "Bolwarism" is still used by labor relations people to indicate a type of management practice of "Take it or leave it, we are not going to do anything else about it." This is what has taken place at Electric Boat at the present time.

Senator PROXMIRE. The other part of my question is: How do you explain the policy of harassment and intimidation?

Mr. ENO. I explain it as one of a fear complex. I had occasion yesterday, since my statement came in, of meeting a gentleman who rode in my carpool and lived next door to me for the first couple of years, and he said: "I am afraid to talk to you, so let's go in the back part of the room and sit and talk."

When a man who is a retired Navy chief and has worked for 12 years for Electric Boat as one of their supervisors and one of their interviewers tells you that when he, and all the other employees—he is in a position to know because he interviews and talks to all people when they leave the company in the final interview. I am talking now about management people, and also when they are hired. He does a lot of the hiring and interviewing for that.

When he tells you that: "You don't know when you come in to work," and not just himself, but everyone else: "In the morning whether you will last the day. When 5 o'clock comes, you say amen, I made it again."

This is the general attitude. I meet these people socially and politically in Groton. You can tell they have aged and changed because of this constant pressure. You cannot work anywhere with a threat over your head, that when you come in to work in the morning you may not last to the end of the day.

Senator PROXMIRE. How can you explain such a counterproductive policy? This is a big company.

Senator Weicker says they produce a remarkably fine product. You said the man who runs the company now is a brilliant shipbuilder. How can you explain that the people of this kind would engage in such a counterproductive policy?

Mr. ENO. One of the talents that people sometimes don't have in life is how to handle people. They have certain procedures set up, and you do it their way, or you do it that way, or you quit. Mr. Veliotis is that kind of man, but handling people and hiring the people to handle people is where he has failed.

Senator PROXMIRE. I can't understand that. That is the essence of management. That is like saying this man is a marvelous ballplayer. He can't hit, field or run, but he is a terrific ballplayer.

That is the heart of it, handling people. An executive has to pick people who can do the job, and see that they do the job, and make sure that their attitude while they are working is such that they are constructive and working all the time.

Mr. ENO. But you don't do it by threat.

Senator PROXMIRE. Then what did you mean that he was a brilliant success?

Mr. ENO. He came from the Davie Shipyard in Canada, and took a shipyard that hadn't made a penny of money since it was built by Bethlehem Steel, and that was the Quincy Shipyard. He fired practically the whole shipyard and gradually rebuilt it. He works on the principle that if he can bulldoze—

Senator PROXMIRE. They made money after he did this?

Mr. ENO. As a stockholder of General Dynamics, by the way, I got my first quarterly report to the shareholders from Mr. Lewis. The company is doing tremendously well. I would like to give you this copy. I think it would be interesting and should be put into the record.

It shows their statement of how they are reporting to the stockholders on the Navy cost overrun problem, where they are making money. They have not paid a dividend, however, on their stock since 1970.

Senator PROXMIRE. The bottom line for the Federal Government is, you know, they are late in their production and the cost is fantastic. If we didn't bail these fellows out in some kind of a settlement on their claims, they would really be sinking.

Mr. ENO. Rather than read this pamphlet, I think, and this is signed by Mr. Lewis, where he says:

"We are doing tremendously well. In 1977, earnings again reached record levels, and we were nearly five times greater than the earnings of several years ago.



Senator PROXMIRE. Well, I want to thank you gentlemen very, very much. You have been excellent witnesses and it is a sad story that you tell, but you tell it very vividly and honestly, and we appreciate very much this testimony. I think it helps us get a much better understanding of the productivity problems involved with Electric Boat—and new insight.

Thank you.

Mr. ENO. Thank you, Senator.

Senator PROXMIRE. Our final witness this morning is Vice Adm. C. R. Bryan, commander, Naval Sea Systems Command, and colleagues.

**STATEMENT OF VICE ADM. C. R. BRYAN, USN, COMMANDER, NAVAL SEA SYSTEMS COMMAND, ACCOMPANIED BY REAR ADM. F. F. MANGANARO, USN, CHAIRMAN OF NAVY CLAIMS SETTLEMENT BOARD, NAVAL MATERIAL COMMAND; REAR ADM. J. H. WEBBER, USN, DEPUTY COMMANDER, SUBMARINE DIRECTORATE, NAVAL SEA SYSTEMS COMMAND; AND ROBERT STOREY, ASSISTANT DIVISION DIRECTOR, SCN APPROPRIATION DIVISION, NAVAL SEA SYSTEMS COMMAND**

Admiral BRYAN. Good morning, Mr. Chairman.

I have Admiral Manganaro, Admiral Webber, and Robert Storey accompanying me.

Senator PROXMIRE. We are happy to have you.

Go ahead with your statement.

Admiral BRYAN. I apologize in that I am in the process, apparently, of losing my fight with laryngitis.

Senator PROXMIRE. You sound good now. Pull the microphone over and go ahead.

Admiral BRYAN. Mr. Chairman, I am pleased to appear before this committee in response to your request to discuss in general the claims filed by Electric Boat Division of General Dynamics, and in particular the problems experienced at Electric Boat in buildup of manpower and recruiting of skilled workers, productivity trends, and drawing revisions and contract changes. In addition, I am prepared to review relative costs of building SSN-688-class submarines at Electric Boat and Newport News.

In January 1971, Electric Boat Division, General Dynamics Corp., was awarded a contract for seven 688-class submarines. At present, two of the seven ships have been delivered to the Navy. In October 1973, Electric Boat was awarded a second contract for 11 SSN-688-class submarines. Electric Boat was awarded the Trident contract for a lead ship plus three follow ships in July 1974. The Trident contract was amended in June 1977 to include a fifth ship plus an option for the sixth and seventh ships. On February 27, 1978, the option for the sixth and seventh Tridents was exercised. The current workload at Electric Boat is 16 SSN-688 and 5 Trident submarines which are in various stages of construction, plus the 2 Tridents whose contracts have just been awarded.

## CLAIMS

On the claims issue, two substantial items should be mentioned. First, the initial claim was submitted on February 14, 1975, against the first SSN-688-class contract. The principal basis of that claim was that the defective and late Government-furnished design data, data which were principally prepared by Newport News, resulted in ship delivery extensions and additions work not covered by the original pricing. The claimed amount was approximately a \$232-million increase in ceiling price. The claim was settled on April 7, 1976, for a \$97-million increase in ceiling price. As a part of that action, Electric Boat Division agreed that all Government responsible actions or inactions relative to the first SSN-688 contract prior to May 20, 1975, were covered completely by this claim settlement.

Second, on December 2, 1976, Electric Boat Division submitted a second claim under their first 688 contract for actions after May 20, 1975, and also submitted a claim against their second contract for SSN-688's. These claims were for an increase in ceiling price of \$543.9 million for the two contracts. These claims have been assigned to the Navy Claims Settlement Board, and Admiral Manganaro, who heads this board, is with me today and can discuss the claims, as you may desire, sir.

## DRAWING REVISIONS AND CHANGES

I would like to talk about the issue of drawing revisions. I would like to discuss allegations that have been made regarding ship design changes or things that have been represented to the press and the public as design changes.

One press account stated that the Navy ordered 35,000 revisions for the 688 class at Electric Boat after it signed contracts for building the ships, and clearly implied the shipbuilder was expected to pay for an imputed massive change to the ships.

I know you, Mr. Chairman, the Congress, and the public were understandably shocked by such allegations. I personally believe such allegations are not only inaccurate, but are very misleading.

A naval warship is an extremely complex thing to conceive, to design, and to build. In the course of development of the design, after the Navy prepares the contract plans and specifications for shipbuilders to bid on, the actual preparation of the thousands of construction blueprints are assigned to a design agent. In many cases, this is also the builder of the lead ship. In other cases, the builder of the lead ship may hire his own naval architect to prepare the blueprints or drawings.

The Navy provides the other shipbuilders these same design drawings for their use in constructing follow ships when more than one shipbuilder is involved in the program.

One ramification of this practice is that, even though the thousands of detailed construction drawings actually are prepared by the lead shipbuilder—since they are done under a Navy contract—they are viewed as Government-furnished drawings by the follow builders.

These drawings serve a number of purposes. Principally, they are the method by which the engineers and technicians tell the workmen

how to make, assemble, install, test, and prove every one of the millions of pieces that go into a complex naval ship. Further, they form the living record of the general technical instructions to all of those who construct and inspect every part of the ship. They serve as the means to record every lesson learned throughout the design and construction process, so that errors noted and problems encountered are corrected or avoided in subsequent ships. Every time a drawing is modified, whether for the correction of an early error, the improvement of a manufacturing process, the incorporation of an actual design change, or merely the addition of clarifying instructions to the construction workers, that particular drawing modification is recorded and is issued with a revision coding so that there can be traceability and accountability for the actual set of plans to which each ship is built.

This basic procedure of keeping track of the communication between the designer and the worker as each drawing may be completed, changed, clarified, or updated is called a drawing revision. It is a system proven over the years for naval ships and commercial ships. The fundamental concept is used in the aircraft industry and, indeed, any complex design and manufacturing endeavor where the designers and the builders need a disciplined method to assure proper construction as well as a method for documenting the actual configuration of the product as it is finally built.

Obviously, a large and complex ship requires more blueprints or drawings than a small and simple ship. Therefore if one wants to assess drawing "revisions" in any reasonable manner, the statistic should, from a commonsense standpoint, at least, compare the average revisions per drawing. In 1969, before starting the detail design for the SSN-688 class, the design agent estimated that an average of 6 revisions per drawing would eventually be required. After 8 years, during which 31 ships have been awarded, the design agent has issued an average of about 5 revisions per drawing. Since there are approximately 6,000 construction drawings for all those submarines, the result is something over 30,000 drawing revisions. This is the only numerical source I can think of for that statement that there have been 35,000 or so many thousand changes to the ships being built.

What are the comparable statistics for these drawing revisions as part of the normal process for other kinds of ships? As I said, there have been 5 revisions per drawing on the 688.

Our last class of nuclear attack submarines, which was designed by Electric Boat, had an average of five revisions per drawing for those ships. Several classes of surface combat ships have had an average of four to seven revisions per drawing. Two classes of tankers designed by a private builder for commercial customers had averages of 5.7 and 6.7 revisions per drawing. The Polaris submarine program in the 1960's, properly heralded as a magnificent example of great professionalism in design and construction, saw an average of six revisions per drawing.

A more meaningful measure of real change is the effect upon ship cost. As a general statistic, the cumulative effect on total construction costs of deliberate Navy changes to a ship design even or specifications averages about 5 percent.

Senator PROXMIRE. Averages about what?

Admiral BRYAN. Five percent, sir. These are our own statistics. They are consistent with other people's studies, including a June 30, 1976, GAO report which analyzed the financial status of major acquisitions in both the civil and the defense sector, and those statistics and that report—

Senator PROXMIRE. Let me just ask you, would that statistic generally hold for Electric Boat, or do you think it is higher than that or about the same?

Admiral BRYAN. I think it is about the same for Electric Boat, sir.

Senator PROXMIRE. Fine.

Admiral BRYAN. Yes, sir. In fact, they have seen about 5 percent, and 5 percent was also the GAO number, which is also consistent with our own records. It is also similar to civilian agencies, and is less than average in terms of the overall level of Department of Defense design and engineering changes.

So, I do not believe that our problems, both past and current, at Electric Boat, are fundamentally due to design change.

Where the Navy has changed the design it is the Navy's responsibility to pay for it, and the Navy did that. The Navy paid for its responsibilities. I think later Admiral Manganaro can speak to us about the content of the current claim as regards design responsibility.

Senator PROXMIRE. Let me ask you at this point. You say, design changes can account for about a 5-percent increase in costs?

Admiral BRYAN. Yes, sir.

Senator PROXMIRE. As I understand it, the overrun now is approaching \$800 million. How much of an increase over cost does that represent, that \$800 million, 30 percent, 40 percent, or 50 percent?

Admiral BRYAN. If I can have 1 minute—

Senator PROXMIRE. I want to put the 5 percent in perspective.

Admiral BRYAN. The ceiling price on the original contracts for those submarines at Electric Boat was approximately \$1.4 billion.

Senator PROXMIRE. \$1.4 billion. This would be around 55- or 60-percent overrun, and—

Admiral BRYAN. More than that, sir.

Senator PROXMIRE. And less than 10 percent of the overrun can be accounted for by design changes?

Admiral BRYAN. Yes, sir, that is our view.

Senator PROXMIRE. OK. Go ahead.

#### BUILDUP OF MANPOWER

Admiral BRYAN. There is one thing that is common to the three shipbuilders that have the big claims. It is not submarines, and it is not nuclear powered ships. It is not where they are located on the east coast, west coast, or gulf coast. It is the following. Each one expanded his work force by thousands of new hires in a relatively short period of time. Electric Boat, as a matter of fact, expanded their work force from 11,000 employees in 1972 to almost 26,000 in 1976, an increase of 15,000 people in a 4-year period.

Shipbuilding is very hard and demanding work. It requires a variety of skills and crafts that do not automatically exist in the hiring halls, or the streets, or the corner service station. As employment at Electric Boat increased, their percentage of skilled workers declined.

Senator PROXMIRE. Again let me interrupt. That is a fascinating diagnosis here. You are saying one thing that these overruns had in common is that they had a rapid expansion of the work force, and in Electric Boat it was from 11,000 to 26,000 people in a period of 4 years.

Admiral BRYAN. Yes.

Senator PROXMIRE. And when you have that kind of rapid growth, you are going to have serious manpower problems.

Admiral BRYAN. Unless you take absolutely extraordinary measures—I don't mean normal good management procedures—for training, not only training of mechanic skills, but training of supervision.

Senator PROXMIRE. That fits perfectly into the testimony of preceding witnesses.

The reason I interrupt at this point, however, is that it seems to me the Government ought to be realistic about these things and recognize that if they are going to have the kind of enormous buildup that we should expect the cost increases to go up, and we should recognize this.

As you say, we can do what we can to provide the kind of very careful training that is necessary, but I just wonder if it is being fair and being realistic to assume that you can have this kind of rapid explosion in production without the big increase in cost, and if it is not possible and not realistic, should we allow for that in authorizing and appropriating for these weapons systems?

Admiral BRYAN. I think we should allow for it, and I think we should take note of it, Mr. Chairman. As a matter of fact, in all of my analyses that have to do with shipbuilding programs, we have been trying to take advantage of some of these harsh lessons that someone else learned. That is one of the principal parameters that we now consider when we make our forecast of future workload for the shipbuilding industry.

We take a hard look at what the previous employment has been in each shipyard, and whether an award to that yard would require that yard to go above employment levels they had already reached.

Senator PROXMIRE. Again, in order to be fair with the Congress, so that we can make our decisions on how to proceed, it is always tempting to make a conservative estimate of the cost, an estimate that we have seen again and again has been too low.

Sometimes, we wouldn't proceed with these programs if we found they would cost as much as they do, or we would proceed with a less ambitious program, or we would proceed more slowly with the program. So that is the Navy, in view of its most unfortunate experience with the colossal claims and overruns, intending in the future to follow a policy of warning that in the event that you have this kind of a rapid increase, the cost is going to be this great?

Admiral BRYAN. I can tell you that that is certainly my intention, sir, as the man in charge of administering and monitoring these programs.

Senator PROXMIRE. It would certainly be helpful to us. We have to decide on spending an average amount of money. I am sure you are sensitive to our having limited resources in defense, and we have to make decisions not only on what we desire, but what we can afford.

Admiral BRYAN. Yes, sir.

Senator PROXMIRE. Go ahead.

Admiral BRYAN. To give a couple of representative statistics, in late 1972, at the time this sharp work force buildup was started, over 80 percent of trade personnel at Electric Boat were classified as skilled workers. This percentage dropped to 53 percent in 1974, and remained low until this year. Of course, the basis for that is the shipbuilders' reports. The latest report showed the skilled percentage at Electric Boat has increased to about 70 percent.

Senator PROXMIRE. You think that is a genuine increase in skill and not a change in the evaluation of skill and the statistical base.

Admiral BRYAN. Mr. Chairman, that is a very good question, and to answer you straight out, no, sir, I am not sure of that yet.

In point of fact, next week the general manager of Electric Boat, as he is going to do every 90 days, is going to come down to visit me and explain to me each of his progress reports and progress indicators. This will give me the opportunity, then, to assure myself that this report is being generated from the same data source and the same basic assumptions.

I suspect some of your previous witnesses have related the effect on skill levels in greatly increasing a work force. The effect is twofold. One effect, of course, is the skill level of the production employees. In addition as new employees are hired, the former production workers advance to supervisory positions, and thus the expertise of both of them drop. When expansion of the work force is too rapid, productivity declines, the amount of labor required to build a ship increases, and schedules are delayed. It has a cascading effect. A shipbuilder is further exposed to inflation because work is being done at a later time. Certainly one of the measures of productivity is an ability to do things on time.

Beginning in February of 1974, Electric Boat announced a series of delays for SSN-688 class submarines. Delays have also been identified for Trident submarines.

A rescheduling of all ships under contract was announced by Electric Boat in July of last year. On February 17 of this year, all ships were again rescheduled. The SSN-688 submarines are now projected to be delivered up to as much as 40 months later than the original contract delivery date. Delivery of each of the five Trident submarines actually under construction is projected by Electric Boat to be 19 months later than the original contract delivery date.

I do believe the major contributing causes to these continuing production delays are too few workers on the worksite and low skill levels. There was also a period of time where there was a lack of an effective internal management system over such things as material control and actual production control and scheduling.

#### RELATIVE COSTS OF SSN-688 CLASS SUBMARINES

Speaking to the relative performance, some people say productivity is a relative thing, but another indication of the past productivity situation at Electric Boat is their relative performance in building the same ships in generally the same time frame as other people have built them.

Newport News and Electric Boat are building SSN-668-class submarines. The costs of Electric Boat are running substantially higher.

The estimated shipbuilder's cost for the completion of the first five submarines at Electric Boat averages about \$50 million more for each ship than for the first five ships at Newport News. The increase in direct labor required to build each ship is on the order of 20 to 25 percent higher at Electric Boat than at Newport News. Remember, these ships are being built—

Senator PROXMIRE. This isn't a matter of inflation, but a matter of more labor going into it, more resources?

Admiral BRYAN. Yes, sir. This is a reasonable comparison.

Senator PROXMIRE. Did you correct it for any inflation factor?

Admiral BRYAN. These ships are being built at about the same time, and, therefore, inflation should not be a factor. However, I don't believe this cost differential will necessarily apply to future construction.

Senator PROXMIRE. What this measures is the lack of productivity at Electric Boat compared to Newport News?

Admiral BRYAN. Total productivity, a combination of the work force, and the efficiency of their internal material-handling procedures—

Senator PROXMIRE. Can you give us that once again in terms of percentages? Is that \$50 million more for each ship? What percentage more is that, 10 percent?

Admiral BRYAN. To take the second one at each yard, it is about 31 percent more.

Senator PROXMIRE. Thirty-one percent more at Electric Boat than at Newport News for the same design, the same time frame, and everything the same except the productivity?

Admiral BRYAN. Yes, sir, essentially it is comparable.

On man-hours, the difference is about 25 percent. You see, there are some other differences here. The labor rates are a little higher at EB. That accounts for about 5 percent of the difference. EB's overhead is higher than Newport News. So, that is why the cost differential percentage is larger than the labor percentage, but—

Senator PROXMIRE. OK. So, in summary, I think you are led astray by a lot of the theories on productivity.

Admiral BRYAN. The fundamental measure of productivity is the performance of the shipbuilder in meeting his scheduled commitments at intended and for the expenditures planned. In the past, at Electric Boat, manpower expenditures have exceeded those planned and schedules have slipped. The causes include low productivity and other factors, some of which are the Government's responsibility. The Government should pay for those matters which are properly its responsibility. In the case of Electric Boat, in the first claim settlement, the Government paid for those mistakes that were properly its responsibility. But the shipbuilder should be prepared to take responsibility for his actions or inactions.

As I testified earlier, a new management team was assigned to Electric Boat in October of last year. Although the previous management—which also had been there only about 1½ years—had recognized the need for improvements in shipyard operations, the new management has initiated several strong actions directed to improving productivity. Changes are being made in the materials-handling procedures, worker skill levels are coming up, and a training program

for supervisors has been initiated. It is too early to measure the effect of these actions. There is no question in my mind that Electric Boat will ultimately achieve improvement in productivity.

Why do I say that? I say that because I have seen other shipyards, both Navy and private, who got into productivity and performance problems. These same kinds of actions turned those shipyards around. These actions—improving work force skills, getting material at the right place at the right time, instilling a sense of responsibility for meeting scheduled events—are the right actions. But at this time, I cannot forecast when or at what rate performance will improve at Electric Boat. We will monitor their performance, as I am sure you can understand, very closely, but until I see physically demonstrated improvement at the output level, I am not going to predict future improvements.

Senator PROXMIRE. I welcome that attitude, and I want to tell you, Admiral, that we have had a lot of witnesses here over the years, the last 10 years or so, on this issue and others relating to military procurement, and this is one of the most informative and candid statements we have had from any Government officials, and it is welcome.

[The prepared statement of Admiral Bryan follows:]

#### PREPARED STATEMENT OF VICE ADM. C. R. BRYAN

Mr. Chairman, I am pleased to appear before this committee in response to your request to discuss in general the claims filed by Electric Boat Division of General Dynamics, and in particular the problems experienced at Electric Boat in buildup of manpower and recruiting of skilled workers, productivity trends, and drawing revisions and contract changes. In addition, I am prepared to review relative costs of building SSN 688 class submarines at Electric Boat and Newport News.

In January 1971 Electric Boat Division, General Dynamics Corporation was awarded a contract for seven 688 class submarines. At present two of the seven ships have been delivered to the Navy. In October 1973 Electric Boat was awarded a second contract for eleven SSN 688 class submarines. Electric Boat was awarded the Trident contract for a lead ship plus three follow ships in July 1974. The Trident contract was amended in June 1977 to include a fifth ship plus an option for the sixth and seventh ships. On 27 February 1978 the option for the sixth and seventh Trident was exercised. The current workload at Electric Boat is sixteen SSN 688 and five Trident submarines which are in various stages of construction, plus the two Tridents whose contracts have just been awarded.

#### CLAIMS

On 14 February 1975, Electric Boat Division submitted a claim against their first SSN 688 class contract. The principal basis of the claim was that defective and late Government-furnished design data resulted in ship delivery extensions and additional work not covered by the original pricing. The claimed amount was approximately a \$232 million increase in ceiling price. The claim was settled on 7 April 1976 for a \$97 million increase in ceiling price. As part of this action Electric Boat Division agreed that all Government responsible actions or inactions relative to the first SSN 688 contract prior to 20 May 1975 were covered by this claim settlement.

On 2 December 1976, Electric Boat Division submitted a second claim under their first SSN 688 contract for actions after 20 May 1975 and also under their second contract. This claim was for an increase in ceiling price of \$543.9 million. This claim has been assigned to the Navy Claims Settlement Board for action. Admiral Manganaro, who heads the Board, is with me today and can discuss that claim.

#### DRAWING REVISIONS AND CHANGES

Naval warship construction is an extremely complex undertaking. There are three principal elements required to build a ship. First, design information and directions to the worker in the form of drawings and technical work procedures



are required to describe the work to be performed; second, the components and basic materials necessary for fabrication of the ship must be assembled at the work site; and third, a skilled and trained work force must be available to actually build the ship.

The work force and its supervision and management are the responsibility of the shipbuilding contractor. Materials are the responsibility of both the Government and the shipbuilder, dependent upon who has been assigned responsibility for their procurement. The design and basic technical information is normally provided to the shipbuilder by a design agent under contract to the Government; therefore, responsibility for this element is principally the Government's.

The design agent for the SSN 688 class submarines is Newport News, who also built the lead ship. Electric Boat is the design agent for the Trident submarine. All Trident construction is at Electric Boat.

I would like to discuss allegations made regarding ship design changes or things that have been represented to the press and others as design changes. One press account states that the Navy ordered 35,000 revisions for the SSN-688 class at Electric Boat after it had signed the contracts for building the ships and clearly implied that the shipbuilder was expected to pay for an imputed massive change to the ships.

The Congress and the public are understandably shocked and concerned about such statements. I sincerely believe such allegations are not only inaccurate, but are very misleading.

First, let me recount some of the fundamentals of designing and building a complex, demanding product of high technology. They apply to many things, but in this instance I will address naval ships. After the conceptual and preliminary design is approved, the Navy, often in conjunction with shipbuilders, prepares the next stage of engineering called the contract design, which consists of certain general blueprints and the detailed specifications for construction. This package is the basis for the preparation of the detailed design, which includes all the engineering drawings for ship construction. These drawings, also called blueprints or plans, which will eventually total in the thousands for a modern warship, are prepared by a shipbuilder. He may use his own engineering staff, or he may employ the services of private ship-design agents. Where ships of a class are built by more than one shipbuilder, the Navy pays the lead shipbuilder to provide copies of his construction drawings to the follow shipbuilders for their use. In recent years, the Navy has provided funds to the lead design shipyard to revise the details of his drawings to suit the particular facilities or procedures of the follow shipbuilders, if it will reduce their time or cost of construction.

One interesting ramification of this practice is that, even though the actual detailed construction drawings are actually prepared by the lead shipbuilder, since they are done under a Navy contract, they are viewed as "Government furnished" drawings by the follow builders.

Those drawings serve a number of purposes. Primarily, they are the way the engineers and technicians tell the workmen how to make and install every bit of a ship, from its hull and frames, down to the precise details of how to make the millions of electrical connections in all the switchboards and weapons systems. Further, they form the living record of general technical instructions to all those who construct and inspect every part of that ultimate ship. They serve as the means to record every lesson learned throughout the design and construction process so that errors noted and problems encountered are corrected or avoided in subsequent ships. Every time a drawing is modified, whether for the correction of an early error, the improvement of a manufacturing process, the incorporation of an actual design change, or merely the addition of clarifying information to the construction workers, that particular drawing modification is carefully recorded and is issued with a revision coding so there can be traceability and accountability for the actual set of plans to which each ship is built.

This basic procedure of keeping track of the communication between the designer and the worker as each drawing may be completed, changed, clarified or up-dated is called a drawing revision. It is a system proven over the years for naval ships and commercial ships. The fundamental concept is used in the aircraft industry and, indeed, any complex design and manufacturing endeavor where the designers and the builders need a disciplined method to assure proper construction as well as a method for documenting the accurate configuration of the product as it is actually built.

As I touched on previously, the description of how to construct a ship and install everything in it required many individual drawings. Obviously, large and

complex ships require more drawings than smaller and simpler ships. Therefore, if one wants to assess drawing "Revisions" in any reasonable manner, the statistic should, from a common sense standpoint, at least, compare the average revisions per drawing. In 1969, before starting the detailed design effort for the SSN 688 class, the design agent estimated that an average of 6 revisions per drawing would eventually be required. After eight years, during which 31 ships have been awarded, the design agent has issued an average of about five revisions per drawing. Since there are approximately 6,000 construction drawings for all those submarines, the result is something over 30,000 drawing revisions. I can only assume that this arithmetic is the basis for the "35,000 changes" allegation.

Let's look at that kind of comparable statistics for some other kinds of ships, Navy and private, new and old. Our last class of nuclear attack submarine (SSN 637) designed in the 1960's by Electric Boat had an average of 5 revisions per drawing; the FFG 7, LHA and DD 963 average range from 4 to 7 per drawing; two classes of tankers designed by a private builder for commercial customers had averages of 5.7 and 6.7 revisions per drawing. The Polaris submarine program of the 60's was properly heralded as a magnificent example of great professionalism in design and construction; a follow-shipbuilder of the SSBN 616 class saw an average of 6 revisions per drawing.

I emphasize that most of these revisions are inherent in the normal and proven process of developing and defining the millions of details involved in carefully and accurately designing a complex, reliable ship; of providing clarifying information to the construction worker; and of updating the final configuration so that the men who will operate and maintain it for many years will start from an accurate-as-built baseline.

However, I do not intend to imply that none of these plan revisions are due to changes in the design. Indeed, there are those. They may be caused by a deliberate decision to incorporate a combat capability that was not known or was not available when the design was started. They may stem from increased knowledge of what will make some part of the ship more reliable or maintainable. They may correct errors in the original specifications. But these kinds of deliberate changes by the Navy are made known to and are the subject of prior negotiations with each shipbuilder. If they are mandatory for the safe operating and military capability of each ship, then they must be done. If they are judgmental, but mutually agreeable contract adjustments cannot be achieved, then they are not required on work already done by a shipbuilder, and the Navy will provide for that work after delivery of the ship at the most favorable opportunity.

A more meaningful measure of real changes is the effect on ship cost. As a general statistic, the cumulative effect on total construction costs of deliberate Navy changes to a ship design or specifications averages about 5 percent.

Under the contract terms, a shipbuilder is not supposed to accept a revised drawing if he considers that it requires a change in the contract. The Navy has elaborate internal checks and balances to screen, evaluate, and justify changes to ships under construction. When it is concluded that a deliberate change is justified, the Navy's policies and procedures are to identify the potential impact, if any, on the shipbuilder's cost and schedule and mutually negotiate a contract modification for such effects. If mutual agreement cannot be reached, the Navy has the alternative to defer the change to some later place and time after the ship is completed. Or if the change is essential to the safety, reliability, or performance of the military mission of the ship, the Navy can direct the shipbuilder to perform the work by issuing a change order. In this latter event the Navy seeks to arrive at a subsequent, mutually agreeable negotiation of the cost and schedule effects. Failing this agreement, the shipbuilder may submit a claim. The Navy uses such change orders sparingly as a matter of policy and strongly prefers to provide for necessary changes by means of mutually satisfactory negotiations with the shipbuilder.

#### MANPOWER PROBLEMS

There is one thing that is common to the three shipbuilders that have the big claims. It is not submarines and it is not nuclear powered ships. It is not where they are located either on the east or west coast. It is the following. Each one expanded his work force by thousands of new hires in a relatively short period of time.

Electric Boat expanded their work force from 11,000 employees in 1972 to almost 26,000 in 1976, an increase of 15,000 people in a four year period.

Shipbuilding is hard and demanding work. It requires a variety of skills and crafts that do not automatically exist in the hiring halls or in the streets or at the corner service station.

As employment at Electric Boat increased, the percentage of the workforce made up of skilled workers declined. In late 1972, at the time the workforce buildup started, over 80% of trade personnel were classified as skilled workers. This percentage dropped to 53% in 1974, and remained low until this year. In 1978, the skill percentage has started to increase and is now about 70 percent.

The effect on skill levels of greatly increasing the workforce is twofold. As new employees are hired, former production workers are advanced to fill new supervisory positions. Thus the expertise of both production workers and their immediate supervisors drops. When expansion of the workforce is too rapid, productivity declines, the amount of labor required to build the ships increases, and shipbuilding schedules are delayed.

Beginning in February of 1974 Electric Boat has announced a series of delivery delays for SSN 688 class submarines. Delays have also been identified for Trident submarines.

A reschedule of all ships under contract was announced by Electric Boat in June and July of last year. On February 17, 1978 all ships were again rescheduled; SSN 688 submarines are now projected to be delivered up to 40 months later than the contract delivery date. Delivery of each of the five Trident submarines now under construction is projected by Electric Boat to be 19 months later than the original contract delivery date.

Major contributing causes to these production delays are too few workers and low skill levels caused by the rapid expansion of employment in the mid-1970's.

#### RELATIVE COSTS OF SSN 688 CLASS SUBMARINES

Based on contractors' cost reports submitted to the Navy, costs at Electric Boat are running substantially higher than at Newport News. For example, the estimated shipbuilder's cost at completion of the first five SSN 688 class submarines at Electric Boat averages about \$50 million more for each ship than for the first five ships at Newport News. These ships are being built to the same design, with the same drawing revisions, with the same changes, and in roughly the same time frame. This cost differential would not necessarily apply to future construction, if improved productivity is achieved at Electric Boat.

#### SUMMARY

The final measure of productivity is the performance of the shipbuilder in meeting his scheduled commitments at the time intended and for the expenditures planned. In the past at Electric Boat, manpower expenditures have exceeded those planned and schedules have slipped. The causes include low productivity and other factors, some of which are the Government's responsibility. The Government should pay for those matters which are properly its responsibility. This was recognized in the first claims settlement, where the Government paid \$97 million for its actions. The shipbuilder must also be prepared to accept responsibility for his actions or inactions.

A new management team has recently been assigned to Electric Boat. Although the previous management had recognized the need for improvements in shipyard operations at Electric Boat, the new management has initiated several strong actions directed to improving productivity. Changes are being made in the materials handling system, worker skill levels are coming up, and a training program for supervisors has been initiated. It is too early to measure the effect of these actions. There is no question in my mind that Electric Boat will ultimately achieve improvements in productivity. At this time, I cannot forecast when or at what rate performance will be improved.

Senator PROXMIRE. What indicators does the Navy use as an indication of productivity? Did those indicators show a downward trend in the building of the SSN-class submarine?

Admiral BRYAN. There are two answers to your question, sir. The first one is not yet applicable to Electric Boat. The Department of Defense requires its large contractors to use a cost schedule control system, sometimes referred to as the "7000.2." This is a procedure for

defense contractors to use for reporting and keeping track of the progress of the construction and the costs.

It requires a fairly elaborate internal management and data system by the defense contractor. The basic concept—and take a ship as an example—is to take every part of the ship, every piece of it, and identify that part of the total cost that it would take to make that piece and install it. At some point in chronological time, that piece should be completed in accordance with an overall schedule.

Then all the man-hours, all the effort, all the material that is used to construct the ship is recorded. At any given time, when some piece is supposed to be finished, you can check the system to see if it is finished. Then you check the system and compare how much did that piece really cost against how much it was budgeted to cost.

So, comparing both of these together, one has—

Senator PROXMIRE. Supposing it is not completed on time?

Admiral BRYAN. Then when the time comes, and you can check it and see that it isn't completed, that gives you a warning that someone is behind schedule. You should find out what is wrong on that piece. The system will tell management, "Something is wrong, go find out what is wrong." If enough individual pieces are behind schedule, then that gives you a warning that maybe the overall schedule is starting to get into trouble.

That is a very systematic approach, but we do not have that system at Electric Boat as yet.

Senator PROXMIRE. You say you do not have that system at Electric Boat?

Admiral BRYAN. Electric Boat has not installed it.

Senator PROXMIRE. So, you are not in a position to answer the second part of the question, whether you saw that downward trend in the construction of the SSN—

Admiral BRYAN. I was going to tell you what we do at Electric Boat to monitor them. We take the overall schedule for each event, the major events, when the keel is supposed to be laid, for example. Electric Boat breaks that down into hundreds of intermediate events. We then have to question when some event was really done.

Now, they don't have a system that is finely calibrated to show what the ship should have cost up to that time. So what we have attempted to do there is to get their reports, for example, of labor expended up to that point in time, and compare it with what we think their budget was for expenditure through that time. We also compare it to historical performance by other people who have built the same ships at the same point in time.

Senator PROXMIRE. I see.

Admiral BRYAN. Electric Boat did very well on the previous class of attack submarines.

Senator PROXMIRE. How did they do on the SSN-688?

Admiral BRYAN. That is the one they are doing now.

Senator PROXMIRE. How are they doing?

Admiral BRYAN. They are not doing very well, sir. They did well in terms of costs and time on the last class they built.

Senator PROXMIRE. When you say they are not doing very well, is it showing a downward trend?

Admiral BRYAN. We haven't seen, really, a downward trend in productivity recently. In the last year and a half, where we have had

information, we haven't seen any upward trend yet. We hope to see some soon, but we just haven't seen them yet.

Senator PROXMIRE. The general manager of Electric Boat, Mr. Veliotis, published a new delayed schedule?

Admiral BRYAN. Yes, sir. In February, he informed us of revised schedules.

Senator PROXMIRE. How much will the ships be delayed, and are the new schedules realistic?

Admiral BRYAN. The additional delay announced in the February schedules on the attack submarines ranges from two months, on the next one about to be finished, to as much as 21 more months on his latest one, which will not finish until 1984.

Those are the attack submarines.

Senator PROXMIRE. That is additional delay?

Admiral BRYAN. Yes, sir.

Senator PROXMIRE. Do you think that is realistic?

Admiral BRYAN. Well, I said earlier that I wasn't prepared to speak right now on how soon he was going to improve. He is going to have to improve to meet those schedules.

Senator PROXMIRE. All right.

Now, there has always been a certain amount of gamesmanship in shipbuilding schedules. I understand Litton, on severely overrunning its LHA contract, launched an effort to redeem the shipyard mage by completing the first DD-963 ships; is that right?

Admiral BRYAN. I don't know if that was their corporate game plan, Mr. Chairman.

Senator PROXMIRE. Was that the result, whatever the corporate game plan was? Was that the result, that they came in on time?

Admiral BRYAN. They were not really on time, but the delivery did not slip as much on the DD-963's as on the LHA's. That is a fact.

Senator PROXMIRE. Do you have any evidence whether they diverted resources?

Admiral BRYAN. I can't say that I do. That is a hard one, because it implies knowledge of intent. I observe the facts. At Electric Boat, I observe two-thirds of their work force are on SSN-688's.

Senator PROXMIRE. You don't have to have knowledge of intent. Couldn't you tell from the slippage of delivery on one ship as compared to another? I am not saying that would be definitive, but it would give you some indication, and by the number of men working on each ship?

Admiral BRYAN. Well, yes, sir, we can do that, because we know the number of men required on each ship.

Senator PROXMIRE. See what you can supply for the record on that.

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

The first DD-963 delivered 285 days late to the original contract date set in June 1970. The first LHA delivered 1142 days late to the original contract date set on 1 May 1969. In May 1974, the then president of the Ingalls Shipbuilding Division of Litton did approach the Navy with a request to set priorities on ship deliveries. The proposal was to allocate manpower first to the submarine program, second to the destroyer program and lastly to the LHA program. The Navy rejected that plan and requested that all contract obligations be met by the Contractor. Litton, in fact, did not build up manpower on the LHA program as rapidly as he added manpower to the destroyer program. In March 1974, for instance, of the hard task workers available for DD and LHA work, the split was 49 percent DD, 51 percent LHA. In March 1975, the split was 76 percent DD,

24 percent LHA although the manpower reduction on LHA was only 1,400 people. In March 1976, 71 percent DD, 29 percent LHA. Since mid 1976, the manpower split has stabilized at approximately 60 percent DD, 40 percent LHA. Some favoring of the DD program is evident in the early stages of both the DD and LHA programs, but for the past 2 years, the Contractor has maintained stable division of actual manpower between the DD and LHA programs.

Senator PROXMIRE. Admiral, are there any indications that in trying to meet or beat the scheduling of the slips of the SSN-688 submarines, Electric Boat is failing to man the later ships, ships for later delivery?

Admiral BRYAN. Yes. They are putting their heaviest manning on the earliest SSN-688's.

Senator PROXMIRE. Can you tell us what effect that will have?

Admiral BRYAN. They are hoping to improve productivity over the next few years, but it is going to require an almost incredible increase in efficiency to meet the dates if their manning decisions stay the same.

Senator PROXMIRE. Does that lay the groundwork for new cost overruns and claims?

Admiral BRYAN. I don't know about claims. That would not be a Navy action, but their own action.

Senator PROXMIRE. New cost overruns?

Admiral BRYAN. Yes, sir, there is no question that stretching that construction out further is going to cost more, because you are exposed to inflation at a later time.

Senator PROXMIRE. It has been my experience that when their costs go up, their claims go up. That may be unfair.

Admiral BRYAN. That is conceivable.

Senator PROXMIRE. Admiral Rickover has characterized the overruns as a financial game that enables the shipbuilders to report earnings to their stockholders even in the face of an overrun. From what you have seen, have General Dynamics been building their claims around their cost statements, rather than—

Admiral BRYAN. Mr Chairman, I am not able to make a knowledgeable comment on that. In the time I have been in this job, I really have not been engaged in claims evaluation. Admiral Manganaro has been assigned to evaluate the Electric Boat claims. The first one was done before I came into my current position.

Senator PROXMIRE. I understand that even in cases where the company had the requisite number of people on board, there were imbalances in the ratio of skilled to unskilled workers.

Admiral BRYAN. Yes, sir.

Senator PROXMIRE. Can you explain that problem briefly and provide for the record the figures for the actual periods in question?

Admiral BRYAN. Yes, sir.

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

APPROXIMATE FIGURES AT EB DIVISION GROTON FACILITY FROM DECEMBER 1973 TO MARCH 1978

Year	Groton total direct personnel	Total skilled	Percent skilled
December 1973.....	5,900	3,420	58
December 1974.....	7,000	3,780	53
December 1975.....	6,150	3,750	61
December 1976.....	9,600	4,800	50
December 1977.....	10,200	6,120	60
March 1978.....	8,700	6,100	70

Senator PROXMIRE. Can you explain it briefly now.

Admiral BRYAN. The skills and trades used in building ships are not skills and trades normally found in the economy of the United States. So, when you hire a large number of people, hire them off the streets, you get a large number of people who are not skilled in the trades needed to build ships. Immediately there is a large number of unskilled people. You still have the same number of skilled people you had before, but the ratio of skilled to unskilled goes down.

Then, it takes a period of time—since difficult skills are required to build ships—to teach men and women those skills. During that period of time, you are making an investment in training, and in that period of time they aren't fully productive yet, because they don't have the skill, but you still have to pay them. So, you have a double investment when you allow skill mix to decline. You are not getting production out of them, and you are training them during that period of time, also.

Senator PROXMIRE. It is better to try to maintain levels in production. When you lay people off and hire more, it is bound to have that effect.

Admiral BRYAN. Yes, sir.

Senator PROXMIRE. We have had testimony, the three people who testified before you, three people who spent time on the labor board problems during the period of buildup involving drugs, alcoholism, sex, discrimination, and fights. Was the Navy aware of these problems, and do you agree that they seriously impaired productivity?

The argument was that each one of those might not have had a significant effect, but an aggregate seemed to have a very bad effect on morale and on performance.

Admiral BRYAN. As far as the Navy is concerned, we had no knowledge of the incident or the rate that would be more than a sensible person might expect in this society among the thousands of people working in an industrial area. There is no question in my mind that those things occur. They occur at every industrial plant, Government and private, in the world.

But did they occur to the degree or at the rate that these problems would have been one of the major causes for low productivity? I doubt that, sir.

Senator PROXMIRE. And whether prudent and competent management could have expected that when you hire and bring in a lot of people, you are going to have more problems with drugs, alcoholism and fights and so forth, unless you take extraordinary precautions and in this case, do you feel precautions were taken?

Admiral BRYAN. I have to say I don't know of any extraordinary precautions. I would be careful to unknowledgably criticize management. I don't know that the problem was that large.

Senator PROXMIRE. Admiral, last December, Assistant Secretary of the Navy Hidalgo simply withdrew the General Dynamics claim from the Navy Settlement Board just 2 weeks before the Navy completed its year-long review of the claim.

In January, Mr. Hidalgo returned the claim to the Board.

Admiral Manganaro, you have studied the claim. Is it fair to say that a large portion of the claim, in excess of 50 percent, was found to be without merit?

Admiral MANGANARO. You would have to say that in conclusion. I would caution, however, that our evaluation of the claim was to determine to what extent there was merit.

Senator PROXMIRE. That was the conclusion of your Board?

Admiral MANGANARO. The conclusion of my Board is that the claim would have merit amounting to less than 50 percent.

Senator PROXMIRE. Did the company comply with Navy requirements for documenting claims, specifically, did the company show a cause and effect relationship between the action cited in the claim and the amounts claimed?

Admiral MANGANARO. In some of the claim elements that was done and in others it was not.

Senator PROXMIRE. Would you say that in more than 50-percent it was not done?

Admiral MANGANARO. I would rather say that in some of the larger elements it was not done.

Senator PROXMIRE. Rather than trying to buy time to work out an overall settlement, Assistant Secretary Hidalgo made a \$60 million provisional payment against the \$540 million claim.

Traditionally, that amount would represent the amount the Government knows it owes without additional factors of litigative risk.

Would it be fair for me to assume that the Government found only \$60 million of liability out of a \$544 million claim?

Admiral MANGANARO. It would be reasonable to assume that that amount is characteristic of the breakdown between the entitlement and litigative risk.

Senator PROXMIRE. Well, I am not sure I understand that. You say that is a fair breakdown between entitlement and litigative risk.

Admiral MANGANARO. It is an indicator.

Senator PROXMIRE. But it would not be fair to conclude that the Board found only a definite Government liability of \$60 million?

Admiral MANGANARO. I am dodging your question, because I don't want to indicate the position of the Government in further negotiations of this claim.

Senator PROXMIRE. In analyzing the claim, you must have had to analyze the causes of the slip delay. What were your conclusions?

Admiral MANGANARO. Unfortunately, I did not conduct an analysis to determine all the causes of delay—only those instances where the delays were Government caused. We evaluated available data to determine which delay periods were caused by the Government. For instance, we did not analyze anything having to do with the 23 weeks during which the strike took place. The strike is not considered a Government responsibility.

Numerous causes of delay involved productivity, specifically the failure to get things done as scheduled.

Senator PROXMIRE. Could you give us, then, an off-hand notion, just a rough notion of what proportion of the delay was the Government's responsibility, what proportion was because of the strike, and what proportion was because of the lack of productivity?

Admiral MANGANARO. I can do so for the record, but would prefer not to do it publicly.

Senator PROXMIRE. Not to do so publicly?



Admiral MANGANARO. Yes, sir, because the alleged delay cost is such a large portion of the total claimed amount that disclosure of the value of Government responsibility for that element gives a very clear indication of the Government's negotiating position.

Senator PROXMIRE. Do you have any opinion on this, the extent to which the considerations involving financial reportings to stockholders are directed to the shipbuilders and their negotiations of claims?

Admiral MANGANARO. I really can't say anything on that.

Senator PROXMIRE. Admiral Bryan, on the projected cost overrun of the 688-class, General Dynamics is reporting a record \$103 million profit for the company. It is predicated on the company recovering the \$840 million overrun from the Navy.

If Arthur Anderson refused to issue an unqualified certification of the company's report, has the Securities and Exchange Commission, to your knowledge, made any attempt to investigate the General Dynamics claim?

Admiral BRYAN. They haven't indicated that to me, not that they would since I am not in the claims analysis business. I have not been approached on that. I don't know.

Senator PROXMIRE. Do you believe that throughout the 1979—throughout the period 1972 to 1977, would you feel it is fair to characterize productivity at Electric Boat as low, and efficiency poor?

Admiral BRYAN. Yes, sir.

Senator PROXMIRE. Did those cause slippages and cost overruns at Electric Boat?

Admiral BRYAN. Yes, sir, I believe so.

Senator PROXMIRE. I understand the entire Electric Boat facility was shut down in January for an inventory.

Admiral BRYAN. Yes, sir.

Senator PROXMIRE. Was this an unusual act? Will the Navy have to pay the cost of shutdown? I am 40 years out of Harvard Business School, I regret to say, but we used to find that there are all kinds of inventory systems, and that the competent up-to-date corporations have a perpetual inventory. They can tell you like that what their inventory is.

They don't have to shut down for a month to count everything they have got. This would seem to me unusual.

Admiral BRYAN. I know a little bit about it, and it seems unusual to me, too, sir. I think the reason is that they hadn't had, over the years, an accurate and professional inventory system. They have changed management concepts once or twice significantly over the last decade.

We saw their own internal material control procedures getting rusty and slowing down, so I have a feeling that those are all tied together, and that fact was a symptom of problems so severe that they had a traumatic wall-to-wall inventory of a large industrial organization. It is symptomatic of these other cost factors that we talked of.

Senator PROXMIRE. Does the company disclose the results of inventory, and if not, why haven't they?

Admiral BRYAN. We haven't seen any particular report of it, nor should we, especially. I expect to hear next week some sort of a management summary of it. It is their material they are inventorying, and they have the right to do that.

Senator PROXMIRE. Well, so much of the taxpayers' money is involved that it seems to me you should know about the inventory.

Admiral BRYAN. On the SSN-688 class, it probably won't cost us any more, because as far as I am concerned, the ceiling price of the 688 contract is the maximum amount of our liability.

Senator PROXMIRE. Unfortunately, as far as you are concerned doesn't determine—

Admiral BRYAN. Well, there are other issues.

Senator PROXMIRE. There sure are, other authorities.

Admiral BRYAN. Right now I would have to go along with the general manager. If an inventory was one of the things that would really contribute toward getting on with production efficiency from now on, then the cost of conducting that inventory was a wise investment.

Senator PROXMIRE. I understand their first layoffs last fall under the new management, an additional 1,000 to 1,500 workers have been laid off. Do you know the percentage of those that are blue-collar workers?

Admiral BRYAN. I don't have those statistics with me. I can acquire them, though, and provide them for the record. We will have to go to him for his own employment figures.

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

There is no contractual requirement for Electric Boat to provide this information. I am requesting that this information be provided to us by Electric Boat. The information will be forwarded to the subcommittee when available.

Senator PROXMIRE. Do you have any record of whether semiskilled workers and skilled workers have been laid off recently?

Admiral BRYAN. We don't keep that kind of specific record. I have heard those allegations.

Senator PROXMIRE. Are you concerned that layoffs of skilled workers may be exacerbating manpower problems at Electric Boat, and do you believe it now has adequate manpower to perform its contract to meet the new schedules?

Admiral BRYAN. I would be concerned if they were laying off substantial numbers of skilled workers. I don't have facts and figures to show me that. As I said earlier, sir, the new schedule is going to be contingent upon significant improvements in productivity and improving the skilled labor force. If he does not achieve that, then he won't meet those schedules.

Senator PROXMIRE. The testimony today indicates that much if not most of the causes of cost overruns in the Electric Boat Division concerns the huge labor force buildup beginning in 1972.

The level of skilled workers declined drastically, and there were other problems involving drugs, alcohol, and sex that contributed to a drop in productivity.

Responsibility for the work force is, of course, the contractor's. And to the extent that labor problems account for cost overruns, the taxpayer should not be asked to assume this burden.

A preliminary answer to the question—why is productivity low at EB?—is, because the company did not adequately manage the increased workload and the enlarged labor force during the 1972-78 period.

This happens to be the period during which EB's claims arose.

The facts throw further doubt on the validity of EB's \$544 million claim and give greater reason for the Government to move very cautiously before any settlement agreement is reached.

Gentlemen, I want to thank you very much for your testimony. As I said, I am most impressed by it. I think you have been extremely candid and helpful and cooperative and responsive, and I think you made a fine record.

The subcommittee will stand adjourned.

[Whereupon, at 12:20 p.m., the subcommittee adjourned, subject to the call of the Chair.]

## ECONOMICS OF DEFENSE PROCUREMENT: SHIPBUILDING CLAIMS

FRIDAY, SEPTEMBER 8, 1978

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 a.m., in room 5302, Dirksen Senate Office Building, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senator Proxmire.

Also present: Richard F. Kaufman, general counsel; Howard E. Shuman, administrative assistant, and Ron Tammen, legislative assistant, Senator Proxmire's staff; William Chastka, assistant clerk; and Mark R. Policinski, minority professional staff member.

### OPENING STATEMENT OF SENATOR PROXMIRE, CHAIRMAN

Senator PROXMIRE. The subcommittee will come to order.

This subcommittee has been holding hearings for many years on the subject of shipbuilding claims against the Navy. In the past I have criticized individual settlements because they were overgenerous and unsubstantiated by the facts.

I have raised questions about claims that appear to be grossly inflated and have urged in several cases that they be referred to the Justice Department for investigation of possible fraud. I have watched the Navy change its claims review organization and procedures.

I have often been bothered by the zigs and zags in Navy policy with respect to claims and its frequent failure to enforce its own contracts.

There has never been more reason to be concerned than today. We stand at the edge of a new era but one that I believe we will all regret in future years.

The era being ushered in today is one of capitulation to Navy contractors, which Herblock epitomized so well in his cartoon in the Washington Post only a few days ago, "We always put the guns in place first." "Pay us a few hundred million dollars or we shut down."

That is what we are facing now. We see the Navy waving the white flag and we certainly want to get into that. Whether it is fair or not fair is what the Navy has to say about their contracts.

The settlements that have been proposed by the Navy were reached not as a result of an analysis of the merits of the claims, but as a result of coercion and intimidation. The Navy has been on the receiving end of that process.

Electric Boat and Litton used the threats to shut down their shipyards in order to extract financial bailouts from the Navy. The Navy has chosen to give up for their ships. The Navy would rather quit than fight for its contractual rights. John Paul Jones would turn over in his grave.

The Navy is willing to pay to the shipbuilders \$541 million over and above the value of the claims. That figure represents one of the largest bailouts ever proposed by the Pentagon. If experience is any guide, this bailout will be followed by others because contractors are being encouraged to threaten work stoppages in order to get reimbursed for their cost overruns.

The Navy argues that the bailout is necessary although it prefers the term "relief" to "bailout" because it will "facilitate the national defense."

It has not been demonstrated to my satisfaction how such a giveaway of taxpayers' money, as a result of a process of threats and intimidation, can facilitate the national defense. These are some of the reasons I oppose the settlement proposals. I intend to introduce resolutions of disapproval today and I hope to be able to get rollcall votes on them.

I am very pleased to welcome before us Hon. W. Graham Claytor, Jr., Secretary of the Navy, and Assistant Secretary Edward Hidalgo. You gentlemen know more about the settlements than anyone because you negotiated them.

I have Secretary Claytor's prepared statement and you are welcome to proceed in your own way and then I have some questions.

Go ahead, Mr. Secretary.

**STATEMENT OF HON. W. GRAHAM CLAYTOR, JR., SECRETARY OF THE NAVY, ACCOMPANIED BY ASSISTANT SECRETARY EDWARD HIDALGO**

Secretary CLAYTOR. Thank you, Mr. Chairman.

It is a pleasure and a privilege to appear before the subcommittee at all times. I have submitted a prepared statement for the record which I will not read, but I would like to make a brief oral summary of some of the background and highlights of our settlements.

The primary task assigned to me by the Senate Armed Services Committee at my confirmation hearing was to try to find a solution or what was generally recognized as the Navy's most difficult problem—the complex and longstanding litigation and controversies with the country's three largest naval shipbuilders—Electric Boat, Ingalls, and Newport News.

This problem has had top priority from Assistant Secretary Hidalgo and me from the very beginning of our terms. In June of this year after many months of almost continuous negotiation we reached settlement agreements utilizing the provisions of Public Law 85-804 with two of the three yards—the Electric Boat Division of General Dynamics and the Ingalls Division of Litton. As previously reported, we are in what I hope are the final stages of negotiating a settlement with the third yard, Newport News.

The details of the Electric Boat and Ingalls settlements are set out in my prepared statement and I won't take the subcommittee's time

by repeating them here. In the absence of any claims or contract modification payments, Electric Boat faced a loss of over \$800 million and Ingalls a loss of over \$600 million, for a variety of reasons—some the fault of the shipbuilders, some the fault of the Navy, and quite a number were the fault of a situation that could not be attributed to either party.

At the outset of the negotiations it was made clear that an essential feature of any settlement would be the acceptance by the shipyards of massive losses on the shipbuilding contracts in question. In the end this came to a loss of \$359 million by Electric Boat and \$200 million by Litton. In addition, Litton released substantial additional manufacturing process development costs that had been asserted but never recognized by the Navy.

The Navy, in turn, under Public Law 85-805 agreed to absorb \$359 million of the projected Electric Boat loss and \$182 million of the Litton loss by modification of the appropriate shipbuilding contracts, as well as recognition of entitlement pursuant to strict claims analysis of \$125 million for Electric Boat and \$265 million for Litton.

While Mr. Hidalgo was on the point of these negotiations on literally a day-to-day basis for many months, both Deputy Secretary of Defense Duncan and I were kept informed continuously. I also participated in a number of the sessions. I can fairly say that they were the toughest negotiations I have known in almost 40 years of law and business experience.

A principal objective was to wipe the slate clean and eliminate the adversarial and acrimonious relationship that had developed over the years between the Navy and these shipbuilders—not merely to settle some specific claims.

We recognized fully the danger of establishing a precedent that might encourage Navy contractors to underbid ships in the future and rely on the Navy to bail them out if things did not turn out well. That was one reason we insisted on acceptance by the yards of huge losses. If this is to be the price of a Public Law 85-804 settlement it is inconceivable that a businessman would undertake a contract with this in mind. The \$359 million Electric Boat loss, for example, wipes out all their profits on a constant dollar basis for about 20 years—practically all earnings earned since the start of the nuclear submarine program in the midfifties.

We and the senior naval officers in the Naval Material Command will monitor with great care the administration of these contracts to make certain that the situation cleared up by these settlements does not reoccur. Many of the circumstances that gave rise to these controversies have changes, our contracts and contracting procedures have changed, and both yards are now experienced in the construction of the ships in question.

In conclusion, Mr. Chairman, I want to make clear that:

Admiral Holloway, CNO, was kept informed of negotiations and details of the settlement, and Admiral Hayward, CNO as of July, was fully briefed. Both authorized me to say they fully support the settlements.

I can also say the same for Admiral Michaelis, Chief of Naval Material, and his successor, Admiral Whittle. Both support the settlements and are confident we can keep our future shipbuilding relationships on an even keel.

The only practicable alternative to settlement of these disputes was to accept years of negotiation and litigation, with the enormous drain in both money and time of our top officers that this would entail, as well as a continuation of the atmosphere of distrust and acrimony so prevalent in recent years—an atmosphere not conducive to building the complex warships we need today.

I also want to make clear the litigation could well have resulted in judgments against the Navy for far more than the costs of the settlements. In cases as complex as these, no one can predict the final outcome with any confidence.

We honestly believe that the settlements reached were the best deals we could have made, and that they are definitely in the Government's interest.

I want to say that in my many years of business and legal practice I have never been considered one who rolled over and played dead or waved the white flag as Herblock indicated. These settlements were reached only because we felt they were in the best interests of the Navy, both from a monetary and from an operational standpoint, and I think we got considerably more in getting these settlements for the Government than we had anticipated we would be able to get when we started.

We laid down a slide rule that these people had to take enormous losses, the largest loss that was ever experienced in Navy contracts, and we got that. I think this is a victory for us, not a surrender. Of course, these are all matters of opinion, but for those who worked on it for nearly 2 years I am satisfied that we won. Thank you.

Senator PROXMIRE. Thank you very much, Mr. Secretary.

[The prepared statement of Secretary Claytor follows:]

PREPARED STATEMENT OF HON. W. GRAHAM CLAYTOR, JR.

Mr. Chairman, I am pleased to appear before you today to report on the recent settlements of shipbuilding disputes with General Dynamics/Electric Boat Division and Litton Systems/Ingalls Shipbuilding Division. Similar testimony was presented to the House Armed Services Committee on August 3 and August 10 and Senate Armed Services Committee on August 24 and 25.

We need not dwell for too long on the need for resolution of the Navy's shipbuilding problems, particularly the large and long-standing claims backlog. The Armed Services Committees, as well as the relevant Appropriations Subcommittees of both Houses, have repeatedly expressed grave concern over the last few years at the seeming inability of the Navy and the shipbuilding industry to resolve contractual difficulties, a concern that has impacted upon our future programs and eroded the Nation's confidence in our ability to carry out our responsibilities with private industry.

In early appearances before various Congressional Committees we could only bring our plans and hopes regarding the settlement of both the EB and Litton controversies. Today we can discuss the reality of settlements that, when effective, will ensure the continued construction of urgently required ships and that, moreover, are in the national interest.

We found that the claims filed were indeed enormous, as were the shipbuilders' losses faced through unanticipated cost growth. In each of these programs substantial cost growth had occurred as a result of a number of causes. Much of this cost growth was simply not compensable under the older contracts. Moreover, long periods of claims analysis by the Navy were necessary to determine those amounts which could be conceded to be compensable under the contracts. As time passed, and the parties could not agree on a solution, the claims, the impending contract losses and cash flow difficulties began to poison the relationship between the Navy and the builders. An antidote had to be found if the National defense interests in the construction of needed ships were not to be placed in further jeopardy.

During the year in which we sought the necessary solution our seniors in OSD, particularly Deputy Secretary of Defense Charles Duncan, were kept fully and continuously informed to developments in our negotiations. The agreements we reached with General Dynamics and Litton Industries have been endorsed at the highest level of Administration.

#### GENERAL DYNAMICS/ELECTRIC BOAT

I shall now discuss the agreement reached with the Electric Boat Division of General Dynamics Corp., a dispute with implications of traumatic worker layoffs and the prospect of litigation to prevent such action, as well as the impact of the SSN 688 dispute on the TRIDENT program.

The Electric Boat settlement was reached 9 June 1978 only after extremely difficult negotiations lasting approximately nine months, with an uncertain outcome right up to the very last day. During the final negotiations General Dynamics was represented by Mr. Lewis, chairman of the Board, and Mr. Golden, vice president for contracts. Assistant Secretary Hidalgo and I represented the Navy. Final agreement was reached only 2 days before a stop work order involving 8,000 Electric Boat workers would have taken effect unless the courts had granted injunctive relief at the Navy's and Department of Justice's behest.

The details of the Agreement and the Memorandum of Decision invoking Public Law 85-804 were forwarded to the Congress on 22 June 1978. The implementing formal contract modification was delivered to the Congress on 21 July.

Permit me now to highlight the major elements of the Agreement:

To begin with, they achieve the basic Navy goals of a settlement which guarantees continued construction of vitally needed ships, draws to an end a state of mounting acrimony and estrangement between the Navy and a vital supplier of strategic and general purpose attack submarines, and reconciles a contractual controversy that was seriously diverting the financial and human resources of both parties.

Throughout the negotiations General Dynamics was advised that a severe fixed loss would have to be the centerpiece of any settlement. This was the crucial issue which led to a breakdown of negotiations and the announced termination of SSN 688 construction on 13 March 1978. Despite these setbacks, the Navy persisted in its view that EB must assume a full burden of responsibility for its past misjudgements and inefficiencies, particularly in the management of a burgeoning labor force. General Dynamics, with deep reluctance, finally agreed to take the unprecedented fixed loss of \$359 million on the two SSN 688 contracts.

As a result of the agreement, all the gross profits earned by Electric Boat since 1937 will be exceeded by the \$359 million fixed loss. If stated in terms of current dollars, this loss wipes out all EB profits back to 1959. Electric Boat has been the primary Navy design agent for nuclear submarines and was responsible for the design and construction of the Nautilus in 1955, as well as a major portion of the POLARIS/POSEIDON fleet. The \$359 million loss now taken cancels almost all gross profits, expressed in current dollars, for all of these nuclear programs.

The \$544 million claim, which covered events only up to 1 November 1976, was one of the important elements in the negotiations leading to the Agreement. The Navy Claims Settlement Board, under the direction of Rear Admiral F. Manganaro, USN, conducted an extensive technical and legal analysis of the claim under the strict rules of analysis known as "entitlement." This analysis was underway from March 1977 until January 1978 and yielded a figure of \$125 million as recommended adjustments to the existing contracts. Unconditional acceptance of the "entitlement" value was, from the outset, a basic premise in the Navy's negotiating posture, but it was also plain that there was no chance that General Dynamics would accept this claims analysis as full and final settlement of the overall controversy. The Corporation had substantial additional claims in preparation and its officers were fully confident, or at least determined to resort to litigation to prove, that they were legally entitled to a significantly more favorable result.

Adherence to a policy of offering strict entitlement under the contracts, and nothing more, would inevitably have led to years of wasteful litigation and would have further jeopardized ship construction. It also would have ignored the reality that cost growth had occurred as a result of a number of complex causes with blame attributable to both sides and, to a considerable extent, for reasons beyond the control of either party. The negotiating strategy from the outset took these and many other considerations into account. In attempting to resolve not merely



the claims already filed but a complex controversy driven by the mounting losses incurred by the shipbuilder (\$345 million to date) and yet to be incurred (\$498 million to the completion of ship construction in 1974), the following factors emerged in which the Navy shares responsibility:

The costs associated with the overoptimism that prevailed during the program planning and early construction phases resulted in severe financial consequences. All circumstances considered, we are satisfied that the Navy was justified in assuming responsibility for a reasonable share of these consequences.

The delay and disruption caused by late Government Furnished Information (GFI) supplied by the Navy design agent warranted recognition beyond that obtained through strict claims analysis. The inherent difficulties of documenting and analyzing disruptions are well understood in government and in the shipbuilding industry. The lateness of GFI early in the program, particularly as it impacted EB as the follow-on shipbuilder, undoubtedly created a disruption problem that was real despite an inability to quantify it with precision. There is no question that the timing of GFI is one of the most crucial elements in shipbuilding, particularly as it impacts the follow-on shipbuilder. The SSN 688 program started out with some slack to accommodate GFI slippage. However, this was lost early in the program due to the difficulties experienced by Newport News which for the first time was chosen by the Navy as nuclear submarine designs agent.

A point that deserves emphasis is that the quality of the 688 design is not an issue. These are superb ships. The Navy Board of Inspection and Survey has been very complimentary over the production quality of both Electric Boat and Newport News SSNs. However, the fact that GFI was late and had a negative impact on EB's cost to perform, is irrefutable.

Now to summarize the overall results of the reformation of the two SSN 688 contracts at Electric Boat to which the Navy and General Dynamics have agreed. The estimate of cost to complete is \$2,668 million. On the basis of this estimate the Navy will pay EB \$2,309 million through the completion of construction in May 1984 and General Dynamics will assume the \$359 million loss to which we earlier referred. It should be recognized that this loss would not have been agreed to had the Navy not been willing to address the issue of relieving the Company's serious cash flow problem resulting from the heavy amount of unreimbursed costs which had been steadily accumulating under the existing contracts. At the date of Agreement these amounts to approximately \$345 million, a figure which, it is anticipated, will grow to \$360 million by the expected effective date of the settlement. It was in the context of the hard give-and-take of complex negotiations that a \$300 million initial progress payment was ultimately agreed upon by the Navy, thus leaving General Dynamics with \$45-\$60 million of unreimbursed costs as of the settlement's effective date. The balance of the agreed \$359 million fixed loss will be recovered through a proportionate reduction in future progress payments for allowable costs.

The additional money paid to EB over current ceiling for costs and escalation amounts to \$484 million. This includes \$125 million for the filed claim settlement and \$359 million under P.L. 85-804.

The Agreement properly provides certain flexibility in the \$2,668 million estimate to complete. Government-directed changes are a primary action that can increase the amount. The 9 June 1978 Agreement directs that all unpriced changes prior to 9 June be promptly negotiated. These have been negotiated and agreed to on a zero profit basis and amount to \$3.9 million. Changes after 9 June 1978 will be priced on a normal basis and will be incorporated into the contract.

If EB is able to reduce costs, (apart from those resulting from additional changes) below \$2,668 million, both Navy and EB will share these reductions on a 50/50 basis. This is a way for EB to reduce its fixed loss, but will equally reduce the costs to the Navy. If such costs to EB rise above the \$2,668 million, there is a 50/50 share for cost increases up to \$100 million. Above that figure, EB picks up all such additional costs. Finally, if annual inflation rates exceed 7 percent labor and 6 percent material, which both parties agree is within reasonable expectation, EB will be allowed payments for escalation over and above these rates, based on changes in the BLS indices:

The financial aspects of the contract reformation provide strong incentives to complete the two SSN 688 contracts in accordance with the 9 June 1978 Agreement. The terms of the contract reformation provide a strong incentive to EB to achieve significant productivity improvements.

A word about comparative costs for SSN 698 submarines. The only fair way to do this is to compare ships that will be built and delivered in the same timeframes. There are currently 18 SSN's under contract at EB with the last SSN scheduled for delivery in May 1984. There are 13 SSN's under contract at Newport News with the last SSN scheduled for delivery in September 1984. It will cost EB to build 18 SSN's approximately \$149 million per ship. This is roughly \$15 million per ship higher than the costs of building the thirteen SSN's that Newport News is constructing. As a result of the settlement Agreement, however, the Navy will pay EB only approximately \$134 million for each of the 18 SSN's. Also, the Newport News figures do not reflect what might be the full impact of pending claims on its 688 contracts. Therefore from the standpoint of cost to the Navy the EB price per submarine is comparable to the price to be paid to Newport News.

A primary objective of negotiations was to achieve an enduring solution of the Electric Boat controversy. For the following reasons, we believe this has been achieved.

The \$2,668 million estimate to complete is realistic and has been reviewed by a nationally recognized outside accounting firm retained by the Navy, Coopers and Lybrand, as well as by the independent auditors of General Dynamics (Arthur Andersen & Company).

The manpower buildup, with its associated problems and costs, is now largely behind Electric Boat. The current management team at Groton and Quonset Point has instituted a wide variety of controls and training programs designed to improve the productivity of the workforce. A comprehensive material inventory conducted in January 1978, together with other related measures, indicate that the right kinds of actions are being taken to ensure stability and efficiency.

Problems associated with the GFI package have been virtually resolved. The initial issue of detailed design drawings was completed in March 1976 and the volume of revisions has decreased considerably. The parties have agreed to take all steps necessary to process and negotiate changes, unresolved at the date of settlement and occurring subsequent thereto, promptly and on a fully priced basis. Navy's and Electric Boat's top management is committed to monitoring this process to make sure that it works. We are personally committed to follow this closely.

Finally, the risks of inflation, inadequately covered in the two SSN 688 contracts, are fully anticipated by the terms of the contract reformation the settlement provides for.

#### LITTON INDUSTRIES/INGALLS SHIPBUILDING

As with the settlement reached with General Dynamics, the Agreement reached with the Litton on June 20, 1978 and embodied in the June 22 Memorandum of Decision to invoke Public Law 85-804 does much more than merely settle the outstanding claims of over \$1 billion presented on the LHA contract. It addresses the underlying problems and establishes conditions that render unlikely claims against these contracts arising from future events. The history of the controversy and multiforum litigation, the magnitude and complexity of the claims and underlying problems, and the solution hammered out over 9 months of negotiation are all fully discussed in the Memorandum of Decision, submitted to this Committee on June 23. The implementing formal contract modification was forwarded to the committee on 21 July.

I have already spoken of the imperative need for resolution of the shipbuilding claims. The essentiality of action in the specific case of Litton is abundantly clear and long overdue. Thirty-five ships are under contract, seventeen of which are today still undelivered. The Litton yard is the largest and most modern facility in the country for construction of surface ships. It is, indeed, a national asset in terms of our shipbuilding base. Notwithstanding, legal issues and financial considerations dominated the progress of the LHA and DD-963 programs to the detriment of ship construction. By early 1978, 5 years of litigation had not moved the parties any closer to agreement, nor the issues perceptively closer to final disposition. Without relief in some form, Litton would face over six hundred million dollars in losses, with the personnel of both Litton and Navy engaged in depositions, cross-depositions and other burdensome attributes of the litigating process. The situation was rapidly becoming worse.

The action taken in response to these conditions consisted of months of intensive negotiations, backed up by a detailed analysis of the claims and full consideration of the available alternatives. The solution ultimately reached through this process

is believed to be clearly in the national interest. The Navy Claims Team analysis of the almost \$1.1 billion in filed claims concluded that \$312 million in adjustments to the contracts were warranted. Since prior adjustments of \$47 million had to be taken into account, the analysis recommended that \$265 million be paid under the terms of the contracts. This amount is independent of any other contract reformation which would address other basic sources of mounting controversy.

Faced with severe losses on these contracts, estimated at \$647 million, it was obvious that the contractor would not agree to accept the results of the Navy analysis of its claims as the basis for total settlement. Years of further litigation were a certainty. Simply standing behind a barricade of legal defenses would ignore the reality of added costs that were either the joint fault of Navy and Litton or the fault of neither.

Viewing avoidable litigation as detrimental to all parties, we set about pragmatically to find the causes of cost growth and seek a solution that met all reasonable criteria of the national interest. Four principal causes of cost growth emerged.

First, the contractual concepts of total package procurement used on these 1969-70 shipbuilding contracts, and on no others for ship construction, not only failed on all other major weapons systems acquisitions on which they were employed but were especially inappropriate for use on shipbuilding programs. New complex warships simply could not be built under such a drastic reversal of normal design and development roles and responsibilities. It is significant that this form of procurement was discarded by the Department of Defense shortly after the award of the DD-963 contract.

Second, was the use of a new yard, attempting to incorporate new and untested techniques with a rapidly expanding workforce. Anticipated efficiencies were not achieved and the workforce did not possess, nor soon obtain, sufficient levels of necessary skills. The design problems emerging out of the total package procurement responsibilities and the delays traceable to Navy involvement served to compound these problems.

Third, was a general underestimation of the cost involved in designing, developing and constructing ships. This underestimation proved fatal, when under total package procurement, a price was fixed for all the ships early in the development of the ship design.

Fourth, was the state of the national economy. Given the delays caused by all the factors we have mentioned plus unprecedented material shortages, inflation played havoc with costs. The old form of escalation coverage simply did not provide insulation from delays plus the spiraling costs of labor and material in the mid-1970's.

The solution embodied in the settlement agreement recognizes a contractor responsibility quantified, after arduous negotiation, as a loss of \$200 million, and adjusts the contracts for the Navy to assume a share of the estimated increased costs on the LHA and DD-963 contracts. The Navy share, in addition to the \$265 million resulting from the claims analysis, is \$182 million under Public Law 85-804. This division of responsibility was the result of hard negotiation. The contractor also agreed not to invoice the Navy on these contracts for the appropriate share of the \$133 million in costs identified for Manufacturing Process Development (MPD).

Litton will receive \$97 million upon the effective date of the Agreement, leaving approximately \$18 million in net unreimbursed costs on the two contracts. The remainder of the \$200 million loss, or \$182 million, will be paid by Litton over the next 2 years by deduction from otherwise allowable costs, payable by the Navy.

In addition to the essentiality and the fairness of the action taken, a further element is its permanence. The agreement is based on realistic estimates to completion, allows for the sharing on a 50/50 basis of a limited amount of additional cost growth, and provides strong incentives to underrun these estimates by granting eighty percent of saved costs to the contractor. In addition, Litton releases the Navy from all claims on both the LHA and DD-693 contracts with one exception involving a litigation with a subcontractor which cannot presently be reliably quantified except that in the plaintiff's complaint he seeks \$3.7 million in relief. The contract modifications submitted to Congress on July 21 include the full pricing of all changes to April 30, 1978 and delete concepts unique to total package procurement that are considered to have unduly shifted certain risks to the contractor.

Other factors lend to the permanency of the solution obtained. Only 2 years of ship construction remain. With half the ships delivered, design is relatively static. Since virtually all material has been bought or ordered and the present major union

contract will extend through the construction life of these ships, inflation should not be a significant problem.

With respect to both settlement agreements, I am keenly aware that any Public Law 85-804 action should address the question of interpretations and inferences that other defense contractors might draw from a particular decision. General Dynamics will lose \$359 million on the two SSN 688 contracts, without considering interest on invested capital or the profit traditionally associated with a business venture. This is the highest loss ever absorbed by a business enterprise in its dealings with the Navy, and, as pointed out earlier, in terms of current dollars wipes out most of the gross profit made by Electric Boat on the construction of nuclear submarines since the program began in 1955.

In the case of Litton, the agreed upon loss is \$200 million plus the start up or MPD costs of \$62 million related to the LHA and DD-963 contracts which the shipbuilder releases.

Given the results of these settlements, I believe it would be unreasonable for anyone to conclude that another contractor would in its right mind venture down a similar road to obtain the kind of relief that these settlements provide for.

In conclusion, I endorse these settlements as fair and reasonable under the circumstances and very much in the Government's interest. The alternative of years of litigation, with a substantial risk of greater cost to the Government as well as disruption of vital Navy shipbuilding programs, is in my opinion an unacceptable one.

Senator PROXMIRE. Mr. Secretary, you talk about the large losses to the shipbuilders. Of course, there are equally large losses to the taxpayers, as you admit in your prepared statement; so let's take a look at how big and impressive these losses are when we look at some of the objectives here.

Mr. HIDALGO. Excuse me, sir, could I add this footnote here?

Senator PROXMIRE. Yes.

Mr. HIDALGO. I have nothing to really add to what the Secretary said, but I would like the record to indicate, and not have it overlooked in the question-and-answer process, that the taxpayers' interest must be viewed from this point of view as well. Had there been no settlements in the Litton case, there was a court-ordered cost reimbursement on a weekly invoice basis of 91 percent of cost,

That would have meant that in the construction of the LHA's we would have paid \$300 million over ceiling. By that I mean over the terms of the existing contracts.

Secretary CLAYTOR. Under court order.

Mr. HIDALGO. Under court order, yes. Had there been no settlement in the Electric Boat case and we had to go for an injunction as we had in the case of the LHA's and had the matter proceeded as it did in the LHA case with a 91 percent of cost reimbursement, by sheer coincidence the figure over ceiling to 1984 would also have been \$300 million. That means that the taxpayers would have paid \$600 million by the time of the completion of the essential ships and we would still have \$1.088 billion of claims by Litton and we would still have \$544-plus an additional—that is what EB announced—\$750 million of claims. In other words, well over \$2 billion of claims being litigated for 10 years, and until the end of the litigation we wouldn't have known whether the Navy had to pay more than the \$600 million that it had already paid or whether we would recoup some part of that \$600 million.

That is all I have, Mr. Chairman.

Senator PROXMIRE. We will get to that a little later. I could challenge almost everything you said. Before we do that, let's go back to your prepared statement.

You said, "Today we can discuss the reality of settlements that, when effective, will insure the continued construction of urgently required ships and that, moreover, are in the national interest."

How do we know the construction of these ships will continue? How do we know that we won't be faced with claims again and those claims, if they are not paid, paid to the satisfaction of the shipbuilders, that they won't again threaten to shut down as they have done this time and in the past? They can still file claims, can they not?

Secretary CLAYTOR. They can.

Senator PROXMIRE. On the same ships?

Secretary CLAYTOR. I guess I can say "to insure," meaning to be absolutely positive, is perhaps an overstatement. We certainly are in a far better position to have these ships built, because, Mr. Chairman, as I am sure you well know from your vast experience, building a modern warship is a joint venture necessarily between the weapons people, the naval constructors, and the shipyards. It has to be. It takes 7 or 8 years to do.

There are inevitably changes. We are changing our procedures to try to minimize the changes that are made, but there are inevitably changes and this means that there has to be cooperation. The two sides have to work together or this becomes a shambles.

The situation as a result of the things that are detailed in my decision, the historical details, had reached a state of total chaos and shambles. Both sides were accusing each other of all kinds of horrendous things. Each side was protecting its position in litigation.

When one is in litigation, that is what one can do. This atmosphere had to be changed or we were not going to be able to go forward with the shipbuilding contracts. That is what I mean.

Senator PROXMIRE. You have given me the atmosphere and if I were a shipbuilder and getting a settlement of this type, I would feel better for a little while at least, but you accede to the fact this does not insure shipbuilding will by all means continue?

Secretary CLAYTOR. It doesn't.

Senator PROXMIRE. And you agree there may well be additional claims filed and, I guess, inevitably will be?

Secretary CLAYTOR. I did not mean to say there would never be additional claims filed. I did mean to say I think the problems which gave rise to these claims are now cleared away and the likelihood of this situation arising again is in my opinion extremely low, if not nonexistent.

Senator PROXMIRE. Again, referring to your prepared statement:

Final agreement was reached only 2 days before a stop work order involving 8,000 Electric Boat workers would have taken effect unless the courts had granted injunctive relief at the Navy's and Department of Justice's behest.

That sounds as if there is some question, a very big question as to whether the court would have granted injunctive relief. Can you give any instance when they have not granted injunctive relief?

Didn't they grant injunctive relief in the Newport News case in the past and wouldn't the court in these circumstances be most likely to grant that kind of relief when construction of our ships is the issue?

Secretary CLAYTOR. Most likely, yes, but on what conditions we don't know. Also, having practiced law for 40 years or so, I never

want to say with any degree of positiveness what an individual judge is going to do under the circumstances.

Senator PROXMIRE. But that certainly has been our experience, has it not?

Secretary CLAYTOR. I know of only a couple of cases, and in both, Newport News and Litton, the judge did grant the injunction and then also imposed substantial conditions and very onerous ones, particularly in the Litton case.

Senator PROXMIRE. Reading again, from your prepared statement, Mr. Secretary, "General Dynamics, with deep reluctance, finally agreed to take the unprecedented fixed loss of \$359 million on the two SSN-688 contracts."

That sounds as if General Dynamics took a real bath and by doing it they suffered a great sacrifice and maybe it would go to whether or not they could continue as a viable company?

Secretary CLAYTOR. No, no such implication was ever intended.

Senator PROXMIRE. Anyway we talk about "unprecedented fixed loss." Let's see what happened after the loss. I picked up the New York Stock Exchange list and looked at General Dynamics and found their stock is selling at 87, which is close to the highest it has been all year. Obviously the stockholders thought this was a pretty good settlement for General Dynamics and didn't think it was bad or a sacrifice. The low this year was 37. The stock is, in other words, selling at two and a half times what it was earlier in the year. This is hardly viewed by the objective criteria of the marketplace, which is a pretty good evaluator of the progress, or lack of progress of the company, and in this case they seem to think it was a very good settlement for General Dynamics.

Secretary CLAYTOR. I have the General Dynamics prices right here in front of me. They hit a low back around January and February of just below 40. From there on the General Dynamics stock rose constantly up into the middle 1960's until early June. Following the settlement, the stock rose 7 or 8 points.

That would be expected. The stock market abhors uncertainty.

Senator PROXMIRE. It went from 60 to over 80?

Secretary CLAYTOR. No. The 80 continued on up much later. Immediately after settlement it went up about 10 points, but it hit the 80 in the latter part of June.

Senator PROXMIRE. Can we have them take a look at this? They felt in their first judgment it was only worth 20 points, but it is now worth 25 points?

Secretary CLAYTOR. If you look at the stock movement, it has been continuously up from the low of 37 up to the present high. The starting of that rise was long before the settlement.

Senator PROXMIRE. You can't have continuous argument with General Dynamics on enjoying this kind of prosperity and on the basis of the most objective opinion we can get.

Secretary CLAYTOR. Absolutely right. If it was not the objective of both parties, it would never have been made. I certainly never intended to say it was a disaster for the company. If it had been a disaster for the company, they wouldn't have agreed to it. This not a bonanza for the company. They took a terrible bath, but were in a bad situation

anyway. The elimination of the uncertainty certainly was recognized by the stock market as a long-range good thing.

One must remember the stock of General Dynamics is controlled much more by General Dynamics' overall operations than just by the Electric Boat Division.

Senator PROXMIRE. But you can say it was not an overt development, but one publicized widely and involved huge sums of millions of dollars even for General Dynamics. The hundreds of millions of dollars involved are critical and the evaluation by the investors in the company made it clear they thought it was an excellent deal for General Dynamics.

Secretary CLAYTOR. I think it was a good deal for General Dynamics and a good deal for the Navy.

Senator PROXMIRE. The Navy eliminated uncertainty they might get bailed out on the strike, too. Now, as far as Litton is concerned, they had a low this year of 11. I looked at their market quotation yesterday and this stock reached the highest point it reached all year. It went to 27.

Again, that is almost two and half times the low and it finally ended at 26.5, but it was at a very, very high level. So both of these firms—you indicated this morning they took terrible losses and in one case the biggest loss in the history of the Navy. Both of these firms seem to have done extraordinarily well based on any objective criteria that we can get ahold of.

Secretary CLAYTOR. Again, Mr. Chairman, the Ingalls Shipbuilding Division is only a small part of Litton. Litton's stock is controlled by its overall operation, not by the operation of one division. Actually in the case of Litton, although I am not sure it was cause and effect, the stock fell off from about 23 down to about 21 immediately after the settlement. It then gradually came back some weeks later.

I don't think that that is particularly significant. I suspect the stock operations of both companies were more controlled by the overall situation with respect to each company than with respect to this particular settlement with one division.

All of the analysts, and I have read most of the analysts' reports on these companies since that time, have stated both stocks are volatile and both stocks have long-range future potential. Of course, we are now in a generally rising market and since the middle of July, which is the last time I had tallied the stock prices, all stock prices have gone up. The market has improved enormously in the last several weeks and I don't think it has anything to do with this.

Senator PROXMIRE. Mr. Secretary, the market itself has gone up about 10 or 15 percent. These stocks went up over 100 percent, far, far beyond what the market did. You won't find any stocks going from 11 to 27 or 37 to 87, which is what these stocks did. They greatly outperformed the market.

Secretary CLAYTOR. Those rises occurred long before the settlements. The major portion of those rises occurred long before the settlements. I have it all here.

They continued largely after the first of August when the market started to pick up except for the little rise of General Dynamics immediately after the settlement, that one you could say was attributed to it.

Senator PROXMIRE. In the first place, it seems to me the rise is disproportionate to the market price. In the second place, nobody can argue the settlement was in any way negative for either company on the basis of the evaluation we have here.

Mr. HIDALGO. I think I should add something, Mr. Chairman. Mr. Claytor has pointed out that I sat day after day in these negotiations. I can tell you this: It was one on one, mostly with Fred O'Green, president of Litton, and in the case of General Dynamics it was mostly with Mr. Max Golden, vice president for contracts. I can tell you they walked out of my office countless times. I can tell you that the acceptance of this loss was absolute anathema to them. They viewed it as nothing but absolute outrage, they considered it an outrage on the part of the Navy and had countless reasons for saying it, so I would hate the record to show here that this was anything but a tremendously difficult choice by the shipbuilders between 10 years of litigation and accepting these huge losses at this time and it was done with the utmost reluctance. I know it because I lived with it, Mr. Chairman.

Senator PROXMIRE. Well, I want to get into that later in some detail, but what has always been very interesting to me is the very clear-cut incisive positions taken by the Navy professionals and negotiators pleading for claims, led by Admiral Rickover and the top officials of the Navy, the political appointees of the Navy, who have a different and, I think, softer position. Maybe you can justify it.

Mr. Claytor, with all due respect, I think you stated your case about as well as it could be stated and you have done an excellent job. You are an extremely capable and a very effective man and you and I have worked together on some things in the past and I have always been delighted to have you on my side because I think you are very effective.

Secretary CLAYTOR. I hope we can continue to do so.

Senator PROXMIRE. I hope we will do it frequently, but in this case I think it is a poor case full of holes.

In your final sentence you say the alternative to your plan is years of litigation with a substantial risk of greater cost to the Government as well as disruption of vital Navy shipbuilding programs.

What do you mean by "disruption of shipbuilding programs"?

Secretary CLAYTOR. I mean what was going on in Litton before we got into it as an example. The ships were being built only under a court order. There was litigation about, not only the court order, but about the claims going on in front of the Federal judge. There were depositions being taken by Litton of the Navy, by the Navy of the Litton Company and it looked as if this was going to go on for a number of years. In fact, that particular litigation—some form of litigation—before the Contract Appeals Board, or otherwise, had already been going on for 5 years as of 1977.

My experience prior to coming into the Navy had been largely in the form of litigation in the antitrust field. I know what that type of complex litigation does to the operation of any major company or any major organization. It means that the key people who ought to be figuring out how to get the ships built, how to do so more cheaply, how to make improvements, are spending all of their time testifying or answering interrogatories in litigation. Every action taken that



should be driven by business considerations is instead driven by the advice of the lawyer as to what effect it will have on the pending lawsuit. That is the kind of disruption which I meant. Attempting to go forward until 1984, for instance, with the Electric Boat submarines, under that kind of atmosphere, really meant, I think, that we were going to have far more costly submarines and we probably were going to have continued increased delays in delivery of submarines.

The building of ships is a cooperative venture. You cannot cooperate with a fellow you are having bitter litigation with all the time over that kind of time period. That is what I meant.

Senator PROXMIRE. Do I interpret you as saying that this is at the risk of construction or work stoppages, the possibility that the shipbuilder might not complete his construction program?

Secretary CLAYTOR. That is only a small part of it because of the practical matters we pointed out. I think we probably could have gotten a court order to keep it going, but in the process of obtaining it and conducting all litigations going along with it, the disruptions on both sides would be such there would be very little efficient shipbuilding.

I didn't mean they were going to quit and get away with quitting and I am not a bit afraid or frightened by the proposal to stop work. One way or another, we would prevent that, but we would prevent it at great cost in efficient shipbuilding.

Senator PROXMIRE. Just for the record then, I think you answered this in part—isn't it correct that both Litton and General Dynamics threatened to halt construction until the subject of the claims had been settled?

Secretary CLAYTOR. Litton had threatened and been enjoined. General Dynamics threatened to stop work and that was postponed. Then they threatened the second time just prior to the agreement.

Senator PROXMIRE. So they did enjoin Litton?

Secretary CLAYTOR. We enjoined Litton.

We were prepared to go to court on General Dynamics.

Senator PROXMIRE. When did General Dynamics first threaten to stop construction of the 688 submarines?

Mr. HIDALGO. March 13, 1978.

Senator PROXMIRE. What was your reaction?

Mr. HIDALGO. My reaction was they were fed up with the negotiations and felt they had missed the type of opportunity that Litton had found, of actually going into court and forcing an injunction which would, in turn, give them cost reimbursement, 91-percent cost reimbursement. That was their way of doing it.

May I add this in explanation?

The March 13 notice said they would shutdown on April 12. It was then that there was a very helpful intervention in Congress and the postponement—or the second notice really—was responsive to the first notice. It was not really a second threatened shutdown, but simply implementing the first one.

Senator PROXMIRE. I am not sure of that. Isn't it true that in a meeting with officials of General Dynamics shipyard on October 18, last year, you persuaded them not to carry out the threat to shutdown by agreeing to expedite the handling of the \$544 million claim?

Secretary CLAYTOR. No, sir. I was there. There was no threat, but a discussion of a possibility they might make such a threat. We sug-

gested that we thought that would be counterproductive and it was dropped. There was never a threat. There was never a statement that "We are going to shutdown unless," but that was a discussion that we think gives their position as stated.

Senator PROXMIRE. They never said they intended to shut down?

Secretary CLAYTOR. No. They said they would have considered this unless—

Senator PROXMIRE. They would consider it?

Secretary CLAYTOR. That is right. There was no threat and it never reached that point.

Senator PROXMIRE. After that claim and you agreed to expedite the handling of the \$544 million claim—by "expediting" the claim, didn't you mean you would take it away from the Claims Settlement Board headed by Admiral Manganaro and give it to an ad hoc group headed by Secretary Hidalgo?

Mr. HIDALGO. Mr. Chairman, according to the mandate Mr. Claytor gave me to try to do something with the claims, I organized a group around me to work on it. Capt. Ron Jones, since January 1976, with a team of 200, had been analyzing the Litton claim. As you know, the Navy Claims Settlement Board headed by Admiral Manganaro, had been analyzing the Electric Boat claim. So it seemed to make a great deal of sense to bring under this "steering group" I was heading at the time, not an independent analysis, but at least to coordinate so we would move—and one of the essential things in Public Law 85-804 negotiations was that we should start simultaneously with Litton and Electric Boat.

We didn't know where we would end up either, but we wanted to coordinate organizationally because it was indicated to be a very desirable thing. I repeat that in late December I mentioned this briefly to the Secretary, that it seemed to make sense to take the very people working with the Navy Claims Settlement Office and bring them within this "steering group" organization.

As you know, I had the privilege of testifying before you on December 29 with respect to this matter which I feel and will always feel was totally misunderstood and immediately it was returned to the Navy Claims Settlement Board and Admiral Manganaro's aboard went ahead and gave me this \$125 million evaluation in January of this year.

Senator PROXMIRE. At that meeting didn't you also agree to apply to Congress for authority to completely resolve the claims dispute and by this didn't you mean you would request authority under Public Law 85-804?

I am talking about the October meeting.

Secretary CLAYTOR. The October meeting? You mean the October meeting with General Dynamics?

Senator PROXMIRE. That is right.

Secretary CLAYTOR. No, no. We made no commitment as to what we were going to do except we would work on trying to find the solution to the problem. One solution might be to use Public Law 85-804 and we discussed that possibility.

Senator PROXMIRE. In fact, the claim was taken away from the Manganaro board soon after the October 18 meeting, was it not?

Mr. HIDALGO. Let me make this clear. It was done in December, not shortly after. Two months is a long time.

Senator PROXMIRE. It was done in December? What date in December?

Mr. HIDALGO. It was December 1. Let me say at the October meeting with the Secretary, and this is later, the main subject was whether we would be able to resolve the problem with Litton of putting on the litigation in a suspended status and getting the reduction to 91 percent of cost reimbursement, which we had talked about doing—that was the main subject discussed because unless we were able to do that, we couldn't move forward with negotiations.

Senator PROXMIRE. And you decided to expedite the claim because of General Dynamics' threat to shut down?

Mr. HIDALGO. Not at all.

Senator PROXMIRE. Why did you?

Mr. HIDALGO. Nothing was expediated. Admiral Manganaro went ahead with the evaluation the way he had normally done and I never suggested to him how he should do it. Indeed, when he gave me his evaluation in January, it took many months of negotiations before we had a settlement agreement, so there was no rush with that.

What you may have in mind, Mr. Chairman, is that Capt. Ron Jones, with his team of 200, did go on a very intensified basis in evaluating the Litton claim. That may be what you have in mind, because the last portion of the Litton documentation was presented in September of 1977.

Senator PROXMIRE. I will read from a General Dynamics letter of March 13, 1978, signed by Adm. C. R. Bryan. The letter is signed by P. T. Veliotis, general manager of Electric Boat Division. I am reading from page 3 of that letter:

On October 18, 1977, our top management met with the Deputy Secretary of Defense, the Secretary of the Navy, and the Assistant Secretary of the Navy and indicated our intention to serve formal notice of discontinuance of performance. We were dissuaded from doing so on the representation that the procedures under which our claims were being processed would be changed and expediated and that a complete resolution would be effected forthwith by application to Congress for authority. Indeed, some steps were initially taken by the Navy to this end.

However, events which have transpired since, including the return of our claims to the Settlement Board which has had them for 15 months and the assertion of spurious allegations of fraud, made an expedited resolution of the claims or even a curtailment of our need to finance performance wholly uncertain. Under these circumstances, we have no alternative but to pursue our rights resulting from the Navy's breach of the 688 contracts.

Then, form page 13 of that letter:

Since the October date numerous discussions have been held between personnel of the company and the Navy, the objective of which has seemed uncertain and often changing. The Assistant Secretary represented that he had withdrawn the company's claim from the Settlement Board so that a newly formed steering committee could deal with them more expeditiously. This seemingly optimistic move was subsequently summarily reversed and the claims continue to reside at the Board which has had them for 15 months.

So it seems very clear in writing, the Electric Boat letter, dated March 13, that on October 18 they threatened to stop work.

Secretary CLAYTOR. They didn't. They said they might have to and we said that we thought—our position was we were just getting started then on negotiations.

Senator PROXMIRE. I will tell you what they said, and I quote:

Our top management met with the Deputy Secretary of Defense, the Secretary of the Navy and the Assistant Secretary of the Navy, and indicated our intention of a formal notice of discontinuance of performance.

If that is not a threat to stop work, I don't what it is.

Secretary CLAYTOR. Mr. Vehotis was not there and I don't think it is an entirely accurate statement of the meeting.

MR. HIDALGO. Sir, I think we are dealing with a semantics problem.

Senator PROXMIRE. The semantics are pretty clear to me if you can read the English language and understand it.

MR. HIDALGO. I have already mentioned time and again that Electric Boat said they felt they had not followed the appropriate procedure. What they should have done was to stop building, forced the Navy to enjoin, and then get at least a 91 percent of cost reimbursement. The way they were heading, they were going to be \$843 million beyond the curve in building the ships. This was their argument. They were upholding their position. If somebody wants to call that a threat, I just say "Be my guest," but they were stating what their position should be.

Senator PROXMIRE. Mr. Hidalgo, so you recall your testimony to this committee last December and the discussion of the removal of the General Dynamics' claim from the "Manganaro board"?

MR. HIDALGO. Do I recall it?

Senator PROXMIRE. Yes.

MR. HIDALGO. Yes, I testified before you, yes, sir.

Senator PROXMIRE. All right. In that testimony didn't you say that the claim was being removed for organizational reasons?

MR. HIDALGO. Yes, sir. That is true.

Senator PROXMIRE. You also said the plan to remove the claim was discussed with Admiral Manganaro and other Navy officials beginning in late October 1977?

MR. HIDALGO. That is right.

Senator PROXMIRE. That was soon after the October 18 meeting with General Dynamics, was it not?

MR. HIDALGO. Yes.

Senator PROXMIRE. Do you deny that the decision to take the claim away from the "Manganaro board" was made at that October 18 meeting?

MR. HIDALGO. It was not made at that meeting, not at all. It was not mentioned to Electric Boat. The first person I mentioned it to for organizational reasons was to the Secretary.

Senator PROXMIRE. Didn't you tell Admiral Manganaro you would do it right after or shortly after the meeting?

MR. HIDALGO. No. I don't think so—right after. I can't give you an exact date. I couldn't do anything unless I had discussed it with Secretary Claytor. Frankly, you gave it too great importance, because the identical people working in the Navy Claims Settlement Board were going to be doing the same thing, simply with a new diagram and an organizational chart. I never understood what all the fussing was about.

Senator PROXMIRE. You might say it was not right after the meeting, but it was after the meeting or within a couple of weeks, because on October 31, the decision was made.

Mr. HIDALGO. The big point at the October meeting, I insist, and I was there and there is no other answer to it, was to see if we could put the Litton litigation in suspense, on the shelf. I was then negotiating with Mr. O'Green on that and there were many things to be done with the Department of Justice.

Senator PROXMIRE. You are talking about the meeting with General Dynamics?

Secretary CLAYTOR. That is right. The point we made with General Dynamics, Mr. Chairman, was that we were at the start of an attempt to settle the overall problem. We had not started. We were looking forward to doing it. We made clear to them that the two problems, while they were not concerned with the Litton problem—the two problems would have to be handled in parallel, that Litton had to be cleared first because of the pending litigation, and we said:

You fellows relax. We will reach you as soon as we can. You must understand that we must get this interim settlement with Litton and clear that litigation up or we can't go forward with them, and if we can't go forward with them, it will be difficult to go forward with you.

That is essentially what was done in the October meeting. They said to me—and they precipitated the meeting by coming to me and saying, "We want to talk to you because we feel there is no alternative to a shutdown if things go on like they are."

Senator PROXMIRE. Wasn't that a threat? It sounds like one.

Secretary CLAYTOR. All right. The facts are perfectly clear. I don't call it a threat. If you want to call it a threat, all right, but that is the situation as it occurred.

We then went forward with the two negotiations. We got started real good with Electric Boat after we had cleared up the Litton situation.

Senator PROXMIRE. Before you go on, Mr. Hidalgo, let me read your testimony to us when you appeared before this committee.

Mr. HIDALGO. There is one point of memory that I think is helpful to all of us, Mr. Chairman. At that meeting in October, I recall clearly we told Electric Boat, Mr. Lewis, who was there, that we hoped we would be able to resolve the Litton litigation problem, which the Secretary just referred to, by mid-November and we would be in touch with them by that time. Then we would try to move forward with negotiations.

The fact is, the first negotiation meeting was on December 1. That was the first meeting I had with Electric Boat.

Senator PROXMIRE. Well, this testimony of yours indicates that you made that decision between October 18 and the end of October. That was testified to before us last December.

Briefly stated:

Mr. Chairman, those are the broad considerations which led to the Navy decision sometime last October. I want to be very specific about this: First, to undertake discussions with Litton and Electric Boat aimed toward resolution of not only the claims themselves, because it would leave a lot of unfinished business of great importance, but also to get to the underlying problems, and this is a vital point to understand.

Now, how do you reconcile this with the explanation you made of taking claims away from the Board? Was it for organizational reasons, to achieve singleness of authority, as you put it, or was it to appease the shipbuilder which was threatening to shut down?

Mr. HIDALGO. Not the latter.

Secretary CLAYTOR. Not the latter under any circumstances.

Mr. HIDALGO. Sir, we are making a mountain out of a molehill. That business of an organizational move is acquiring an importance that it does not deserve.

Senator PROXMIRE. When I asked you before in your previous appearance, Mr. Secretary and Mr. Hidalgo—when I asked you to explain the decision to take the claim away from the Board—why didn't you mention the meeting and the agreement with General Dynamics?

Mr. HIDALGO. The only thing in my mind concerning the meeting with General Dynamics—the October one—was indeed to see how we could move forward with negotiations. At that time the evaluation of claims was not foremost in my mind.

Senator PROXMIRE. That is not what General Dynamics thought and what I just read you. During our hearings of last December, Admiral Manganaro testified that his claims review team would have completed the evaluation of General Dynamics' claim in 2 to 4 weeks had it not been taken away from him and soon after that hearing you returned the claim to the Board; is that correct?

Mr. HIDALGO. That is correct, and he completed his evaluation, as I recall, at the end of January.

Senator PROXMIRE. When was the claim returned to the Board and when did the Board complete its evaluation?

Mr. HIDALGO. Early January and Admiral Manganaro completed his examination of the \$125 million at the end of January.

Senator PROXMIRE. Isn't it true that Admiral Manganaro concluded the value of the claim was about \$60 million?

Mr. HIDALGO. I never heard that figure.

Senator PROXMIRE. Let me go on.

Secretary Claytor's statement says the analysis of the "Manganaro board" yielded a figure of \$125 million as recommended adjustments to the existing contracts.

How much of that figure represents litigative cost and litigative risk and who made the estimates of litigative cost and litigative risk?

Mr. HIDALGO. Admiral Manganaro did it all. I didn't interfere. He just gave me the figure of \$125 million.

Senator PROXMIRE. This is Admiral Manganaro's testimony of last May.

My last question was: Would it be fair for me to assume the Government found only \$60 million of liability out of a \$544 million claim? Admiral Manganaro's answer was:

I won't draw the conclusion—it found only that much liability—but it is reasonable to assume that amount is characteristic of the breakdown between entitlement and litigated risk; yes, sir.

Mr. HIDALGO. Well, that was his answer. I didn't do it, so I have no view.

Senator PROXMIRE. He did evaluate it at \$60 million?

Mr. HIDALGO. I don't know. He gave me a figure of \$125 million, as the figure that he would consider he would submit to the shipbuilder.

Senator PROXMIRE. Under oath, and he testified before our committee and he said, "\$60 million outside of litigative costs."

Mr. Secretary, is it correct that by early March of this year negotiations with General Dynamics were at a standstill and that the reason was the low value placed by the "Manganaro board" on the claim?

Secretary CLAYTOR. The negotiations were entirely in Mr. Hidalgo's hands and his memory is better than mine, but I don't think so.

Mr. HIDALGO. There was no standstill and, Mr. Chairman, it would not be forthright to you not to say that the General Dynamics' negotiators, specifically Mr. Golden, were horrified by the evaluation of \$125 million and they objected strenuously and my response was, "That is the evaluation and I don't touch it, it is an untouchable figure."

Now, that is the first step in our negotiations. That is the evaluation figure.

Senator PROXMIRE. I quote from page 14 of the letter from General Dynamics which I quoted from before. Here is what they write: "Finally, on March 12, 1978, the settlement negotiations failed."

Mr. HIDALGO. The settlement negotiations.

Senator PROXMIRE. They put that in writing?

Mr. HIDALGO. That is right. There was an impasse. I won't use the word "failure."

Senator PROXMIRE. That is what I am asking about.

Mr. HIDALGO. But they failed, not because of the \$125 million—they failed because of the fixed loss that I absolutely insisted they had to take, in the neighborhood of \$400 million. It wound up at \$359 million. That is the reason the thing broke down.

Senator PROXMIRE. Is it true, Secretary Claytor, that on March 13, 1978, General Dynamics notified the Navy that negotiations had failed and that it was going to shut down shipyard construction on the 688 submarines on April 12, 1978?

Secretary CLAYTOR. I believe so, yes.

Senator PROXMIRE. Previously the Navy had offered to pay General Dynamics about \$20 million in provisional payments, pending final settlement of the claim, but the company turned it down.

Mr. HIDALGO. I don't know what provisional payment you are talking about. When it was agreed that there would be a 60-day moratorium on the shutdown through June 11, that was done on the condition that we would come up with whatever an appropriate provisional payment would be under the existing contracts and Admiral Manganaro gave the figure of \$24.5 million.

Senator PROXMIRE. You say \$24 million?

Mr. HIDALGO. Well, \$24 million.

Senator PROXMIRE. Let me read again from the letter in writing from the Electric Boat Division.

On December 28, 1977, you proposed to make a provisional adjustment which would result in the obtainment of an amount of approximately \$12 million on our claims.

Mr. HIDALGO. Thank you.

Now you reminded me.

Senator PROXMIRE. Prior to that date we indicated the provisional payment was not only essential, but would have to be in a certain sum.

Mr. HIDALGO. You reminded me. Admiral Manganaro made that offer and it was inadequate and insufficient for the monthly cash shortfall, which was \$15 million.

Senator PROXMIRE. \$12 million?

Mr. HIDALGO. It was \$20 million, but it ended up under the share-line process.

Senator PROXMIRE. After the March 13 threat—

Mr. HIDALGO. Sir, I have not finished my answer, please.

With regard to the other provisional payments it was a condition of a 60-day moratorium and that was actually \$66 million, which again, if you applied the share-line, became \$24 million.

Senator PROXMIRE. I want to get to that.

After the March 13 threat to shut down in April, you offered the company \$60 million in provisional payments. It seems to me there is a connection between the shutdown threat and the large increase in provisional payments. How do you explain the fact that you tripled the offer of provisional payments after receiving the threat to stop work?

Mr. HIDALGO. Admiral Manganaro made the computation without any influence from any of us and he said it was certainly the minimum under any conditions of litigation and what they would be entitled to, and it was acceptable to the Navy. We didn't argue that.

May I say that the General Dynamics people, Mr. Lewis, and others, were extremely dissatisfied, because they felt they would get \$30 million for those 2 months, because the cashfall was \$15 million a month.

Senator PROXMIRE. When General Dynamics accepted the beefed-up provisional payments, it gave the Navy a 2-month moratorium on its shutdown threat, moving the date from April 12 to June 12, 1978. Were you relieved that you had this extra time to work out a settlement?

Mr. HIDALGO. We were hopeful and it proved true.

Senator PROXMIRE. And on June 9 a settlement agreement was reached?

Mr. HIDALGO. The settlement was made, that is right.

Senator PROXMIRE. Do you deny that there is a connection between the June 12 deadline set by General Dynamics and the fact that an agreement was reached on June 9, just 3 short days before? Didn't you make a firm effort to reach agreement in order to avoid the shutdown?

Mr. HIDALGO. Sir, Secretary Claytor and I, in meetings with General Dynamics that week, and June 9 was a Friday, we met with them in Chicago on Tuesday and there were any number of phone calls on Wednesday and simply stood fast on \$359 million, whether there was a June 12 deadline or there wasn't. We didn't care. We stood fast on that.

Secretary CLAYTOR. We had our lawyers lined up already in Connecticut ready to file an injunction. I think, if anything, the pressure was on them at that stage of the game, because it was not in their interest to go forward with the shutdown and there was a great deal of pressure from Congress for them not to go forward with that, from the Connecticut delegation and others. We stood firm after our meeting and they finally accepted our offer.



Senator PROXMIRE. Mr. Secretary, this is so interesting and I hate to do this, but there is a rollcall going on on the floor and I will have to depart for 12 or 15 minutes and I do regret it very much, because I have enjoyed this more than any meeting I have taken part in in a long time.

Secretary CLAYTOR. As a matter of fact, I am, too. I think it has been rather good.

Senator PROXMIRE. I will be back as soon as I possibly can.

[A brief recess was taken.]

Senator PROXMIRE. Mr. Hidalgo, the problem I have is in understanding the rationale for paying the contractor the extra \$359 million on top of the \$125 million. It seems to me you are giving away \$359 million because you lack the force to enforce the Navy's contractual rights, because you have no stomach for a court fight and because you are afraid General Dynamics will stop construction.

Mr. HIDALGO. Sir, it was not either fear of a court fight nor any of the things that are embodied in that question. It was simply a pragmatic judgment as to how far the Navy's interest should carry us: to what figure we should go in trying to reach a settlement. It was a very difficult judgment as we went along as to the point at which the other side might say that they would prefer to litigate.

Now, that was their call. It was also Mr. Claytor's call and I, on his behalf, as to how far the Navy's interests should carry us, reasonably weighting all factors, how far we should go to protect the national interest, and on top of the \$125 million, which was a strict evaluation analysis, as a result of that how far we should go, and the \$359 million figure which Mr. Claytor has spoken about seemed to be a prudent figure.

Senator PROXMIRE. Suppose, Secretary Claytor, instead of a giant corporation and one of only two shipbuilders building nuclear submarines, you were dealing with a small firm in a competitive market. If such a firm threatened to stop working on Navy contracts unless the Navy paid its cost overruns, would you do it? Would you cave in to such a demand from a small firm?

Secretary CLAYTOR. I wouldn't cave in and I didn't cave in to these people. Let me say, Senator, I spent most of my professional life in litigation. The suggestion that I am afraid of litigation is just incredible—incredible. I enjoy litigation. It is fun. I would love to have been the lawyer for the Navy in this litigation and fought it for 5 years.

Senator PROXMIRE. I didn't get that flavor from your prepared statement in which you said, "If we hadn't done it, we would have had more litigation and litigation would have gone on and on."

Mr. CLAYTOR. Well, there I am talking in the position of a client. I have also seen what litigation and the problems of conducting litigation can do to a client. In this particular case, unhappily I am not the lawyer to have the fun in litigating, I am the client and am representing the client and it is not a very satisfactory way to settle this type of complex dispute over the years with all of the disadvantages attached.

Now, the disadvantages apply to both. One of the greatest disadvantages is that no one knows what these claims are worth. No one is going to know what those claims are worth, the \$2 billion approxi-

mately between the companies, until a final decision by the court and a last appeal.

Senator PROXMIRE. If this were a small firm, you would simply recognize this as your objective, if you were building a house and it was your contractor?

Mr. CLAYTOR. That is not necessarily so. I have not dealt with that problem. I think every case has to be looked at in its own light and whatever the interests of the Government are in the overall picture, those are the interests that have to be predominant. I have not had that case and I can't answer the question hypothetically.

Senator PROXMIRE. Is there any difference between this and the *Litton* case, or General Dynamics and Litton—where it seems that your concern is you are afraid of continuous court battles and a possible slowdown if you do not pay, in that case, \$182 million in addition to the value of its claim?

Mr. HIDALGO. Sir, I spoke to that partially and mentioned to you that had we remained without a settlement and litigated, we would have wound up paying Litton over \$300 million over ceiling under the existing contract.

Now, here we are for the \$182 million under Public Law 85-804 disposing of the entire situation.

Mr. Chairman, I wonder if there has been brought to your attention the uncertainties of litigation, and, by the way, I was a trial lawyer also, so I don't fear it, I greatly enjoy it, but I wonder if it has been brought to your attention that Litton brought suit against the Navy in the so-called *Project X* case, cross impact on 19 ships; as I recall, and the cross impact was novel and the Navy's offer of settlement in the case was \$6 million.

The Board of Contract Appeals, 3 months ago, awarded Litton over \$50 million. That is the type of uncertainty that the Navy would have been confronted with over the next 7 to 10 years.

Senator PROXMIRE. Well, you know, in the event that the court settles for a larger amount that does not concern me as much as having this settled by some kind of an arbitrary negotiation. The court at least takes all of the equities into consideration. The court is a dispassionate objective umpire and the court makes its decision based on the law and also on the equity and the merits. However, we settle for what certainly seems to be an extraordinary advantage to the company and one that in the case of General Dynamics was reflected and you can see it was reflected in what happened with their stock after the settlement was made. It was more than what most people thought they would get.

Let me say that the trouble, Secretary Claytor, with capitulating to threats, is that you encourage others to make threats to get what they want. I notice in your prepared statement you stated that certainly couldn't be the case here because the losses were so great. But I believe other shipbuilders and other contractors will threaten work stoppages and will demand that Public Law 85-804 be used to get the Government to pay for their cost overruns.

Secretary CLAYTOR. The threat of work stoppage is really not a threat here. If there had not been a threat of work stoppage, we would have reached the same settlement. The threat of work stoppage is immaterial. This was very persuasive, and I was not a bit worried

about the work stoppage. The problem was the disposition of the entire controversy and how it was going to be disposed of and what the chances were in the long run, when we were all through, that what the Government was going to end up paying would be as much or more money, as well as putting up with all of the disadvantages as we go along.

The most important thing was 15 of the critical submarines were still undelivered. Never mind the work stoppage, because I think there are ways and means, as I say, of coping with that. If we were litigating over those submarines while we tried to finish them, the chances of their being finished in any kind of decent schedule or the chances of our being able to finish them and do it efficiently were nil. That was an important factor, I think, in the national interest, plus the fact that one could not be sure that we were going to pay one nickel more than it was going to cost us in the end and it might be considerably less than in the end.

Those are factors that one uses when one is in the business of settling this type of claim. I settled a lot like this with the company I headed with suppliers and we looked at those factors in the same way that I looked at them here on behalf of the Government.

I have never had anything of this size, of course, but exactly the same approach was used in protecting the interests of my stockholders that I tried to use here in protecting the interests of the taxpayers. It necessarily involved judgment. This was my best judgment and I think I am right.

Senator PROXMIRE. You say you have had experience. Have any of your suppliers in business threatened to shut down?

Secretary CLAYTOR. Threatened not to do business with my company any more, and sometimes that is pretty important.

Senator PROXMIRE. That is different than when you have two shipbuilders threatening to shut down. In your own words, Mr. Secretary, in the concluding part—the last sentence—of your prepared statement, and these are not the words of Herblock or the words of Proxmire, but the words of Secretary Claytor.

The alternative of years of litigation, with a substantial risk of greater cost to the Government as well as disruption of vital Navy shipbuilding programs, is in my opinion an unacceptable one.

You chose those words.

Secretary CLAYTOR. I did, indeed, and I still stand by them and "disruption" does not mean "stopping work." The work was not going to be stopped. The disruption is disruption that results from trying to build ships in the middle of a controversy. That is a disruption and that is what I meant and what I still mean.

Senator PROXMIRE. A controversy is something we all live with, something we are having this morning. It does not necessarily stop the wheels of progress, they can continue. But what do you talk about when you say disruption is controversy—well, every time they file a claim there is controversy—

Secretary CLAYTOR. There are levels of controversy and the highest possible level is total litigation about everything involved in the whole procedure and at the same time trying to cooperate in the construction of something that is necessarily part of the operation. It can't be done.

Senator PROXMIRE. Let's go back. Getting back to the original point, that capitulation is likely to cause other shipbuilders to threaten work stoppages in order to get bailed out.

In my written questions to you of July 28, 1978, I inquired whether any shipbuilder other than General Dynamics or Litton had requested Public Law 85-804 relief since announcement of the General Dynamics settlement. You replied that no such requests have been made since June 9, 1978.

Isn't it true that Newport News had asked that its claim be settled under Public Law 85-804?

Mr. HIDALGO. Sir, in the beginning of my discussion last October, with Newport News, and I have had enough time to analyze the three situations, we made it clear that Newport News of Tenneco—that the use of Public Law 85-804 in that situation seemed to be extremely remote and unlikely. We had to find a way to reach a settlement within the four corners of the contracts with possible exceptions on minor items.

So, yes, there was that difference, sir, in the case of Newport News.

Senator PROXMIRE. Did they request or did they not request that Public Law 85-804 be used for settlement of their claims?

Mr. HIDALGO. I don't remember in the meetings I had.

Senator PROXMIRE. Is this General Dynamics?

Mr. HIDALGO. Are we talking about Newport News?

Senator PROXMIRE. Yes, sir.

Mr. HIDALGO. I don't remember any specific requests by Mr. Diesel of that kind except to say they felt they needed relief, were entitled to relief, that they had had a great deal of difficulty in their work with the Navy, that they had had a miserable profit picture and that whatever form the relief might take was our concern and really not theirs.

Well, had I said Public Law 85-804—I also said the contrary. I said I would not use Public Law 85-804 except in a marginal situation that might have existed.

Senator PROXMIRE. Secretary Claytor, I will ask the clerk to give you a letter and I will ask you to look at this letter from the Newport News Shipbuilding Co., dated June 21, 1978, signed by J. P. Diesel, chairman of the board, addressed to Assistant Secretary Hidalgo.

I would also like Mr. Hidalgo to look at the letter. I would also like to ask you whether either or both of you have seen it before?

Isn't it correct that Newport News asks in the letter to be given the same treatment as its competitors, General Dynamics and Litton, and be settled under Public Law 85-804?

Secretary CLAYTOR. Under Public Law 85-804, yes, sir, that is correct, and I repeat my statement, that I systematically said I didn't feel there was room for that application in the case of Newport News.

Senator PROXMIRE. Then why isn't the answer to the question I asked clearly affirmative, that another shipbuilder has asked to get the same treatment?

Mr. CLAYTOR. You are right. I accept that, yes.

Senator PROXMIRE. Isn't it also correct Newport News attached to this letter a study designed to show that Public Law 85-804 can be used to provide "relief" to Newport News even though it would result in Newport News making a profit on its Navy contracts?

Mr. HIDALGO. I suppose that is what they had in mind, yes. I suppose so.

Senator PROXMIRE. At least in the first two paragraphs of Mr. Diesel's letter.

Mr. HIDALGO. I see that. They say that.

Senator PROXMIRE. Let me state this: You have told me that Public Law 85-804 would not apply to this company. You also expressed a belief indicating the situation of Newport News is different from the other two companies as to conditions. This apparently relates to your position that Public Law 85-804 does not provide relief to contractors who are not in a loss position. I had a careful study performed and it conclusively demonstrates that there is absolutely nothing in the law or the regulations which will prevent you from making a settlement with Newport News which results in a profit. The results of our study are summarized in the enclosure.

Mr. HIDALGO. I won't quarrel with that, but I told Mr. Diesel we would not apply Public Law 85-804 except, as I repeat, in some marginal situation.

Senator PROXMIRE. I will now read the title, and the opening and concluding sentences of the study attached to Mr. Diesel's letter:

MEMORANDUM IN SUPPORT OF PUBLIC LAW 85-804, SETTLEMENT OF NEWPORT NEWS CLAIMS

IT IS IN THE INTEREST OF NATIONAL DEFENSE TO SETTLE NEWPORT NEWS' CLAIMS BY USE OF PUBLIC LAW 85-804

There is ample authority under Public Law 85-804 to settle Newport News' claims if doing so will facilitate the national defense."

The concluding paragraph briefly says:

All of the above dictates that the authority of Public Law 85-804 be invoked to settle the company's claims notwithstanding the fact that a profit allowance will be included. In fact, to do otherwise would be to reward the less efficient shipbuilders to the detriment of the company which is more efficient—a result which certainly was not intended by the drafters of Public Law 85-804.

All of the above dictates that the authorities of Public Law 85-804 shall be invoked in settlements of companies' claims notwithstanding the fact that allowances will be included in other ways. In the estimate of the company, which is more efficient, the result was certainly not intended by the drafters of Public Law 85-804.

Mr. HIDALGO. I have no quarrel with that. That is Mr. Diesel's statement.

Senator PROXMIRE. Let me ask, Mr. Secretary, how you can reconcile your response to my written questions of July 28 with these documents?

Secretary CLAYTOR. I don't think there is any difference there at all. As to Newport News, the fact that Newport News naturally was one of the three shipbuilders that we listed from the beginning on, which we were going to work and that Newport News obviously would have liked to have had the same type of Public Law 85-804 settlement if that would get them what they wanted—I suppose that one can expect that whether or not these settlements were made or whether or not they were approved, or are approved, someone will always be asking for something and the fact is not whether they asked for something, but the question is whether they get it.

Senator PROXMIRE. Well, the question is also what happens when we set this precedent? And Herblock has an interesting point when he points out that "We always put the guns in place first" and the gunners say, "Pay us a few hundred million extra or we shut down."

Secretary CLAYTOR. That does not bother anyone in the Navy one little bit and that had nothing to do with our willingness to agree to the settlement. I keep repeating myself on that.

Senator PROXMIRE. Let me go on to this.

I inquired of Mr. Claytor whether any shipbuilders other than General Dynamics or Litton had made requests under Public Law 85-804. You replied that no such request had been made since June 9, 1978. When I followed up, you said you didn't recall any.

Now you admit they made that request and made it in writing in a letter.

Mr. HIDALGO. Sir, this letter to me is not a formal request for Public Law 85-804. It was response obviously by Mr. Diesel, an attempt to persuade me that Public Law 85-804 should be considered in the Newport News situation, a thing that I absolutely refused to do. That is all.

He was trying to be persuasive. He shouldn't be denied that right.

Senator PROXMIRE. I know we are having trouble with semantics. If this is not a formal request, I have never seen one.

Mr. HIDALGO. I don't know. My lawyer sitting in back of me says it is not a request. I am not going to argue about that again. The request is one I reviewed and denied.

Senator PROXMIRE. Those facts demonstrate at least one contractor has been encouraged by this to seek similar treatment under Public Law 85-804.

Mr. HIDALGO. Not at all. The discussions with Newport News, as I said a minute ago, have been going on with them since last October, at which time I had no idea where the General Dynamics situation would end.

Senator PROXMIRE. Are you still negotiating with Newport News?

Mr. HIDALGO. Yes.

Senator PROXMIRE. You will settle it without Public Law 85-804?

Mr. HIDALGO. Except in one marginal situation, sir, where there may have been a mutual mistake under an existing contract and that is a minor item, and the answer to your question is "Without Public Law 85-804."

Senator PROXMIRE. What do you mean by "minor"? How much money?

Mr. HIDALGO. I hate to discuss something that is an integral part of a negotiation and I shouldn't do it.

Secretary CLAYTOR. We haven't gotten the deal yet and we shouldn't discuss it.

Senator PROXMIRE. You might go into Public Law 85-804. You say, for one part of the contract and you don't say how big it is. You say it is not very big, but you don't tell us how large it is.

Mr. HIDALGO. Whatever it will be, it will be below the limits of the well-known Proxmire amendment.

Senator PROXMIRE. Of the \$742 million in pending Newport News claims how much did the Navy Claims Settlement Board determine they were worth? How much of that amount is for litigative risk? How much is for litigative cost?

Mr. HIDALGO. That, also, sir, is an integral part of current negotiations, which I don't believe we can speak to.

Senator PROXMIRE. If the decision is already made, why can't you speak to it?

Mr. HIDALGO. No decision has been made. There has been a recommendation.

Senator PROXMIRE. What was the recommendation?

Mr. HIDALGO. There is a recommended evaluation, which I don't believe I should discuss in any open session, sir.

Senator PROXMIRE. The "Manganaro board" made a recommendation?

Mr. HIDALGO. To me, yes, sir.

Senator PROXMIRE. Well, they made a recommendation. It is a fact then. You could reject it, but you couldn't change it or wouldn't change it?

Mr. HIDALGO. It is an integral part of the negotiations and I am sure Secretary Claytor would not view as proper any reference to that at this time. I am sure it would be counterproductive and I am sure you would not wish that.

Secretary CLAYTOR. That is right.

Senator PROXMIRE. Hasn't the figure been communicated to Newport News? Don't they know about it?

Mr. HIDALGO. It has been communicated to Mr. Diesel in my private discussions.

Senator PROXMIRE. Then, after all, the Navy knows it and the contractor—or the only people that don't know it is the Congress and the public. Why shouldn't they know?

Mr. HIDALGO. Because it is still an unsettled thing, part of a total package. We are dealing with Newport News and Mr. Diesel is thoroughly in accord with this, the way we have done with other settlements, to put to rest all pending matters—there must be 15 such highly complex matters.

Senator PROXMIRE. I can't understand why would you communicate it to Newport News as the interested party with whom you have to negotiate it, if public disclosure would in some way prejudice it. I can't understand how it can possibly prejudice it except to give the other negotiating party information that you would like to withhold.

Mr. HIDALGO. Sir, for the same reasons that in negotiations with General Dynamics and Litton we communicated, I remember I used to talk of three boxes and box A was what the strict entitlement analysis value was. That was one of the elements of the negotiation. In the other two cases it was how far we would go under Public Law 85-804, so it is just as much an integral part as it was then and we didn't communicate what the recommended value figure was.

Senator PROXMIRE. All we want is what the "Manganaro board" said.

Mr. HIDALGO. There is no final finding, but simply some figure still under consideration and which has to be discussed.

Senator PROXMIRE. You just told us you disclosed that figure to the contractor.

Mr. HIDALGO. As I did in the case of General Dynamics and Litton, because it was only one element in the overall settlement and you couldn't publicly discuss that.

Senator PROXMIRE. The only way the public and the Congress can evaluate it is to have the facts and the influence on this.

Secretary CLAYTOR. Sir, you will have the facts. If either the negotiations break down or terminate, you will have the facts. If the settlement is reached, you will have the facts, but pending at this time—this is an extremely delicate thing to make public any of the elements that go into a negotiation which is still in limbo and I think no businessman who is engaged in any kind of negotiations can discuss this.

Senator PROXMIRE. Give me your reason behind disclosing this figure to the contractor with whom you are negotiating and not disclosing the figure to the Congress and the public.

Mr. HIDALGO. Because it is not timely yet. We are not disclosing any of the figures in any negotiation.

Senator PROXMIRE. You are a party and the Navy is a party of interest and, Heaven knows, the taxpayers and Congress are parties in interest, but we are kept in the dark.

Mr. HIDALGO. I am sorry, sir, you had not heard me earlier. If the settlement does not move forward, and we should know that in the very near future, Mr. Chairman, what will happen is there is going to be a contracting officer's decision and the contracting officer, Admiral Manganaro, and the figure he will give to Newport News is going to be very different from the negotiated evaluation that we are discussing in the settlement and the Navy's interest would be highly prejudiced at this time by any disclosure of that other figure. In other words, a contracting officer's figure, as Mr. Kaufman very well knows, is a very different thing.

Senator PROXMIRE. You have already given it to the contractor?

Mr. HIDALGO. Sir, for purposes of negotiation, totally private negotiation, and I don't believe Mr. Diesel would violate that either.

Senator PROXMIRE. The only conclusion I can come to is the reason you don't disclose it is if the public knew what this board of experts, Admiral Manganaro's board's recommendation was, then the public would have an expectation of where you should settle it and your settlement might be far, far greater than what the experts say.

Mr. HIDALGO. The answer is "No," it will be very close to the figure that will come out in the evaluation by Admiral Manganaro.

Senator PROXMIRE. You are both extraordinary men and very, very persuasive, but you have not given me a single argument as to why the public and Congress should not have this when the contractor already has it, therefore the only thing I can conclude from that kind of response is you think it would be embarrassing to let the public know what the experts have recommended the settlement with Newport News will be.

Secretary CLAYTOR. The public will know and the committee will know and it will be made public when the termination of the very delicate negotiation is finished. This is one factor in a series of items going into this thing, some of which are unsettled. It may be changed as we go back and forth on this. I feel this would be a very unfortunate thing to do if we are going to try to conduct decent proper negotiations, but you will have the figure by the time it becomes operative.

Mr. HIDALGO. Mr. Chairman, may I try once more?

Let me give you a specific example. Admiral Manganaro was seeking to negotiate a settlement on two of these ships that are involved in the



claims. He gave Newport News a figure for a negotiated settlement which I should not disclose at this time. That figure was turned down by Newport News, rejected. Then Admiral Manganaro came out with a contracting officer's decision that I can disclose to you for \$3 million.

That was appealed by Newport News' Tenneco to the Board of Contract Appeals, where it sits today.

Now, you have to take my word that that \$3 million was only a fraction of the figure that Admiral Manganaro proposed as a negotiated settlement, so take my word for it, we would greatly prejudice the Navy's interest if I spoke of these figures with you—greatly prejudice it.

Senator PROXMIRE. Well, that is a negotiation, but we want the figures that were disclosed. The Electric Boat's and Litton's settlements are based on those shipbuilders absorbing large losses. Do you expect the Newport News settlement to result in an overall loss or profit to Newport News in the Navy's shipbuilding contracts involved?

Mr. HIDALGO. Sir, I don't quite know exactly where that might work out, thinking of the figures that we are discussing right now. I would like to submit that to you at a later time. It certainly is not going to involve anything like the losses we have in the other situations. That much is absolutely clear.

Senator PROXMIRE. Do you think they will make a profit after the settlement?

Mr. HIDALGO. I don't know where we are going to wind up, so I can't tell you that. I don't know exactly the details. Since we are not utilizing Public Law 85-804 with the exceptions I mentioned to you earlier, there has been no financial analysis of the books of Tenneco and Newport News, which we did in tremendous detail with General Dynamics and with Litton.

So, here, whether there is a profit or loss is not figuring into our negotiations.

Senator PROXMIRE. Mr. Secretary, is it not true that your use of Public Law 85-804 in this case is conditional upon the existence of a state of national emergency and, if your answer is "yes," will you please indicate which national emergency you are citing?

Secretary CLAYTOR. The only national emergency we have is basically an emergency in the Navy shipbuilding problem.

Senator PROXMIRE. Let me read section 5 of that law.

This Act will be effective only during a national emergency declared by the Congress or the President and 6 months after the termination thereof or such earlier time which Congress may designate.

Secretary CLAYTOR. I would like our general counsel to answer that because this is something I am not acquainted with. This is Navy General Counsel Togo West, who has been advising me on all of those matters.

Senator PROXMIRE. Would counsel like to come up to the table?

Mr. WEST. Yes, sir. I am General Counsel Togo West of the Navy Department. It is my understanding that it is not predicated on the existence of a national emergency. The Secretary exercised Public Law 85-804 authority in this case. To give you chapter and verse, I will have to supply that after studying it.

Senator PROXMIRE. I hope you do, because section 5 of that law is clear: "This act will be effective only during a national emergency declared by Congress \* \* \*."

Mr. WEST. The question came up and we analyzed it and I will just have to provide that to you, sir.

Senator PROXMIRE. Because under the National Emergency Act of September 14, 1976, the Congress terminated all of the national emergencies, but provided a 2-year grace period and that 2-year period expires on September 14, 1978—next week—and Public Law 85-804 provides a 6-months' extension following termination.

Do you agree with that?

Mr. WEST. I just don't know until I have had a chance to provide you with the results of our review, as I said before. I can say to you that the question was raised.

Senator PROXMIRE. I know you are a very able man and have testified before the committee in the past and you have been very responsive, but I am distressed that you come before us with an appeal, or a proposal, to the Congress that we use a law—and the law, as it clearly states says you have to have a national emergency written into the law, as the staff man is showing you, and you say you have not checked that out.

Mr. WEST. No. I say the question was raised several months ago in my office.

Senator PROXMIRE. Why can't you tell me now?

Mr. WEST. Because I don't have my materials on it and I will provide it to you later. That is the most I can say. It wouldn't be appropriate for me to give you an answer that I am not prepared to give you.

Senator PROXMIRE. Can you tell me now whether the emergency clause in section 5 of that law, which I referred to—doesn't that mean that any future use of Public Law 85-804 cannot be demonstrated without a new presidential declaration of a national emergency?

Mr. WEST. If you want my professional opinion, you will have to give me a chance to prepare for it.

Senator PROXMIRE. Let me ask you a last question that I have on this issue because I think it is of significance and you can answer for the record.

Public Law 85-804, if it is meant to be used only in certain kinds of dire emergencies and there is a technical state of national emergency at the moment, are you not stretching your justification to act on a reasonable interpretation? After all, there is no national emergency at the present time, in a practical sense, and you are taking extraordinary action on that assumption and on weak grounds. This was for national emergency use in only emergency circumstances and I am sure you will agree there is no emergency at the present time, therefore you are using a minor legal loophole to bail out these contracts.

Can you answer that?

Mr. WEST. I will. You understand when the whole national emergency appeal went forward, a number of agencies went through their records to identify authorities that were key to that national emergency, because there were a number of them, and the provision to continue that authority was made. That is what I would have to go back and refresh myself on. But, otherwise, what you are saying, Senator, is that a great number of powers that are identified in this act that are keyed to the existence of a national emergency would have disappeared.

The executive branch was not caught unaware by that and we made provision for it.

Senator PROXMIRE. All right, Secretary Claytor, I have a memo of July 28, 1978, of Admiral Rickover, which presents facts that raise a serious question as to whether General Dynamics deliberately bought into the contract for the second flight of 11 SSN-688 submarines.

He suggests that the contractor was already in financial trouble with the first 688 contract and knew it could not build the second flight for the low price in its contract. Have you investigated the possibility of a buy-in for this contract?

Secretary CLAYTOR. We did look into it. I think Mr. Hidalgo had the most to do with it.

Mr. HIDALGO. Sir, we have seen no evidence of that. What we had in the second flight, in those second 11 ships—well, there were 4 and then 7 on an option—it was their—well, they based their figures still on the 637 experience to a great extent.

The Navy certainly didn't feel the figures were unrealistic at the time. We are going back to 1973, as you know, Mr. Chairman. All of the evidence, and right behind me is Commander DeMayo, who knows this situation in great detail.

My answer to you is no. Mistaken by hindsight as those figures of man-hours needed to build those ships may have been, it was not a matter of buy-in at that time. I am sure you know what the Navy really contemplated that there would be two bids. Remember Newport News had been the design agent and had built the lead ship and it was the first time Electric Boat had been a follow-on and had not done the design. So there are any number of factors that are very much in detail spelled out in the Secretary Claytor's "Memorandum of Decision," which I am sure your staff thoroughly combed and I know we gave it to you.

They don't suggest to me anything other than by hindsight there was a serious chain of errors that led to the results we are all aware of.

Senator PROXMIRE. Let me read three paragraphs beginning with paragraph (a) on page 5 in the Rickover memo:

At the time of negotiations for the second flight, Newport News alleged that Electric Boat was already in financial trouble on the first flight, and that Electric Boat people knew they could not build the second flight submarines at their low prices. Electric Boat, however, represented that it could build the ships for the bid amount. Because the Electric Boat offer was much lower, the Navy negotiators could not justify award to Newport News.

(b) In the intervening years rumors have emanated from Electric Boat personnel that, in addition to the losses resulting from poor management at Electric Boat, a large part of the loss occurred because General Dynamics management ordered Electric Boat management to make significant cuts in their bid estimates for both the first and second flight submarines.

(c) Four years after award of the second flight contract and during Mr. Gordon MacDonald's tenure as general manager of Electric Boat, I asked him why it had taken General Dynamics so long to recognize that there was a problem at Electric Boat. He said that, in his opinion, General Dynamics did recognize there was a problem at Electric Boat as far back as 1972, a year before the second flight contract was placed, and had sent a man to Electric Boat to investigate. Mr. MacDonald also said that in 1973, he had been sent to conduct a 2-month investigation at the yard. He said he had concluded at that time that the yard was not being run adequately and that the yard needed help.

How do you respond to charges General Dynamics knew it couldn't build the ship for the prices offered and, therefore, the Navy should not be held responsible for its cost overruns?

Secretary CLAYTOR. Let me speak to it. In the first place, the statement that Electric Boat's management or General Dynamic's management ordered them to make significant cuts, as stated in the memo itself is a rumor.

We have no evidence of it one way or the other. Leaving that aside, there is no question but that General Dynamics badly managed the Electric Boat shipyard and that basically is why they have to take a \$359 million loss. The fault of this or the problem here, I think, is a fault of General Dynamics. It is a fault of the situation that nobody had quite foreseen.

It is the fault of the Navy in failing to recognize the substantial differences between the 637's and the 688's. No one is saying that General Dynamics here is blameless. General Dynamics is very much to blame and Litton had management problems in the same way.

Senator PROXMIRE. You are saying General Dynamics is very much to blame and General Dynamics' bad management is very much responsible, but the taxpayer has to pick up the tabs.

Secretary CLAYTOR. No; the taxpayer is getting the submarines for the same price approximately that Newport News is delivering them for after the settlement.

Senator PROXMIRE. \$359 million.

Mr. HIDALGO. Sir, there is another point you yourself raised in your testimony before Senator Stennis, which I think is very vital to this discussion. That is the matter of inflation. There is \$470 million of unreimbursed inflation under the existing contracts with Electric Boat. That is \$470 million because of the then type of escalation clause that we used and that the Navy saw fit to use it at that time and there is no implication here of any criticism.

Senator PROXMIRE. I want to go into that. That inflation question is a very interesting one and I will be asking some questions about it in a minute.

First, I understand that the office in the Naval Sea Systems Command, which is directly responsible for the SSN-688 class construction program, has issued a point paper identifying numerous inaccuracies and misrepresentations contained in your memorandum of decision to settle the General Dynamics claims using Public Law 85-804.

Did you not have knowledgeable people familiar with the details of the SSN-688 construction program and its background check the memorandum prior to release for the purpose of ensuring its accuracy?

Mr. HIDALGO. That was checked out and checked out by Commander De Mayo, who is on my staff doing this and who was working with the people, and the memorandum of decision was reviewed within the Navy before being signed by Mr. Claytor. It was after the memo of decision and I want Commander De Mayo to correct my memory, that two points were raised with regard to what was feared might be inaccuracies.

One was with respect to the time of delivery of the submarines by Electric Boat. Would you speak to that, Commander, please, those two points?

Senator PROXMIRE. Let me ask this question first and then let Commander De Mayo speak to that.

Mr. HIDALGO. Have I answered your question?

Senator PROXMIRE. Let me ask you the followup question on that, and I think then we can get the whole thing more clearly.

I referred to the inaccuracies and misrepresentations contained in the memorandum of decision to settle the General Dynamics claims. The statements are as follows:

The Navy elected to develop an alternate design capability for submarines after exclusive use of EB design talent for almost 20 years.

Electric Boat had been the submarine design agent for all nuclear submarines from the early 1950's until the SSN-668 program came along in 1970.

Newport News was designated design agent for the SSN-688, whereas EB had served in this capacity for all previous nuclear submarines.

And the fourth one was:

This changed with the SSN-688 because EB suddenly was just a builder rather than a designer-builder. It is true that the Navy instituted controls in an attempt to make the Newport News/EB interface work. However, there can be no question that there were serious problems associated with this new arrangement.

Now, those are the statements. Here is the comment on the inaccuracies on the point paper:

The Navy has not used EB exclusively for the design of nuclear submarines nor was the role of followup shipbuilder new to EB. Mare Island Naval Shipyard has performed as a nuclear submarine designer as has Portsmouth Naval Shipyard, which designed the SSN-593 class in which specific case EB was a followup shipbuilder.

Regarding the Newport News design agent interface communications with EB—

Mr. HIDALGO. Could we comment on those as we go along?  
Senator PROXMIRE [continuing]. Let me complete this:

It is a matter of record that open and direct communications were established at the outset of the SSN-688 program. These communications which included NAVSEA, EB and Newport News (designer and builder) included bidders' questions, mockup visits, Liaison Action Requests (LAR), Design Agent Shipbuilder Conferences and complete availability to EB of all design agent prepared data. In addition, EB had their own on-site representatives at the design agent's plant on a full-time basis.

Further, EB as a submarine design agent and follow builder on SSN-593 class, was completely familiar with design yard-follow yard relationship and how to work under it.

Do you agree or disagree with those comments?

Mr. HIDALGO. I would like to make an additional comment and have him amplify on my comment. The reference in the memo of decision was that, as among private shipbuilders, this was the first time Electric Boat had not been the design agent. It is true that a naval shipyard was in the case of the *Thresher*, the design agent, but we did not have any comparison here in mind between naval shipyards and a private shipyard, so that we felt this was not an inaccuracy in the memorandum of decision.

Insofar as the interface between Newport News and Electric Boat is concerned, I don't think there is any doubt about it. Newport News had its problems also, without allocating any blame anywhere.

Would you care to amplify on that, Commander De Mayo?

Commander DE MAYO. I think the point is that the Mare Island experience was on one submarine, the *Halibut*, which was a special submarine to carry the Regulus missile and in the *Thresher* case I think it is important to know that after the tragedy of the *Thresher*

that there was extensive design work on the *Thresher* class, and Electric Boat was the lead design yard for that activity.

Those are two examples where the naval shipyard did do the design work.

Senator PROXMIRE. You admit their statement is inaccurate as it goes as follows:

Electric Boat has been the submarine design agent for all nuclear submarines from the early 1950's until the SSN-688 program came along in the 1970's.

Secretary CLAYTOR. We should have said the only private yard that had been the design agency. I think that was a mistake. It is an immaterial inaccuracy.

Senator PROXMIRE. Well, they have had experience as a followup yard.

Now, let's get to the inflation subject. I am reading from page three of the point paper, the section labeled "Misrepresentation" on the subject paper concerning inflation escalation.

It says:

Given the above factors, the protection against inflation afforded by the two SSN-688 contracts proved inadequate under conditions of schedule slippages and during the double-digit era of 1974-75.

What is your response to that?

Mr. HIDALGO. Basic to this whole subject is an understanding of this fact, a simple but very important fact, even in the case of Government-caused delay, and you know there was a prior claim by Electric Boat of \$232 million, which, as you know, we settled for \$97 million and, correct me, Commander, the Navy acknowledged a Government-caused delay of roughly 12 months or 1 year. You move that whole schedule of performance forward 1 year, but you don't change the escalation curve, at all.

The escalation remains the way it was preordained in the original contract by the hands of fate, for which neither you nor I or anyone else is responsible. We got into this terrible double-digit inflation in 1974-75 when materials costs went up 24 percent versus a normal 5 to 7 percent, and labor costs went up over 10 versus 4 to 6 percent, but the escalation remained as ordained in the original contract even though it was delay for which the original contractor was not responsible. No contract should be written that way.

Senator PROXMIRE. Who is responsible for delay in the present claim, this \$125 million?

Mr. HIDALGO. The Navy recognizes in that strict evaluation that was made by the Navy Claims Settlement Board, I believe that involves another 6 months of delay, doesn't it?

Commander DE MAYO. Yes, sir.

Mr. HIDALGO. You have a total of 12 months plus 6 months. The Navy itself recognized that, yet the escalation curve did not move one inch.

Senator PROXMIRE. Well, my point remains the same. Inflation in the present claim is completely included in the \$125 million proposal. Whatever is over that they can take into account inefficiency and incompetence, cost overruns, on which you testified repeatedly this morning, of the contracts. I want to stress what I am quoting from is again not something that some staff member here prepared, but

from the Office of the Naval Sea Systems Command, which is directly responsible for the SSN-688 class construction program. It is their point paper, your own point paper, the Navy series, your own expert, Secretary Claytor, your people, and this is what they say is inaccurate.

Mr. HIDALGO. I have said to you, sir, and Mr. Claytor has, in very clear terms, when you talk of \$125 million, with all of the respect it deserves, and it was recognized by me in 10 months of the negotiations, it is not what this situation as a whole was worth and it cannot be thought of in that context. I mentioned to you that the unreimbursed inflation to Electric Boat under these existing contracts was \$470 million. Let me tell you in Litton it was \$750 million.

Senator PROXMIRE. Now, Mr. Secretary, you say in your prepared statement that the costs of the 688 ships built by General Dynamics average \$15 million more for each ship than the costs of those built by Newport News. But Admiral Rickover says in his August 14, 1978, memo that the first five ships built at General Dynamics are costing \$50 million more each than the first five of the 688's at Newport News, all 10 of which are either delivered or over 85 percent complete.

Admiral Bryan also testified in May that General Dynamics' costs were \$50 million more for each of the first five ships than Newport News' costs. Do you dispute those figures?

Secretary CLAYTOR. They are both right and we have a detailed analysis of this problem. The problem is, "Are we comparing ships that are being built in the same time frame?"

When we compare ships built in the same time frame, as I made clear in my statement—

Senator PROXMIRE. Then you agree with the \$50 million?

Secretary CLAYTOR. Yes. If we compare the first five ships of Newport News with ships from General Dynamics built much later, obviously they are very different, \$50 million or whatever the figure given on the comparison stated, we are all right. But I would like to present to you, sir, the analysis of the comparisons of costs that we made in answer to a question.

Senator PROXMIRE. The admiral's testimony was they were \$50 million more in real terms taking into account fully the inflation element?

Secretary CLAYTOR. The inflation element, not the time of delivery element.

Senator PROXMIRE. That is our understanding and we will document it, inflation including the time element.

Secretary CLAYTOR. That is not correct.

Mr. HIDALGO. Mr. Chairman, I assume your staff has carefully read the response to your question No. 8 and it would be unfair of me to take your time, that very question you are raising now is answered there in three pages and it points out all aspects.

Senator PROXMIRE. You read your response as well as reading Admiral Rickover's?

Mr. HIDALGO. Sir, our response to your question about the comparative cost of the submarines of Electric Boat and Newport News is answered in the greatest details in three alternative situations in reply to your question No. 8, which Mr. Claytor forwarded to you in his letter of August 22.

What that response to your question shows is if you compare the 18 submarines at Electric Boat with the 13 submarines at Newport News, you get almost an equivalent value of one and the other of cost to the Navy, mind you, because we take off that \$359 million loss that Electric Boat is taking and this is—

Senator PROXMIRE. How about cost of production indicates relative efficiency?

Mr. HIDALGO. The cost of production is higher by \$15 million, you are right—\$15 million, not \$50 million.

Senator PROXMIRE. That's where we differ. You admit they are appointed depending—and both admirals say "\$50 million."

Mr. HIDALGO. They compare only the first five submarines, as the Secretary pointed out to you. We don't think that's anything but a misleading way.

Senator PROXMIRE. We just want to complete this. Our experience has been if you want a notion of how much something costs, you don't take the first 10 or 20 percent reduction, but you have to go all the way through.

Mr. HIDALGO. No; these are ships well along in construction and have been delivered or being delivered and will be delivered in the same time frame. If you do that, the net cost to the Navy after the huge loss Electric Boat is taking is a comparative cost.

Senator PROXMIRE. You agree on the five, these are \$50 million more?

Mr. HIDALGO. That seems to be approximately right on the first five.

Senator PROXMIRE. You have stated that lateness of SSN-668 class design data furnished by the Government "had to have its greatest impact on Electric Boat and was a major cause of the cost overrun." Yet Newport News used essentially the same design data in building SSN-688 class submarines. Why then is it costing about \$50 million more per SSN-668 class submarine constructed at Electric Boat than for the identical ship built at Newport News during the same time frame?

Secretary CLAYTOR. I think we already answered that. Part of the problem is we are comparing, or we are not making adequate comparisons and I stand on that.

The second one is, of course, the total cost to Electric Boat in these past times is greater than the cost to Newport News because Electric Boat's costs were higher and they were less efficient. That is matched by taking their \$359 million loss; when one does that, the cost to the Navy—the cost to the shipbuilder—becomes comparable for the whole list.

Senator PROXMIRE. Let me read this briefly from Admiral Bryan:

We have at Newport News Electric Boat building 688-type submarines. The cost of Electric Boat's are running substantially higher. The shipbuilder costs in completion of the first five submarines by Electric Boat average on the order of \$50 million more for each ship than for their first five ships. The increase in direct labor required to do that is on the first five in the order of 25 percent higher for Electric Boat than Newport News.

Secretary CLAYTOR. Yes, but he is talking total costs, not cost to the Navy after settlement.

Senator PROXMIRE. In my questions to you of July 28, 1978, I inquired whether Coopers & Lybrand found that General Dynamics



can absorb a larger loss than provided by your Public Law 85-804 proposal and still remain viable. You responded by providing me with a copy of the Coopers & Lybrand report, which found that "General Dynamics should be able to sustain even a \$774 million loss and remain solvent if its lenders would agree to either waive or revise certain existing minimum loan covenants."

Why is it "essential to the national defense" to bail out a company which does not require extraordinary relief to continue performance on Government contracts?

Secretary CLAYTOR. For the reasons I have already given, the Government's interest in clearing the deck, in putting this thing on a workable basis for the future, the acceptance of that enormous loss, which makes the submarines comparable in cost to those made by the competitor, and the fact that if we didn't do this, we are going to not only face the 8- to 10-year litigation, but might very well pay a great deal more in the end. Also, we would pay almost as much or more in interim payments under prospective court orders. All of those I think add up to make it very much in the Government's interest to go through with this.

Senator PROXMIRE. Is it your testimony Litton would go bankrupt if the Government did not pay the \$80 million for bailing out?

Secretary CLAYTOR. No.

Mr. HIDALGO. The \$200 million fixed loss that Litton took, plus the manufacturing process development cost of \$133 million, that they also lost, but which the Navy refused to recognize, has caused a severe financial impact on Litton, I have no doubt about it, and they are the first to say so.

Senator PROXMIRE. Again, I go back to objective criteria that I think we have, and that is what the great capital market in this country thinks of the stock of these two companies and thought of it after the settlement was made and after the apparent sacrifice you say they have taken.

Let me read, though, and ask your comment on a statement in your prepared statement, one sentence:

The \$2.688 billion estimate to compete is realistic and has been reviewed by a nationally recognized outside accounting firm retained by the Navy, Coopers & Lybrand, as well as by the independent auditors of General Dynamics, Arthur Andersen & Co."

You say \$2.688 billion estimate is realistic and it has been reviewed and so forth. Therefore, they will lose that amount. Let me quote from what Coopers & Lybrand said, the great reservations and qualifications they have with respect to that. They recognize after all being accounts, can be pretty good on what happened in the past and tell you what losses have been, but when it comes to estimating future costs, that is different.

They said:

Several of the underlying assumptions employed by General Dynamics in projecting costs at completion have been optimistic in light of recent experience on the 688 contracts and the history of Electric Boat Division. Potential for cost growth appears to exist in the projection with direct labor hours required to complete the contracts while changing order rates have abated in recent months.

"General Dynamics' learning curve projections, which anticipate improvement in work force appear to be optimistic. The anticipated improved productivity has not been realized.

It is our feeling the projects are optimistic and maybe very optimistic and, again, citing costs, you can leave it to people who read tea leaves and crystal balls, but not anything that a competent accountant would tell you to do.

Mr. HIDALGO. This is not given as a hard-and-fast figure, but a most realistic and best figure we could come up with. He had a number of objective analyses of this. It is in the right ball park, is about all we can say.

Senator PROXMIRE. We don't know if it is or not. We have been wrong over and over again in estimating how much things will cost in defense, particularly with the Navy ships.

Secretary CLAYTOR. If it goes more than \$100 million above that figure, that will be entirely on Electric Boat, that is for sure.

Senator PROXMIRE. Well, then, they will come in again and we will go through the whole procedure once more. They have found out how it works.

Secretary CLAYTOR. No, we won't.

Mr. HIDALGO. This is more than tea leaves. I get very uneasy because this \$2.668 billion figure was crucial to the negotiations. The most that has been said relates to feared overoptimism with regard to productivity. The latest reports I have, and I keep in touch closely with the people at Electric Boat for one reason or another, is that they are running ahead of schedule on their first flight of ships so their time schedules are promising.

Very deliberately the settlement agreement was made flexible so we wouldn't have to come up here and bother you again. Let me say that GAO, which testified, as you know, in both House and Senate, the most they say is that it might run another \$100 million precisely the \$100 million provided for in the settlement agreement and yet we hadn't done anything with GAO at that time.

Senator PROXMIRE. As far as GAO goes, I like it. They are not forecasters and they can't foresee it. People have been wrong in elections.

Mr. HIDALGO. Mr. Chairman, DCAA checked it out. They did it, an auditor came in on August 1 precisely and found that the costs to date, that they were totally consistent with the \$2.668 billion figure and GAO says it may be optimistic or it may run \$100 million.

Admiral Bryan also thinks there may be optimism. There are still 63.2 million hours to go in construction of the ships, and that may be a couple of weeks outdated. Admiral Bryan says it might go another 5 million man-hours. That might be another 5 million man-hours, but none of that takes you above the \$100 million mark which we agreed with them we will share on a 50-50 basis.

So the elements of caution are built into the settlement agreement and based on what we consider is a realistic figure.

Senator PROXMIRE. Mr. Secretary, I read from your own accountants, the ones you selected to do this job before. Now let me cite Litton, which is Lloyd & Haskell themselves. They say Litton's projected or forecasted dates that represent management's estimates of future events, not theirs, they are based on assumptions which are not susceptible of verification. Accordingly we don't express any conclusions with respect to achievability of results of operations projected by Litton.

Moreover, the forecasting of financial data is, by its very nature, imprecise and predicated upon assumptions and tenets which are often incorrect.

If they went to blame you and put the blame on me, we have been fooled again and again and again on these costs on the defense projects and again and again you have been low.

Mr. HIDALGO. You are making life hard for me. This \$4,726 million figure, that is a much harder figure than the Electric Boat figure for this very clear reason.

First of all, it is based on hard DCAA analysis. GAO didn't say it was an optimistic figure and please bear in mind, we are trying to learn the truth here, I assume, today. Please bear in mind they only have, not even 2 more years to go to finish construction of these ships and they have over 90 percent of their materials on hand and have a labor contract that will go through September of 1980, and we feel that is a very hard prediction and yet in that case we have a \$100 million overrun provision which the parties would share 50-50.

I don't think there is any reason for pessimism on your part that that figure could prove faulty or wrong.

Senator PROXMIRE. This is exactly the same, Litton's are. They have the same kind of concern about trying to project what the costs are going to be. They said the auditor's procedures in examining Litton's statement are designed to test the historical amount and do not project Litton's practices, et cetera. The forecasts preclude its commenting on accuracy or achievability of this data. Even if permitted by the profession as guidelines, they could not comment on Litton's projections while this opinion on Litton's financial statement is qualified, so this statement you make that the \$2.668 billion estimate is realistic and has been reviewed by a national accounting firm retained by the Navy, that statement is false on its face. These people deny that they can say whether \$2.668 billion is realistic or not realistic.

Secretary CLAYTOR. I didn't say that. I have dealt with accountants' statements for a long time and I know the kind of language they use. They had reviewed it. They did review it, they did not certify this was a correct figure and no accountant or anyone else will ever certify an estimated future figure is a correct figure.

I didn't say they did. I said they reviewed it and they did review it and certified to all expenses up to date and in the case of Litton that is most of it, because most of it has already been incurred.

The payments to Litton up to date are what, 90 percent?

Mr. HIDALGO. Yes, out of the \$4,726 million more than \$4 billion has been spent.

Senator PROXMIRE. Would anyone believe an estimate by the Defense Department or contractors that the cost of a weapons system, after the experience we have had here, would believe that the Green Bay Packers are going to win the Sugar Bowl. Maybe it will come true, but I believe it is a long, long shot.

Secretary CLAYTOR. OK.

Senator PROXMIRE. Just one more question and I apologize for keeping you so long, you have been extremely accommodating and responsive.

Mr. Hidalgo said in the earlier statement, and you both can respond, "This mission was to settle the claims in the way that would solve the underlying cause of the claim."

Secretary Claytor makes similar assertions in his prepared statement today. But the underlying cause of the claim is cost overruns. Cost overruns are caused, at least in part, by contractor inefficiency and low productivity. Is there anything in the settlement that can assure shipbuilders will be more efficient and there will be higher productivity?

Secretary CLAYTOR. I think one very important thing will result and that is unless they are, they will be out of business. I think they recognize that because even a large company cannot go along these kinds of losses.

Senator PROXMIRE. Normally, I think that is a very good rule. That is why we have Mr. West and that is why we have been so successful, but they don't apply here. If they get into trouble, you come along with a national emergency declaration and give them a few hundred million dollars.

Secretary CLAYTOR. The \$300 million they picked up is a blow in the eye to any company, regardless of its size, and had Electric Boat been an independent company and not a division of General Dynamics, which has a relatively small portion of the overall picture, they would have been completely broke, without any question, wiped out.

This is not, or I think that is the principal reason.

Now, the other thing is I was not just talking about contractor inefficiency because a great many factors went into these losses and into these claims other than contractor inefficiency. I think we have cleared the decks of a lot of that.

Senator, could I suggest, if I may have just a moment, that Mr. West now has the answer about the question of a national emergency.

Mr. WEST. I would like to confirm your staff's interpretation.

Senator PROXMIRE. I don't want to be delayed too long because we will have a call to the floor and I won't be able to get my resolution of disapproval, so you fellows have an incentive for keeping me here.

Mr. WEST. The National Emergency Act of 1976 did indeed repeal the emergency. Its date is September 14, 1976, and it is effective 2 years from that date, September 14, 1978. It exempts from its provisions, first of all, actions all underway by the time of the effective date.

Second, it specifically exempts from section 502 of the act actions on appeal of Public Law 85-804. The authority still exists and continues to exist.

Senator PROXMIRE. I don't question it, but taking advantage of a legal loophole. Everybody here knows there is no national emergency and Congress has declared no national emergency, but you are taking advantage of this to bail these two out.

Mr. WEST. No. That is not part of the interpretation of what Congress did in 1976, which was to eliminate from the requirements of the act thereby a national emergency.

Now the standard is that the event will facilitate the national defense.

Secretary CLAYTOR. The national emergency was eliminated by an amendment in 1976, was it not?

Mr. WEST. Yes.

Secretary CLAYTOR. It is no longer a requirement of the national emergency quite apart from the fact it had been extended 2 years.

Senator PROXMIRE. Thank you, gentlemen, very much for your responses. We appreciate it very much.

[Whereupon, at 12:25 p.m., the subcommittee adjourned, subject to the call of the Chair.]

# ECONOMICS OF DEFENSE PROCUREMENT: SHIPBUILDING CLAIMS

WEDNESDAY, JANUARY 3, 1979

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 10:04 a.m., in room 5302, Dirksen Senate Office Building, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senator Proxmire.

Also present: Richard F. Kaufman, general counsel; Katie MacArthur, press assistant; and Mark Borchelt, administrative assistant.

## OPENING STATEMENT OF SENATOR PROXMIRE, CHAIRMAN

Senator PROXMIRE. The subcommittee will come to order.

Welcome, gentlemen. We are glad to have you with us this morning.

Today's hearing is one of a continuing series initiated several years ago in order to better understand the way the Navy buys its ships.

I must say at the outset that the Navy's guided missile frigate program, the FFG, is one of the saddest cases of Government procurement, to come to my attention. The cost overruns alone indicate that the Navy has not benefited from its recent shipbuilding experiences.

The FFG was estimated to cost \$65 million each in 1973. Today the estimate is \$195 million. You can account for about one-third of that increase because of inflation, but that is all. The 50-ship program was estimated at \$3.2 billion. The current estimate for 52 ships, almost the same number, is over \$10 billion.

Two technical problems stand out among many that have been identified. First, this is the first ship that I have come across that the Navy knows will have to be recalled for structural changes after they are built, delivered and sent to sea. In other words, they build them, send them to sea, and then they have to come back and change them.

The sterns of the first 26 ships will have to be redesigned and rebuilt in order to accommodate the LAMPS-Mk III, a larger helicopter than was originally intended for the ship.

Second, the ships as presently designed have a serious survivability problem. They are vulnerable to low-level threats and "cheap kills" because of the lack of armor. What that means is that a fragment from a shell or a lucky shot from a rifle could conceivably put the ship out of action because vital items of equipment are exposed.

Now, if this is an example of the new Navy, maybe we ought to get back to the way things were done in World War II.

The evidence points to serious Navy mismanagement. Unless the Navy is able to come up with satisfactory answers to the questions raised thus far, I am afraid it will have to take full responsibility for what appears to be another shipbuilding disaster.

I should add that at this time the facts do not suggest that the shipbuilders are to blame for the problems that have been identified so far. Except for the lead ship, schedules have not been delayed and construction costs seem to be under control. Of course, if problems do occur in the shipyards and large claims are filed, there will be additional cost overruns.

In the meantime, we need to find out why the costs of the program have risen so high and the causes of the difficulties experienced to date.

Our leadoff witness is Jerome Stolarow, Director of the Procurement and Systems Acquisition Division of the General Accounting Office. He will be followed by representatives of Bath Iron Works Corp.

Mr. Stolarow, you may proceed as you wish with your statement and then we will have some questions.

**STATEMENT OF JEROME H. STOLAROW, DIRECTOR, PROCUREMENT AND SYSTEMS ACQUISITION DIVISION, GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY FELIX E. ASBY, ASSISTANT DIRECTOR; AND JOHN D'ESOP, TEAM LEADER**

Mr. STOLAROW. Thank you, Mr. Chairman.

We are pleased to be here this morning to talk about Navy shipbuilding programs and particularly the FFG-7 program.

I have a prepared statement for the record, but I would like to summarize it myself rather than read the whole statement.

We have been concerned for some time, as have many of the congressional committees, about the problems in Navy ship acquisition, the rising costs, the claims and the performance of Navy ships, and GAO put quite a bit of effort into looking at various aspects of the Navy ship acquisition program.

One of the programs that we have been following very closely has been the FFG-7 program, formerly called the patrol frigate program. The FFG-7 program is currently estimated at a 52-ship program with a total cost of about \$10 billion just for the ships, or close to \$200 million a ship.

There are currently 26 ships for the U.S. Navy under contract with three different yards—

Senator PROXMIRE. May I interrupt for a minute?

When you say "just for the ships," that does not include the cost of the helicopters?

Mr. STOLAROW. It does not include the cost of the helicopters and some other weapons that may go on the ship.

Senator PROXMIRE. Have you any general estimate as to how much that might add to the \$10 billion?

MR. STOLAROW. I don't have a figure with me. We can supply that for the record.

Senator PROXMIRE. All right.

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

*Estimated program costs not included in September 30, 1978, FFG-7 class frigate Selected Acquisition Report (SAR)*

	<i>In millions of dollars</i>
[All estimates are in fiscal year 1979 dollars]	
Helicopters (assuming 2 LAMPS-Mk III helicopters per frigate)-----	1,310
Cost to backfit the following items onto the first 26 U.S. frigates: LAMPS-Mk III electronics, TACTAS, helicopter hauldown system, LINK 11, Single Audio, fin stabilizers, and CIWS—Navy estimate.-----	588
<b>Total estimated program costs not included in Sept. 30, 1978, FFG-7 class frigate SAR.-----</b>	<b>1,898</b>

NOTE: The SAR also does not include the estimated costs of Harpoon and Standard missiles (\$576,000 per unit and \$151,900 per unit, respectively), MK-46 torpedoes (\$100,000 per unit), 76-mm shells, or 20-mm bullets.

MR. STOLAROW. As I said, there are 26 ships under contract for the United States and 3 for the Royal Australian Navy.

Senator PROXMIRE. \$18 million a helicopter, I understand, and there are 2 helicopters per ship, and 52 ships. Is that \$1.8 billion?

Well, I will figure it out. Go ahead.

MR. STOLAROW. There are substantial additional costs for the program over and above what the ships cost.

Senator PROXMIRE. It is \$1.8 billion in addition, which would come close to \$12 billion altogether?

MR. STOLAROW. That sounds reasonable.

Our major area of concern right now with this program is the stern redesign. It has come to our attention that because of safety of flight considerations after the Navy decided to change the helicopter that would go onboard, the Navy decided that the LAMPS-MK III helicopter, which is bigger than the previous version of the LAMPS helicopter that was going on the ship, would have to land from dead astern to give the proper safety and clearance, particularly in rough seas. Previously, it was intended that the helicopters would land from an angle off the stern of the ship.

Because of this and because of some equipment that has to go on to handle the helicopter and a couple of other things, the stern will have to be redesigned.

Now, this was determined after the initial design of the ship, but our concern at this point in time is that the Navy did not intend to modify or incorporate the new design into the first 26 ships under contract during construction, but, rather, would incorporate the new stern design into ships for contracts that would be awarded in 1979 and 1980 and thereafter.

The first 26 ships would then have to come back into the yard at some future time, be out of commission for from 6 to 12 months and incur a cost, a preliminary estimate, of \$8 million a ship to have the stern modified.

As we look at the program right now, and attached to my prepared statement is a construction schedule for the first 26 ships—



Senator PROXMIRE. That \$8 million a ship is included in the overall ship cost estimate?

Mr. STOLAROW. It is not at the time.

Senator PROXMIRE. So that would be an additional amount. That \$8 million per ship is whose estimate, the Navy's?

Mr. STOLAROW. Yes.

Senator PROXMIRE. Do you accept that as realistic?

Mr. STOLAROW. I don't think so. I think it will run higher.

Senator PROXMIRE. How much higher?

Mr. STOLAROW. It is hard to say at this time. It is a very rough estimate, as they classify it, and when they do that, I think it will be higher.

Senator PROXMIRE. Go ahead.

Mr. STOLAROW. In any event, of the 26 U.S. ships under contracts which the Navy did not intend to incorporate the new stern design on during construction, the keel has not even been laid yet for 15 of them. The keel was just laid in December 1978, for three of them and so they are just at a very early stage or stages of construction.

Now, it is our feeling that a substantial amount of money could be saved if the Navy had gone back to the yards and said, "We want the new design at least on those 18 ships," and I don't know how many more under construction where it would still be appropriate without running into lots of problems in the yards to have made that change.

Just last week, we wrote a letter to the Secretary of Defense calling this to his attention and recommending that the Navy be instructed to adopt the new stern design on every ship already under contract during construction where it is possible.

Senator PROXMIRE. I have a copy of this letter here. I am releasing that copy to the press this morning. That was a letter written in December.

Mr. STOLAROW. Yes, sir. I think it was dated the 29th. I have submitted a copy for the record.

So, in any event, we would hope that the Navy would take a good, hard look at this program right now and make those changes as early as possible.

As we talked to the Navy, they had never gone back to the yards and to the contractors to find out if it would be feasible to make this change for those ships already under contract, what it would cost—in other words, to make an analysis of what is the most economical way to make these changes for the ships that were under contract already.

So at this point in time we don't know what the Navy's plans will be for those ships, but as I say, we have written to the Secretary of Defense and asked him to look into the matter and take whatever action is appropriate.

That is the main concern we have with that particular program right now. There are other aspects of this program and of Navy shipbuilding in general that we have been concerned with. This particular program, the FFG-7 program, was characterized initially as a design-to-cost program. That is, the Navy, recognizing the high cost of building and acquiring ships today, and realizing that they needed a fairly large number of ships like this, made an attempt right from the beginning to hold the costs down on this particular program.

When you do that, naturally if you are going to keep costs down and use what is referred to as a design-to-cost, there are tradeoffs that have to be made as far as effectiveness of the ships.

Early in this program we talked to the Navy, and I personally discussed it with Admiral Zumwalt in his office, that we felt some of the steps that were being taken because of budget constraints, because of attempts to keep the costs down, were leading to a ship that might not be effective in performing its mission. Of course, this is a military judgment, and we in GAO can't really quarrel with them too much, but we did raise several issues with them. One had to do with using the current version of the sonar that is on the ship that is much less effective than other available sonars.

Another problem that you alluded to, and it is not only limited to the FFG-7 program, is the fact that Navy ships designed and built since World War II generally are vulnerable to what is characterized by the Navy as "cheap kills." That is, fragmentation, shock damage—things like that—and we are not talking about a direct hit from a major weapon or major piece of munitions.

Today's ships are highly sophisticated, particularly with electronics and fire control systems. The old ships we had in World War II, if they took a hit, much of the mission could be accomplished manually, but today we rely on electronics and radar and other sophisticated systems to perform the mission of a ship. These systems have to be protected as much as possible from other than a direct hit, so that if they suffer damage, they are not really put out of commission. In other words, the ship would still be afloat, but it couldn't fire or it couldn't perform its mission if some of these electronics systems are put out of commission.

The Navy itself, back at least 5 years ago, began to recognize that its ships were highly vulnerable and susceptible to so-called "cheap kills." Several study groups were set up to look into the problem, but without getting into classified details, very little has been done up to now to resolve this problem. We have issued a report, a draft report, to the Department of Defense bringing up these concerns and making some recommendations to the Secretary of Defense.

We have not yet received a reply from the Department of Defense on our report, but we have pointed out many of the problems, and again it is not ours—these are from Navy reports and Navy officials who are very much concerned about the vulnerability of the Navy ships. But, again, this is somewhat exasperated in the FFG program by the fact that the ship was designed as a relatively inexpensive ship, and I use the term "relative," and in an attempt to keep the cost down.

This is a laudable effort, because we have all criticized the services for highly expensive systems, but there has to be some determination made when you go too far and the effectiveness of the weapons system is severely impacted by attempts to keep the cost down, and we think that is what has happened in this program.

In conclusion, to summarize, we in GAO are doing a major study of the whole ship acquisition process. We have started to go back on several programs to the initial design, the initial cost estimates, and follow the programs through to see if we can come up with some constructive recommendations for changes in the way the Navy acquires ships, to avoid the kinds of problems, the claims and the controversies, the overruns that have occurred in the past and have been of such concern to the Congress and to the Department of Defense itself.

We hope to have that study completed sometime this spring and, again, I would hope we would have some innovative ideas that we could suggest that would preclude some of these problems from occurring in the future.

With that, I will conclude my remarks and I will be open to any questions.

[The prepared statement of Mr. Stolarow, together with the attachments referred to, follows:]

PREPARED STATEMENT OF JEROME H. STOLAROW

*The Navy's FFG-7 class frigate shipbuilding program, and other ship program issues*

Mr. Chairman and members of the Committee, we are pleased to appear here today to discuss some key aspects of our work on the Navy's shipbuilding program—in particular, the FFG-7 class frigate program.

We have been greatly concerned over the serious difficulties that the Navy's shipbuilding program has been experiencing over the past several years. As you know, the program has been characterized by significant cost growth, schedule delays, shipbuilding claims, and deficiencies in the performance of naval ships. This situation has raised considerable concern about the effectiveness of the program and has resulted in numerous congressional inquiries into the reasons and possible solutions. The lack of significant progress in recent years has affected the Navy's ability to get approval and funding for its recommended ship program and has resulted in concern over the shrinking number of active combat ships.

For the past several years we have been examining the cost, schedule, and effectiveness of several Navy ship acquisitions, including the FFG-7 class. In addition, we have recently studied the survivability of naval surface combatants, and are currently doing a review of issues related to the Navy's ship acquisition process.

I would like to highlight several matters dealing with the Navy's shipbuilding program. These include:

Issues related to the cost, performance and effectiveness of the FFG-7;

The survivability of present and planned naval ships; and

Our ongoing review of issues which relate to the Navy's ship acquisition process.

*FFG-7*

The FFG-7 Guided Missile Frigate (Oliver Hazard Perry Class) is to become the backbone of the Navy's sea control fleet by the mid-1980s. The frigates are required to protect sea lines of communication, and to insure the reinforcement and resupply of U.S. deployed forces and overseas allies. The ships will be specifically employed in areas of moderate threat to protect convoys, underway replenishment groups, and amphibious forces in areas against attacks by enemy aircraft, submarines, and surface ships.

The ship's weapons will consist of the surface-to-air STANDARD missile, the antisurface ship HARPOON missile, the 76 millimeter gun, MK-46 torpedoes, two antisubmarine warfare helicopters and the PHALANX close-in weapons system to defend against antiship missiles.

Two hundred and two million dollars was authorized by the Congress for the lead ship. Detailed design of the FFG-7, then known as the Patrol Frigate, began in May 1973. The \$94.4 million lead-ship construction contract was awarded in October 1973 to Bath Iron Works Corp., Bath, Maine. Construction began in March 1975, and the lead ship was delivered in November 1977.

In February 1976, the Navy awarded contracts to Bath Iron Works and to two Todd Shipyard Corporation yards—one in Los Angeles and the other in Seattle—for construction of 11 follow-on ships. Additional contracts have since been awarded to these yards, with a total of 29 FFG-7 class frigates now under contract, including three for the Royal Australian Navy.

The 1973 estimate for a total program of 50 ships was \$3.2 billion, with an average unit cost of \$64.8 million. The Department of Defense estimated at September 30, 1978, that the cost of a 52-ship FFG-7 program would be \$10.1 billion, an average cost per ship of \$194 million.

Two primary factors causing this increase are: the addition of equipment that was not included in the original cost estimate such as a towed sonar, fin stabilizers and electronics equipment; and much higher than anticipated ship-building costs.

#### *Stern redesign*

We have recently learned that the FFG-7 frigates are undergoing an extensive stern redesign to enable the ship to accommodate the LAMPS-MK III helicopter, its haul-down system, and the towed sonar system. The Navy plans to incorporate this modified stern into the fiscal year 1979-1980 ship design packages. It does not plan, however, to incorporate the modification directly into the 26 U.S. FFG-7 class frigates already under contract, but intends to retrofit the changes into the ships at some point after delivery.

The LAMPS-MK III helicopter, its haul-down system, and the towed sonar system were not developed when the FFG-7 was designed in the early 1970s. However, weight and space were reserved on board for a haul-down system, and space was reserved for the towed sonar. By early 1977, as the design for the sonar and the helicopter haul-down system began to firm up, it became apparent that the compartments and bulkheads in the entire stern section below deck would have to be rearranged to install these systems on the ship.

A change in the landing pattern of the LAMPS-MK III helicopter also affected the stern design. For safety reasons, the helicopter will be landing straight-in from the stern, rather than obliquely as was the case before. All equipment positioned on the ship's fantail will have to be removed because it could interfere with the helicopter's landing approach. To accommodate this equipment, the FFG-7 class frigate's transom will be tilted and a "step"—extending rearward 6 to 10 feet and recessed 25 inches below the main deck level—will be added to the stern.

The Navy knew, at least as early as September 1976, that the stern would require modification. Despite this the Navy did not analyze the economic feasibility of incorporating the modified stern into all, or some, of the first 26 U.S. FFG-7 frigates during their construction. Nor did the Navy contact the shipyards to determine whether the stern modification could be incorporated into all, or some, of the first 26 U.S. follow ships during construction, and what cost and schedule effect this action might have on the ships involved.

The Navy has tentative plans to begin retrofitting the first 26 U.S. FFG-7 class frigates in 1985. A Navy best guess estimate, developed in early 1978, indicates that it will cost at least \$7.2 million per ship to retrofit the modified stern into the ships. Navy representatives told us that such a retrofit could result in each ship being drydocked 6 to 12 months or longer.

We recently wrote to the Secretary of Defense expressing our belief that the Navy's decision to defer incorporating the modified stern until the ships covered by fiscal year 1979-1980 contracts ships was made without considering all relevant factors. As of October 1, 1978, fabrication on 12 of the first 26 U.S. ships had not yet begun. The Navy estimates that construction on these ships—from start of fabrication to delivery—will average 2½ years to 3½ years each, with the final FFG scheduled for delivery in January 1983. Since the Navy is scheduled to have detailed design drawings for the stern modification by June 30, 1979, we questioned why the Navy has not planned to incorporate this modification into at least some of these ships during their construction.

We recommended that the Secretary of Defense determine whether the modified stern can be cost effectively incorporated into at least some of the FFG-7 class frigates under contract during their construction rather than retrofitted after construction.

There are some additional aspects of the FFG-7 program about which we have concerns.

#### *Limitations affecting performance*

From the inception of the FFG-7 program, the Navy has recognized a need for a large number of these frigates to replace World War II destroyers retiring from the fleet. In order to meet this numerical requirement, stringent design controls were placed on the size and cost of the FFG-7. Keeping down size and cost naturally led to some sacrifices in operational effectiveness, most of which appear to be good management decisions. There are several areas where cost constraints may unduly effect operational effectiveness—but this remains to be seen.

Four matters that merit discussion today are (1) the selection of the short-range AN/SQS-56 hull-mounted sonar, (2) the decision to include only minimal space, weight, and stability margins for modernizing the ship, (3) operation and maintenance of the ship, and (4) ship survivability.

*Short-range, Hull-mounted Sonar—AN/SQS-56*

In preliminary design, the SQQ-23 sonar was selected as the FFG-7 hull-mounted sonar. The Navy, however, later decided to replace it with the AN/SQS-56 sonar.

The decision to change to the 56 sonar was based on cost, space, and personnel considerations and the decision to add the capability to handle a second LAMPS helicopter. The 56 is a less costly, less effective system, which has since encountered serious developmental problems. The Navy has been upgrading the system to overcome its effectiveness and suitability deficiencies.

The primary threat to the FFG-7 and its escorted forces will continue to be Soviet submarines armed with both torpedoes and missiles. Overall protection will, therefore, depend largely on the effectiveness of the FFG-7 frigate's anti-submarine warfare systems. Since the 56 sonar is only a short-range active sonar, the ship depends on the development of towed sonar for longer-range submarine detections. Until the towed sonar is approved for service use, the FFG-7 frigates will have to rely on the short-range 56 sonar.

The improved 56 sonar recently underwent tests at sea. The test results indicated that it is operationally effective against its primary target and thus has been provisionally approved for service use pending determination of its reliability. However, since the system did not meet all of its operational performance criteria, a waiver was issued so production could begin. The Office of the Secretary of Defense will review the results of the follow-on test and evaluation in the fall of 1979 to confirm the operational suitability of the 56.

The Navy believes that the FFG-7 with the improved 56 sonar and two LAMPS MK-1 helicopters, operating in conjunction with other ASW forces, will be an effective ASW platform. We have serious reservations about that position. With towed sonar and a LAMPS-MK III, the FFG-7 will be considerably more effective in prosecuting submarines at longer ranges.

*Modernization potential*

Modernization potential is the ability of a warship to accept new equipment to avoid obsolescence. The long life of warships (25 or more years) and relatively short life of systems installed on the ships (7 to 10 years) makes modernization potential important. Over its lifetime, a warship will usually have much of its original equipment replaced by new, more capable systems.

From the outset of the program, space, weight, and stability margins for growth in the FFG-7 have been minimized. The low margins are linked to the Navy's determination to restrain the size and cost of the ship. As a result, the FFG-7, unlike most new warships, is unable to accommodate any new equipment beyond what is planned, unless compensating removals are made. The two areas of particular concern are the reductions in (1) the service life weight margin, and (2) the future growth margin.

The service life weight margin allows for weight increases occurring during the life of the ship. Normally, the margin for a ship this size would be about 150 tons. The margin in the FFG-7, however, is only 50 tons, or 100 tons less than normal.

The future growth weight margin is established to allow for unknown, but anticipated future modifications and new equipment approved by the Chief of Naval Operations. This margin is intended to make new ships more adaptable to changing requirements, the increasing threat, and changes in technology. In the FFG-7, there is no margin for unplanned future ship characteristic changes which require additional space or increases in the ship's weight.

In addition to the tight weight margins, opportunities for future growth are even further constrained by very limited space on the ship. These space limitations could make some necessary future improvements impractical if compensating equipment removals cannot be made. This, in turn, could affect the capability of the ship to perform its mission against an increasing enemy threat.

We believe these limited opportunities for future ship modifications are a serious matter because major modernizations are almost always required in order to

maintain an effective ship. Historically these modernizations have usually required space, weight, and stability reservations. The absence of weight and space margins for fitting new equipment beyond those already planned means added risk that needed mid-life modernizations to keep the ships abreast of an increasing threat throughout their life will prove impractical.

The retirement of the ocean escorts of the Claude Jones, Courtney, and Dealy classes from the active fleet when they were only 15 to 20 years old are examples of ships with limited growth potential. Not only did the Navy fail to get a full measure of active service from these ships, but while active they contributed less in terms of effectiveness than less cost-constrained designs would have.

#### *Operation and maintenance of the ship*

The FFG-7 is designed under a logistics support concept that emphasizes reduced shipboard manning. The ship will have a crew of about 70 fewer personnel than the comparable size frigate currently in operation. The lower manning is attained partly through (1) the use of gas turbine propulsion versus steam power used on previous combatants, and (2) the centralization and automation of the control of weaponry and other equipment. Some naval representatives believe, however, that the manning level of 185 to 191 may not be adequate to meet all of the ship's needs. If this is found to be true and accommodations beyond 191 are required, this will mean that another extensive modification will have to be made to the ship.

#### *Ship Survivability*

As discussed earlier, the FFG-7 class frigate was designed under strict cost and weight constraints. This resulted in a minimum emphasis on providing the ship with protection for carrying out its missions after a "low" level enemy attack, (such as aircraft rockets and 3-inch and 5-inch surface ship projectiles, rather than cruise missiles and torpedoes). According to a 1975 Navy assessment of the ship's survivability protection, the ship (and other U.S. ships) are quite vulnerable to low level enemy threats. Survivability improvements for the FFG-7 class are being evaluated, and corrective actions are planned. However, opportunities for improvement are limited because the ship is small, there are cost and weight constraints as well as state-of-the-art limitations, and the payoff of all possible changes may not be commensurate with the costs.

#### SURFACE SHIP SURVIVABILITY

On the subject of survivability, we have found in a recent review that the Navy's surface combatant ships are vulnerable to the so-called "cheap kill." A cheap kill occurs when a damaged system on a ship prevents the ship from completing its mission even though there is little or no physical damage to the ship's structure. Although the ship continues to float, it serves no useful purpose. Some of the most common causes of cheap kills include: (1) small metal fragments from near-misses or proximity-fused weapons which destroy exposed, inadequately armored vital equipment and (2) shock from an underwater explosion which damages improperly designed vital equipment on warships. In addition to these cheap kills, we found that protection is also inadequate against chemical and biological agents.

This inability to survive the cheap kill is both unacceptable and avoidable. The Navy recognized the need for improved protection as early as January 1975 when it established a survivability improvement program. This program could have resulted in substantial improvements, but delays in implementing it have limited its effectiveness. Recent congressional interest and complaints from several Navy officials, including the Commander in Chief of the Atlantic Fleet, have apparently increased the attention devoted to this issue. A higher priority has been demonstrated recently by the development of two long-range improvement plans still under consideration by the Navy. These plans call for an expansion of research and development efforts and improvements to 46 existing ships.

We believe that improvements in both areas are needed, but we are concerned about the adequacy of the efforts planned. Many ships are not scheduled to receive any improvements, and those that will may still be lacking adequate protection. Additionally, the Navy has not made any policy changes to establish survivability as a priority issue or to require that it be considered throughout the life cycle of ships and shipboard equipment.

## REVIEW OF ISSUES WHICH RELATE TO THE SHIP ACQUISITION PROCESS

We are currently doing a review of issues which relate to the Navy's ship acquisition process.

The objectives of this assignment are to:

(1) Examine the Navy's management of change for three ship programs (the FFG-7, DD-963, and SSN-688) to determine—

The nature of changes that have occurred;

Their cost and schedule impact;

The reasons behind the changes; and

Actions that can be taken to minimize the amount of change allowed to occur after ship construction begins.

(2) Examine the potential for new and innovative shipbuilding or ship design techniques.

(3) Assess the Navy's July 1978 "Naval Ship Procurement Process Study."

(4) Examine Navy and contractor cost estimates.

(5) Assess the reasons for cost growth on shipbuilding programs.

In summary, Mr. Chairman, we recognize that the acquisition of Navy ships is an extremely complicated and expensive process today. The advent of highly sophisticated electronics and weapons systems makes today's ships much more difficult to design and build than those of the World War II era. Sophistication and inflation together contribute to high costs.

We, as auditors, certainly don't claim to have all the answers to the Navy's ship acquisition problems—but we do think there is much room for innovation and enlightened management. We will continue to put a great deal of emphasis on this subject with a view toward making constructive recommendations to the Department of Defense and the Congress.

Mr. Chairman, this concludes my prepared statement. We will be happy to answer any questions you have at this time.

## FFG-7 GUIDED MISSILE FRIGATE PROGRAM CONSTRUCTION SCHEDULE, OCT. 1, 1978

Ship	Start fabrication	Lay keel	Launch	Delivery
FFG-7	Jan. 31, 1975*	June 12, 1975*	Sept. 25, 1976*	Nov. 30, 1977.*
FFG-8	Dec. 12, 1976*	Jan. 16, 1978*	Nov. 4, 1978	Dec. 9, 1979
FFG-9	Jan. 28, 1977*	July 13, 1977*	July 29, 1978*	Feb. 29, 1980
FFG-10	Feb. 11, 1977*	Apr. 29, 1977*	Mar. 1, 1978*	Mar. 31, 1980
FFG-11	Jan. 23, 1977*	July 17, 1978*	Mar. 24, 1979	June 30, 1980
FFG-12	Apr. 29, 1977*	Dec. 14, 1977*	Dec. 16, 1978	July 31, 1980
FFG-13	Mar. 6, 1977*	Dec. 4, 1978	July 21, 1979	Oct. 31, 1980
FFG-14	July 20, 1977*	Aug. 7, 1978*	May 5, 1979	Nov. 29, 1980
FFG-15	Mar. 13, 1977*	Apr. 2, 1979	Nov. 3, 1979	Feb. 28, 1981
FFG-16	Mar. 30, 1977*	July 30, 1979	Feb. 16, 1980	May 31, 1981
FFG-17 (RAN)	May 17, 1977*	July 29, 1977*	June 21, 1978*	Aug. 30, 1980
FFG-18 (RAN)	Oct. 14, 1977*	Mar. 1, 1978*	Jan. 2, 1979	Dec. 31, 1980
FFG-19	Jan. 6, 1978*	Dec. 27, 1978	Dec. 15, 1979	Apr. 30, 1981
FFG-20	Feb. 17, 1978*	June 21, 1978*	Mar. 30, 1979	Do.
FFG-21	Mar. 11, 1979	Nov. 12, 1979	May 31, 1980	Aug. 31, 1981
FFG-22	June 29, 1978*	Dec. 4, 1978	Aug. 31, 1979	Do.
FFG-23	June 2, 1978*	Aug. 8, 1979	May 10, 1980	Sept. 30, 1981
FFG-24	May 29, 1979	Feb. 25, 1980	Sept. 13, 1980	Nov. 30, 1981
FFG-25	June 4, 1979	Dec. 19, 1979	do	Jan. 30, 1982
FFG-26	Oct. 7, 1979	June 9, 1980	Dec. 27, 1980	Feb. 28, 1982
FFG-27	Apr. 12, 1979	May 14, 1980	Jan. 17, 1981	May 31, 1982
FFG-28	Dec. 12, 1978	Apr. 2, 1979	Dec. 28, 1979	Apr. 30, 1982
FFG-29	Jan. 20, 1980	Sept. 22, 1980	Apr. 11, 1981	May 31, 1982
FFG-30	July 16, 1979	Sept. 17, 1980	May 16, 1981	Sept. 30, 1982
FFG-31	June 11, 1979	Sept. 4, 1979	May 30, 1980	Aug. 31, 1982
FFG-32	May 4, 1980	Jan. 5, 1981	July 25, 1981	Do.
FFG-33	Dec. 17, 1979	Jan. 21, 1981	Sept. 12, 1981	Jan. 31, 1983
FFG-34	Aug. 17, 1980	Apr. 20, 1981	Nov. 7, 1981	Nov. 30, 1982
FFG-35 (RAN)	Sept. 12, 1979	Jan. 2, 1980	Sept. 26, 1980	Dec. 31, 1982

Note: All dates reflect current estimates for accomplishment except those noted by an asterisk (\*), which are actual dates. Start fabrication dates for FFG class ships indicate completion of layout, cutting, and shaping of first 100 tons of hull structure.

UNITED STATES GENERAL ACCOUNTING OFFICE,  
Washington, D.C., December 29, 1978.

HON. HAROLD BROWN,  
The Secretary of Defense

Attention: Assistant for Audit Reports, ASD (Comptroller).

DEAR MR. SECRETARY: We are currently reviewing the Navy's ship acquisition process for selected programs, including FFG-7 class frigates. Although our review is not yet completed, we are bringing to your attention a matter which we believe requires your immediate consideration. We learned that FFG-7 class frigates are undergoing an extensive stern modification to enable the ship to accommodate the Light Airborne Multi-Purpose System LAMPS-Mk III helicopter; its Recover, Assist, Secure, Traverse (RAST) haul-down system; and the Tactical Towed Array Sonar (TACTAS) system. The Navy plans to incorporate this modified stern into the fiscal year 1979-1980 ship design packages. It does not plan, however, to incorporate the modified stern section into the first 26 FFG-7 class frigates already under contract during construction, but intends to retrofit these ships at some point after delivery. Until this retrofit, the Navy plans to equip these ships with the LAMPS-Mk I helicopters—an aircraft that has marginal performance and effectiveness characteristics.

We are concerned with the antisubmarine warfare capability of the first 26 U.S. frigates until such time as they can accommodate LAMPS-Mk III, RAST, and TACTAS. We therefore recommend that your office determine why the modified stern should not be incorporated into all, or some, of the FFG-7 class frigates already under contract during construction, rather than retrofitting these ships after delivery.

#### BACKGROUND

The FFG-7 class frigate is to become the backbone of the Navy's sea control fleet by the mid-1980s. Detailed design for this ship began in May 1973, and Bath Iron Works Corporation, Bath, Maine, was awarded the lead ship contract on October 30, 1973. In February 1976, the Navy awarded fixed-price incentive contracts to Bath Iron Works and to two Todd Shipyard Corporation yards—one in the Los Angeles area and the other in Seattle—for construction of the first 11 follow-on ships. Additional contracts have since been awarded to these yards, with a total of 29 FFG-7 class frigates now under contract, including 3 for the Royal Australian Navy.

The LAMPS-Mk III helicopter system and the TACTAS system—which are critical components of the ship's combat system—were not yet developed when the FFG-7 class frigate was originally designed. Weight and space were reserved on board for a helicopter haul-down system, and space was reserved for TACTAS. These systems were to be installed when developed. By early 1977, as the design for TACTAS and the helicopter haul-down system began to "firm-up," it became apparent that the original compartmental configuration on board would have to be modified to enable incorporation of these systems.

The Chief of Naval Operations, in March 1978, approved a change in the LAMPS-Mk III's landing pattern. For safety reasons, the helicopter will now be landing straight-in from the stern, rather than obliquely as was the case before. All equipment positioned on the ship's fantail will have to be removed to prevent interference with the helicopter's new landing approach.

The Navy, in April 1978, tasked Gibbs & Cox, the FFG-7 class design agent, to develop detailed design drawings for the overall FFG-7 class stern modification. This modification includes tilting the transom and adding a "step" to the frigate's stern. This "step" will extend 6 to 10 feet rearward and be dropped 25 inches below the main deck level. The equipment removed from the frigate's fantail will be repositioned on this "step"—safely below landing deck level. The modification also includes rearranging the compartments, bulkheads, duct work and cables in the entire stern section below deck to integrate the RAST and TACTAS systems into the ship.

Gibbs & Cox plans to complete these drawings by June 30, 1979.

#### THE NAVY DID NOT PERFORM ANY ECONOMIC ANALYSES

The Navy was aware, at least as early as September 1976, that incorporating RAST and TACTAS into FFG-7 class frigates would require some amount of stern modification. In fact, the Naval Ship Engineering Center issued a Towed



Array System Feasibility Study, dated December 20, 1973, which indicated that incorporating a towed array system into FFG-7 class frigates could require some stern rearrangement. Beginning in January 1977, Gibbs & Cox performed feasibility studies and developed blueprints showing that the frigate's stern would have to be modified to enable the ship to accommodate RAST and TACTAS.

Despite being aware that the frigate's stern would have to be modified to incorporate RAST and TACTAS, the Navy did not at any time conduct analyses which investigated the economic feasibility of incorporating the modified stern into all, or some, of the first 26 U.S. FFG-7 class frigates during their construction. Navy officials told GAO that cost-benefit analyses were not performed because incorporating the modified stern into the first 26 ships was not a viable alternative. They stated that RAST and TACTAS had only been developed enough within the last year to enable preparation of any type of design drawings. Moreover, LAMPS-Mk III and TACTAS equipment would not be available for any of the first 26 U.S. ships even if their sterns were modified. This is because 25 of these ships are scheduled for delivery between January 1980 and January 1983 (the first was delivered November 1977), while the equipment is scheduled for a mid-1980s introduction into the fleet.

#### OTHER INFORMATION WAS NOT CONSIDERED

The Navy did not contact the shipyards for the FFG-7 class frigate program to determine (1) whether they could incorporate, or develop plans to incorporate the modified stern into all, or some, of the first 26 U.S. ships during their construction and (2) what cost and schedule effect this incorporation might have had on the ships involved and on the program-as a whole.

#### RETROFITTING THE FIRST 26 U.S. FFGS

The Navy has tentative plans to begin retrofitting the first 26 U.S. FFG-7 class frigates in 1985, and estimated in early 1978 that this retrofit will cost approximately \$7.2 million per ship (in fiscal year 1979 dollars). This figure represents the labor and material cost to tear out and rearrange the stern section and does not include the LAMPS-Mk III/RAST/TACTAS equipment costs. Navy representatives emphasized that this estimate is a "best guess" estimate based on very limited information, and may not accurately reflect the actual retrofit cost.

Navy representatives also told us that retrofitting the first 26 U.S. FFG-7 class frigates could result in each ship being drydocked 6 to 12 months or longer—thus reducing each ship's operational availability.

#### CONCLUSION

We believe that the Navy's decision to defer incorporating the modified stern until fiscal year 1979-1980 ships and not to modify any of the first 26 U.S. ships during construction was made without adequately considering all relevant factors.

As of October 1, 1978, fabrication on 12 of the first 26 U.S. ships had not yet begun. The Navy estimates that construction on these ships—from start of fabrication to delivery—will average 2½ to 3½ years each, with the final FFG-7 class frigate scheduled for delivery in January 1983. Since the Navy had been studying the possible need for a stern modification since 1973 and is scheduled to have detailed design drawings for this modification by June 30, 1979, we question why the Navy has not planned to incorporate this modification into at least some of these ships during construction.

Failure to incorporate the modified stern into at least some of the first 26 U.S. FFG-7 class frigates becomes even more significant if the Navy decides not to retrofit any of these ships at all.

#### RECOMMENDATION

We therefore recommend that your office determine why the modified stern should not be incorporated into all, or some, of the FFGs already under contract during construction, rather than retrofitting these ships after delivery.

We would appreciate being informed of the actions you plan to take in response to our recommendation. We are sending copies of this letter to the Director, Office of Management and Budget; the Chairmen, Senate and House Committees on Appropriations and Armed Services; the Chairmen, Senate Committee on

Governmental Affairs and House Committee on Governmental Operations; and the Secretary of the Navy.

As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations within the agency's first request for appropriations made more than 60 days after the date of the report.

Sincerely yours,

J. H. STOLAROW,  
*Director.*

Senator PROXMIRE. Thank you, Mr. Stolarow, for a frank and clear exposition of the problem as you see it.

I would like to address, first, the stern redesign issue. As I said, I am releasing your letter to Secretary Brown, and I would like to ask some questions about it in your testimony.

In March 1978, your office issued a detailed report on the FFG, but there is no mention of the stern redesign problem. When did you first learn of this matter, and to your knowledge was Congress aware of it prior to your learning about it?

Mr. STOLAROW. We just found out about that stern redesign this fall.

Senator PROXMIRE. When—this fall? Can you pinpoint it more closely?

Mr. STOLAROW. About September 1978.

Senator PROXMIRE. About September?

Mr. STOLAROW. Of 1978, yes, sir.

Senator PROXMIRE. You mentioned three factors that necessitated the stern redesign, the LAMPS helicopter—I mean the LAMPS-Mk III helicopter, the haul-down system and the sonar system. The Navy was aware all three systems had to be accommodated on the stern. Why does it have to be redesigned?

Mr. STOLAROW. My understanding is that one of the primary reasons is the change in the landing pattern of the helicopter. It has to come in from dead astern, and there were some obstructions on the original stern design that have to be moved out of the way. Furthermore, the compartments and bulkheads in the stern section, below deck, must be rearranged to enable the ship to accommodate the towed sonar and the haul-down system.

Senator PROXMIRE. So that it consists, then, of the landing pattern of the LAMPS-Mk III, its large size and the heavier weight, that is an element, too?

Mr. STOLAROW. Yes; heavier weight.

Senator PROXMIRE. Why is a larger helicopter needed?

Mr. STOLAROW. The original LAMPS helicopter did not have the range and the carrying capacity that the Navy determined was necessary to perform the ASW mission. Several years ago the Navy decided that because of the nature of the threat from Soviet ships and submarines, that the LAMPS helicopter would have to have a range of about 100 miles from the ship. Previously they were talking about 35 miles, a 35-mile range, and this necessitated going to a different helicopter.

Senator PROXMIRE. You say the Navy knew as early as September 1976, that the stern would require modification?

Mr. STOLAROW. 1976, yes, sir.

Senator PROXMIRE. So they knew 2 years before you found that out. How do you know that?

Mr. STOLAROW. We have had discussions with the Navy and the project office on that and have gone back into the records and have found indications that that is about the date when they knew about it.

Senator PROXMIRE. You also say that by early 1977 it became apparent that the areas below deck in the stern would have to be rearranged. When did the Navy make its decision to redesign the stern?

Mr. STOLAROW. March 1978, is when a decision was made.

Senator PROXMIRE. Explain what is involved in redesigning the stern, whether this is a minor modification or if extensive teardown and reconstruction is involved.

Mr. STOLAROW. I would like to let Mr. Asby answer that.

Mr. ASBY. I am Felix Asby, Assistant Director, GAO.

The stern redesign package encompasses several elements. Initially, the stern was designed to accommodate the Mark-I helicopter, landing at basically a 45-degree angle to the line of the ship. When the Navy determined that they were going to have to have a longer range helicopter, this meant having a heavier helicopter. This necessitated ultimately a change in the landing pattern of the helicopter. It also necessitated the incorporation of a recovery and secure system to haul down the helicopter, keep it in place when it lands.

It is a light ship, it tosses and turns, and in high seas it creates a hazard not only in landing, but in securing and moving the helicopters from the pad to the hangars that accommodate them. This necessitated incorporating a design change so that they could build in this recovery system, which would consist of various machinery to secure the helicopter to the pad and then secure it and move it to the hangars.

Finally, the third major reason was the incorporation of the towed sonar. This was still in the development process when the ship was designed. During the development of the towed sonar, it became necessary to incorporate changes in the basic design to facilitate and incorporate the installation of the towed sonar into the stern.

All three of these factors—or all three of these modifications—are part of the stern redesign package.

Senator PROXMIRE. You say once the Navy determined they need a range of 100 miles instead of 35 miles away from the ship with the helicopter, then it followed that they would have to have a different helicopter, a bigger helicopter, and therefore redesigned the ship to accommodate that?

Mr. STOLAROW. That is right.

Senator PROXMIRE. Should the Navy have known that before they finished the design of this ship, in your judgment?

Mr. STOLAROW. I think that you could make a good case for it, but it is really hard to say exactly at what point in time. The original helicopter system, the LAMPS-Mk I, was always known to be deficient in performance and was always considered to be an interim system.

Now, just what size helicopter they would go to and what size stern was needed, it is a little fuzzy when you say the Navy should have known that.

Senator PROXMIRE. That is a little second-guessing on our part, but when you get to the next point, that of taking timely steps once it became aware of the need of a different helicopter, there you say the Navy knew as early as September of 1976, and the incredible thing is the plan to build the first 26 ships and then recall them so the stern can be reconstructed. In your opinion, is this needlessly increasing costs and interrupting ship operations?

Mr. STOLAROW. I don't think there is any doubt about it.

Senator PROXMIRE. Can you give any estimate or indication of what the additional cost to the taxpayers may be because of that?

Mr. STOLAROW. It would at least have to be in the area of \$8 to \$10 million per ship, which is the cost for the modification that the Navy is talking about.

Senator PROXMIRE. You say at least, because that \$8 to \$10 million is likely to be conservative?

Mr. STOLAROW. But I think of more concern is that these ships are urgently needed by the Navy, according to the Navy, and each will be out of commission 6 to 12 months to accomplish the modification.

Senator PROXMIRE. Whereas if they accomplish the redesign and reconstruction before the ships were commissioned, they would save a substantial portion of the 6 months to 12 months?

Mr. STOLAROW. Exactly.

Senator PROXMIRE. Why would they do that? Is this a way of avoiding changes and, therefore, claims and, therefore, getting in trouble with the Congress because they have overruns?

Mr. STOLAROW. I really think so.

Senator PROXMIRE. So the way they avoid the overrun in this case is to have the ship delivered the way it was originally, then bring it in for redesign, and rather than considering that as part of the original purchase price, it is considered as reconstruction of a ship?

Mr. STOLAROW. I think that is a fair way to characterize it.

Senator PROXMIRE. Now, two different commands within the Navy are primarily involved in the program, the Ships Systems Command, responsible for buying the ships, and the Air Systems Command, which is responsible for buying the helicopter.

In your opinion, are these two commands properly coordinated on this ship?

Mr. STOLAROW. With the way that this whole situation has developed, I think it would be questionable as to whether they are coordinated. As I say, I think they have known for a number of years that they would have to go to a different helicopter, and to a larger helicopter. The UTAAS helicopter, which is an Army helicopter being adapted for this mission, was the prime candidate for this mission at least 5 years ago.

Senator PROXMIRE. Does that mean that the helicopter people didn't talk to the shipbuilding people, people responsible for the ship construction, and therefore lack of communication was a principal reason involved here?

Mr. STOLAROW. I really can't from our personal knowledge say how much talking they did do, but certainly something went wrong.

Senator PROXMIRE. You say the Navy didn't ask the shipbuilders whether the stern modification could be incorporated into the first 26

ships during construction, and what the effects would be on costs and schedules. How do you know this?

Mr. STOLAROW. We asked them, and the Navy told us that they had not gone back to the yards to find out which was the most economical way to do it.

Senator PROXMIRE. Mr. Harvie, let me ask you a question. Did the Navy ask you, and you, as I understand it, are vice president of marketing and former FFG-7 program manager—is that correct?

Mr. HARVIE. That is correct.

Senator PROXMIRE. You would be in a position, I take it, to know what kind of communication there was between the Navy and the shipbuilders, since you had to occupy that position.

Did the Navy ask the shipbuilders whether the stern modification could be incorporated in the first 26 ships during construction and what the effects would be on costs and schedules?

Mr. HARVIE. No; they didn't ask me that.

Senator PROXMIRE. Would you have known if they had asked the shipbuilders about that? Would you be in a position to know?

Mr. HARVIE. Yes; I would have known.

Senator PROXMIRE. Mr. Stolarow, on what do you base your view that the stern modification could result in the ship being drydocked for from 6 to 12 months?

Mr. STOLAROW. That is the Navy's estimate, and also the ship design agent confirms that as a reasonable period to do the modification.

Senator PROXMIRE. Let me get back to an issue you raised earlier. You called the Navy estimate that the stern modification will cost \$7.2 million a ship a "best guess." I am told costs could be \$13 million a ship. How did the Navy make its estimates, and do you think the costs would go to \$13 million a ship?

Mr. STOLAROW. This is a very rough estimate. As far as we know, there has been no formal cost estimating procedure. It is their first, very preliminary, off-the-top-of-the-head estimate, and that is the only thing available right now.

Senator PROXMIRE. Let me ask the last part of that question again then. Do you think the costs could go to \$13 million a ship?

Mr. STOLAROW. That is pure conjecture, but certainly, yes, based on what we know of how good these very preliminary estimates are and the fact that most program offices tend to be optimistic about costs like this. It is highly possible that it could be substantially more.

Senator PROXMIRE. Is it correct to assume that if costs rise above \$7.2 million per ship that the SAR estimate will have to be revised upward, the SAR estimate of \$195 million?

Mr. STOLAROW. It would have to be.

Senator PROXMIRE. Because it is not included in the 195.

What about the cost of the redesigned sterns of the second group of ships? Are those costs included in the SAR?

Mr. STOLAROW. Yes.

Senator PROXMIRE. Will the stern modification add weight to the ship, and if so, what are the implications of the weight margin—

Mr. STOLAROW. There won't be that much weight added, but this ship doesn't have that much room for much extra weight. It does not have a lot of room for changes in the future.

Senator PROXMIRE. Can you be a little more precise? How much more weight can the ship carry before it has effects on speed, maneuverability, and so forth?

Mr. STOLAROW. This ship has a growth margin of about 50 tons now, which is about one-third of what is allowed in a Navy shipbuilding program of this type.

Senator PROXMIRE. Right now, is that before the redesign?

Mr. STOLAROW. Before the redesign.

Senator PROXMIRE. How much weight will the redesign add? Is it possible that might exceed 50 tons?

Mr. STOLAROW. We don't think it will exceed the 50 tons.

Senator PROXMIRE. But it puts it in a position of having little flexibility after that?

Mr. STOLAROW. The ship has little flexibility to start with.

Senator PROXMIRE. In your opinion, is it a flaw of design?

Mr. STOLAROW. That is the past history of the past Navy ships, which have a life of 25 years, say, and because of developments, particularly in electronics and weapons systems, the history is that the Navy ship somewhere in midlife needs a complete overhaul and redesign to accommodate new systems, and if it doesn't have weight and growth potential, it would be difficult to do this.

Senator PROXMIRE. This would cut the life of the ship in half.

Mr. STOLAROW. That has happened in one or two previous programs.

Senator PROXMIRE. Let me repeat that. This could cut the life of the ship in half?

Mr. STOLAROW. It could retire it prematurely.

Senator PROXMIRE. Maybe 12 years instead of 25 years?

Mr. STOLAROW. That is right.

Senator PROXMIRE. What are the other programs that that occurred in that you mentioned?

Mr. STOLAROW. I will read from the statement:

The retirement of the ocean escorts of the *Claude Jones*, *Courtney*, and *Dealy* classes from the active fleet when they were only 15 to 20 years old are examples of ships with limited growth potential. Not only did the Navy fail to get a full measure of active service from these ships, but while active they contributed less in terms of effectiveness than less cost-constrained designs would have.

The FFG class ships will have broader capabilities than these escorts, but their limited growth potential cause concern over their value as a long-term investment.

Senator PROXMIRE. Then it is your opinion that the narrow growth-weight margin is a flaw in the design. Who is responsible for that, the Navy, or the design agent?

Mr. STOLAROW. It is the Navy. This ship was designed with a cost restraint. An attempt was made to hold the cost down as much as possible on this ship. The terminology used in years back was "to have a high-low mix." That is, some very sophisticated ships, very capable, and then some less expensive ships that would not be as capable as the more expensive ones. Again, it is a tradeoff.

Senator PROXMIRE. I want to ask about that, because it is a fundamental notion. I think we might get the impression from that statement and the earlier statements you made that it might be counterproductive to try to come in with a low-cost ship, and I am not sure that that is what you intend to say; so let me ask it this way.

The tradeoffs made in pursuit of the design-cost approach used in the FFG, isn't it correct that the main problems in the FFG are the deficient designs that do not take the larger LAMPS-MK III into account, and the weapons and equipments intended for the FFG, and the mismanagement of the program? Wasn't it possible to avoid these problems and control the costs with proper application of the design-cost approach?

It seems to me it may not be fair to the design-cost approach to say that this is what happens when you try to design to a low cost.

Mr. STOLAROW. I think the best way to put it is that design-to-cost is a valid management technique and should be encouraged, but particularly when you are talking about weapons systems, the first consideration has to be the effectiveness of the ship to perform its mission.

Now, if you look at the cost first, and severely degrade the mission effectiveness, then you really are not getting much at all for your money.

Senator PROXMIRE. Here is the problem. I think the Congress, the committees, the Armed Services Committees of the House and Senate and those of us who make decisions here, and perhaps even in the administration, are sold a bill of goods by the Service.

They say you can develop a weapons system for a certain price. We make the commitment. Once we make the commitment and we go ahead and we have a lot of money in the pot, it is all right, go ahead, if it costs 50 percent more, 100 percent more, and so forth.

We go ahead with it. It would seem to me that the answer would be to have a frank, honest, realistic estimate of the cost to begin with. Maybe the cost would be high. Maybe in that event the Defense Department or the Congress will say no. It seems to me that that is the issue, rather than whether the design-to-cost approach is an improper approach.

Mr. STOLAROW. I think you are perfectly right, Senator.

I think one of the keys is honesty and credibility between the weapons designers and the Congress to tell the Congress in essence what an effective system will cost.

Senator PROXMIRE. Now, he mentioned a 1975 Navy study showing the FFG to be vulnerable to low-level enemy threats, low-level being not nuclear weapon, of course, or a torpedo, or something like that, or a direct hit by a large projectile, but a rifle shot that knocks out radar or sonar equipment.

Does this mean the ship is subject to cheap kills? And does this differ from high-level threats?

Mr. STOLAROW. As I mentioned and summarized in my statement, Navy ships today are very sophisticated and depend to a great extent on electronics. The so-called cheap kill, that is, not a direct hit by a major piece of munitions, can effectively put a ship out of commission for accomplishing its mission.

In other words, the ship is still afloat and not in danger of sinking, but it cannot perform its mission as it was intended to do if electronic equipment and other gear is put out of commission.

Senator PROXMIRE. What is the likelihood of that? Is it one of those things that will happen one chance in a hundred, or one chance in fifty,

or could it happen, quite likely, in the event of a normal combat situation?

Mr. STOLAROW. I would have to attribute this to the Navy itself. There are many people at high levels within the Navy who are very much concerned about this problem being a serious problem with the fleet today, and that is where we are getting our information from, from these people who have raised the issue, and from study groups that have looked at it.

We have not, naturally, made any assessment ourselves. We are not capable of it. The Navy is concerned about this issue.

Senator PROXMIRE. You are saying that a ship could be made inoperable by a cheap kill. It wouldn't sink, but it wouldn't be suitable for the mission.

Mr. STOLAROW. That is correct. This is not limited, either, to the FFG-7.

Senator PROXMIRE. Has this happened in the recent past?

Mr. STOLAROW. There were a couple of examples where ships were put out of commission in the Vietnam situation by so-called cheap kills. Most of the details are classified.

Senator PROXMIRE. Your 1978 FFG report discusses the Navy's plan to use Kevlar to increase the ships' capability. I understand Kevlar is a material that covers this and helps to prevent this kind of thing. You are holding it in your hand.

Mr. STOLAROW. This is the kind of material used in a bullet-proof vest.

Senator PROXMIRE. Is that what Dan Pastorini wore when he was passing against the Patriots? [Laughter.]

Mr. STOLAROW. Several layers of this put inside a casing can cut down the fragmentation that would go through the protective surfaces of the ship. The Navy is exploring this. It is relatively expensive to do.

Senator PROXMIRE. They are exploring it. How do they know it will work?

Mr. STOLAROW. This type of material has been used for fragmentation control, bullet-proof vests, and they are running tests on it to see how effective it would be.

Senator PROXMIRE. Does it burn or give off toxic fumes?

Mr. STOLAROW. That is one of the problems. It burns and gives off toxic fumes when it burns. So there is danger in putting it aboard the ship in any great quantity.

Senator PROXMIRE. Is it possible that that might increase rather than reduce the vulnerability?

Mr. STOLAROW. In some ways, yes.

Senator PROXMIRE. If the ship hits something hot, or a flame, it could be worse.

You say opportunities for improvement are limited. Does that mean this material won't solve all the problems?

Mr. STOLAROW. That is correct. If the basic ship design, the placement of equipment and the protection afforded to key pieces of equipment is not built into the original design, then it becomes in many cases prohibitive from a cost standpoint to correct it later on.

Senator PROXMIRE. Could we borrow that piece of Kevlar for the remainder of the hearings?



How much weight will Kevlar add to the ship?

Mr. STOLAROW. Very little. It is not a weight problem.

Senator PROXMIRE. What should the Navy have done, in hindsight, to prevent the survivability problem?

Mr. STOLAROW. In hindsight and looking at some of the concerns raised by Navy officials, I think primarily it is placement of key equipment.

Senator PROXMIRE. Put it below the superstructure?

Mr. STOLAROW. Below the superstructure, putting stores of munitions in places where they are not as susceptible to hits. There are many things that could be done if this is seriously considered during the design of the ship.

Senator PROXMIRE. This piece of Kevlar I have has a hole in it.

Mr. STOLAROW. I understand a bullet was fired through it.

Senator PROXMIRE. What good is it if a bullet goes through it?

Mr. STOLAROW. I think a direct hit from a bullet, and also several layers of that would be used behind an aluminum or thin steel bulkhead.

Senator PROXMIRE. Can you tell me what kind of bullet made this hole? It looks like a 22.

Mr. STOLAROW. I can't.

Senator PROXMIRE. It wasn't a BB gun, anyway. [Laughter.]

Does this problem of preventing the survivability situation, does that represent a weakness in the ship's design? And who is responsible for it, the Navy, or the shipbuilder?

Mr. STOLAROW. The shipbuilder is not responsible in any way, I think. It is a design defect, a failure on the part of the Navy officials to stress this to the design agent when the original designs are made, to set up certain requirements for protecting the vulnerable parts of the ship. The shipbuilder only follows—

Senator PROXMIRE. Can't the design agent change them when there is a design weakness? Shouldn't they have communication?

Mr. STOLAROW. You might say that, but I still think it is primarily the Navy's responsibility to study—they know the threat they are facing, the kinds of weapons they are facing, where the ship is going to operate, and they have to make these determinations and then tell the design agent where certain key pieces of equipment have to be placed.

Senator PROXMIRE. You say the Navy plans to improve survivability on 46 existing ships. Does the problem exist for the entire surface fleet, not only the FFG, but all ships, and how much will the corrective action take?

Mr. STOLAROW. The details of this thing are classified, and I don't think we can discuss it in open session like this, but they do have plans and are making studies.

Senator PROXMIRE. I think it is obvious, without getting into classification, that this would be a problem.

Mr. STOLAROW. That is correct.

Senator PROXMIRE. Can you explain what caused the delays and the cost increases on the FFG ship and whether they were caused by the Navy or the shipbuilder?

There is an 8-month delay, as I understand it, in the delivery of the first ship.

Mr. STOLAROW. There was some indecision and some changes that were being made at the last moment about equipment that would go onboard—an extra generator and some other things—and this caused a delay in the completion of the design.

Senator PROXMIRE. Indecision by the Navy?

Mr. STOLAROW. Partially.

Senator PROXMIRE. So the responsibility was the Navy's?

Mr. STOLAROW. Yes.

Senator PROXMIRE. The 1977 report on the ship says that the data were inadequate to permit you to have accurate cost estimates. Explain this and tell us whether you have been shown data since the 1977 report.

Mr. STOLAROW. Basically, we asked the Navy for their supporting documentation for their cost estimates, and they didn't really have good supporting data that we felt was adequate to support the estimate that was made. We haven't really gone back and looked at that since that point in time.

We have been looking at other aspects of it, but at that point in time we reported to the Congress that the cost estimates did not have adequate support.

Senator PROXMIRE. Does that mean that the official estimates are not correct because they didn't produce adequate data?

Mr. STOLAROW. That remains to be seen. Certainly there wasn't the detailed supporting computations and information available so that you could express any confidence in the estimate at all.

Senator PROXMIRE. Now, the cost estimates are supposed to be reflected in the FFG SAR?

Does the FFG SAR—is it adequate?

Mr. STOLAROW. It does not include all the costs of the FFG-7 program. This is a flaw that we have pointed out with many programs in the past, where other major pieces of equipment are on another SAR.

For example, the helicopter here, those costs are not included in the basic weapons system.

Senator PROXMIRE. What costs are not included?

Mr. STOLAROW. For example, the helicopters are not included. Harpoon weapons which might go on the ship at another time, which are reported on another SAR, are not included in the cost of the ship. It is basically just the ship itself and its inherent pieces of equipment. But the weapons systems that are managed separately and reported on separate SAR's are not shown in the total cost of the ship.

Senator PROXMIRE. I hold in my hand here an article from the Washington Post of December 5. The headline says, "Destroyer Built on Time, Under Cost." I would like the article to appear in the record at this point.

It says that the venerable Bath Iron Works is building a new breed of destroyer on time and at the agreed-upon price.

[The article referred to follows:]

[From the Washington Post, Dec. 5, 1978]

## DESTROYER BUILT ON TIME, UNDER COST

(By George C. Wilson)

BATH, MAINE.—Here on the banks of the Kennebec River, a strange thing is happening in this era of Navy ships being delivered years late and way over the original price tag.

The venerable Bath Iron Works, which started building ships for the Navy in 1890, is building a new breed of destroyer on time and under the agreed-upon price.

And, according to the shipyard's top management, Bath has no intention of filing any claims against the government for extra money—a promise that contrasts with the \$2.7 billion other shipbuilders have demanded the Navy pay them for unexpected costs on their contracts.

Why Bath Iron Works is such a bright spot in an otherwise dark shipbuilding picture—including delays totaling 100 years—is a story of Mainers who like to build ships, of belated Navy reforms and of a company management determined to bite off no more than it can chew.

The end result is a new class of warships—which looks like small destroyers but are called guided missile frigates with the Navy designation FFG—designed to keep the sea lanes open if war should break out.

"The best ship in 20 years," enthused Rear Adm. J. D. Bulkeley after the first of this new class, the Oliver Hazard Perry, went through her sea trials after Bath Iron Works delivered her to the Navy last December.

From a naval strategy standpoint, the Perry class marks a victory for those who argue that the time has come to build smaller, cheaper ships because no single ship—including nuclear-powered giants—can cover two places at once.

From a political standpoint, Bath's performance on these small frigates raises the question whether this yard could have avoided the delays and cost overruns which have plagued Litton's shipyard in Pascagoula, Miss., as Litton built the Navy the Spruance class of destroyers.

The Spruance contract pitted the Maine delegation in Congress against John Stennis (D-Miss.), chairman of the Senate Armed Services Committee, who helped locate the Litton yard in his home state. Litton had no experienced shipbuilding force to compare with Bath's and ran into trouble when it tried to train one.

Although comparative figures are hard to get from the Navy, the Pentagon's fiscal 1979 report on the cost of major weapons shows that each of the new 3,600-ton patrol frigates—including research and everything else was expected to cost \$152 million compared to \$383.5 million for the 7,300-ton DD 963 Spruance destroyer and \$938.6 million for the 9,000-ton DDG-47 Aegis anti-aircraft destroyer. (All figures are fiscal 1978 estimates.)

Here at the shipyard, Navy and company executives talk differently. They focus on how much it will cost the yard to build the bodies of new class of patrol frigates. The Navy has a target price of \$48 million for this construction—not counting the cost of the engines and weapons the government will furnish—and a ceiling price of \$52.6 million.

Under the latest estimates, Bath, after allowing for inflation, will deliver the 11 ships it has contracts to build for the \$48 million target price or less—the first time a shipbuilder has done so well on a surface combatant in almost two decades.

Also, Bath executives insist they will deliver all 11 ships on the average of seven weeks ahead of schedule, saving the Navy between \$20 million and \$30 million.

The first of the new class, the Oliver Hazard Perry, was delivered to the Navy last December. The Perry is 445 feet long, carries two antisubmarine helicopters in hangars on the stern, is armed with missiles and a 76-millimeter gun, can steam at more than 30 knots with two gas-turbine engines turning the single propeller, and is highly automated so a comparatively small crew of 11 officers and 153 enlisted men can operate the ship.

Bath is building the ships in sections so workers can install everything from steel decking to light bulbs in an assembly building rather than struggle to do this in the cramped quarters of the ship after it is launched.

Although other ship yards, including Litton, now build ships in sections, Bath's ability to attract and hold high-quality workers is hard to match elsewhere in the country. The Maine yard has about 10 applicants for every opening and

has only about 12 percent of its 5,000-person work force leave every year, with only about half that percentage quitting.

Robert C. Upham, a 50-year-old foreman at the Bath yard, exemplifies why so many people want to work there and stay.

"I tried California right after high school," recalled Upham in an interview here, because he thought he wanted to get into aviation. "But I got so homesick for Maine out there. I like the four seasons." So he returned to Bath, took a job as an apprentice in the same yard his father was employed and has been building ships here ever since.

"It's been a good steady job," said Upham. "I've never been laid off a minute since I lived here. And it's the best-paying job around."

Capt. Charles L. Mull, the Navy officer overseeing the patrol frigate program from an office at the Bath yard, said in an interview that "we don't have an attitude problem among the workers here. They want to do it right."

Mull added that the Navy itself has instituted a number of reforms to reduce the chances of cost overruns and delays. One such reform was building and testing the lead ship before freezing the design of the others in the class. This meant a delay of almost two years between the commissioning of the first ship, the Oliver Hazard Perry, and the start of the second one. But Navy leaders contend this "fly before you buy" approach is paying off.

Another improvement made in the Perry program was "putting everybody in bed together from the beginning" so that the designs passed muster with the Navy executives who would deploy the ships and the yards that would have to build it, Mull said.

Also, an extraordinary effort was made to test extensively on land the engines, weaponry, electronics and other gear before it was put in the ship, he continued.

John Sullivan, president of Bath Iron Works, in an interview credited the yard's ability to complete 76 percent of the first production ship, designated the FFG 8, on land before launch with saving money and time.

Senator PROXMIRE. The article goes on about "the best ship in 20 years," and so forth.

Now, in the first place, as far as cost is concerned, can you explain the reason for the increase from \$65 million to \$194 million for each FFG in the period 1973 to 1978?

Mr. STOLAROW. Part of it, of course, is inflation. Part of it is—

Senator PROXMIRE. Was I correct? I made the assertion that the inflation was responsible for a third, and I base that on the economic indicators that I consulted last night, showing that the capital costs generally increased by about one-third of this. I don't know any inflation indicator that would come close to a 200-percent increase since 1973.

Mr. STOLAROW. No; not all of that is inflation.

Senator PROXMIRE. Not all of it. How much is?

Mr. STOLAROW. We have not made a detailed review of the SAR costs and the costs of inflation. The SAR shows approximately one-third of that as being due to inflation.

Senator PROXMIRE. Fine. That was my estimate.

Mr. STOLAROW. The other was new and additional equipment which has been added to that ship, towed sonar, a second helicopter, fin stabilizers, and electronics.

Senator PROXMIRE. Well, with new and additional equipment, we are told when we go ahead with a system like this that it is going to cost \$65 million a copy, \$3 million for the whole shooting match, and then we are told later that the whole thing is going to cost \$195. You say two-thirds of this is because of a change in equipment?

Mr. STOLAROW. Also, the shipbuilding costs are higher than originally estimated, partly due to inflation and partly due to underestimating construction costs early in the program.

Senator PROXMIRE. Well, is it your judgment that the ships was improved substantially to account for this enormous increase in cost during this period?

Mr. STOLAROW. In some aspects, yes, it is a more capable ship than was originally intended—in some aspects.

Senator PROXMIRE. Well, would you say that you could account for this threefold increase from 65 to 195, would you say that it is three times the ship?

Mr. STOLAROW. I would like to defer to some Navy official to make that kind of an estimate.

Senator PROXMIRE. Or twice the ship?

At any rate, it isn't the ship the Congress thought it was going to get in the first place when we indicated we would go ahead, for \$3 billion, and they come in and hand you a bill for \$10 billion.

Mr. STOLAROW. Certainly not.

Senator PROXMIRE. The Navy has estimated a cost of \$24 million a ship for backfitting. What is backfitting? And what are the items involved?

Mr. STOLAROW. Backfitting means the particular piece of equipment or weapons system you are talking about is not available for installation at the time the ship is commissioned, so space and weight reservations are made on most ships to put these pieces of equipment in when they are available in production. It is known that they are going to be put in, and the provision is made for it.

Now, some of the items—

Senator PROXMIRE. Are they put in after the ship is launched?

Mr. STOLAROW. Right. Even sometimes after the ship is delivered to the fleet.

Senator PROXMIRE. Can you give us an example?

Mr. STOLAROW. Well, one, for example, is the Phalanx weapons system. The close-in weapons system is designed to be a last-ditch effort to hit an antiship missile that penetrates other defenses. That is still in the final stages of development and just recently authorized for production, and will not be really available for several years, but it is planned that that system will go on this ship and provisions are made to have space for it.

Senator PROXMIRE. Does that mean that the ships will be launched incomplete, without proper defensive equipment?

Mr. STOLAROW. It will not have everything intended for it; yes.

Senator PROXMIRE. Let's go back to the point you made about re-designing and rebuilding the stern. Isn't this an inefficient way to construct a ship, to send it out incomplete and bring it back and re-equip it?

Mr. STOLAROW. Well, no. In something like this, if you know what is going on, I don't see any big problem. As the Navy rightly points out, when you talk about problems like this, a ship program stretches over many years, and it may take in some of the bigger ships from the time of the initial design to the launching of the ship—it can be 7 or 8 years—and it is an attempt to make sure that you have the best equipment available onboard that ship, and so you can't always guarantee that the ship and all of its equipment, and newly developed, sophisticated equipment, will meet at the right time and the right placement, so I don't think that there is any really serious manage-

ment problem in doing it this way if you know your needs and made provision for it. It is better to do this than tear the ships apart.

Senator PROXMIRE. Are there any questionable items in the backfit here, the \$24 million per ship, is there anything you think is unjustified?

Mr. STOLAROW. No. I think the changes and the additional things they are putting on are cost-effective.

Senator PROXMIRE. Are all of these included in the \$195 million estimate?

Mr. STOLAROW. No; not all of them.

Senator PROXMIRE. Would you sit down and add up? Every time we turn around, we have another cost not included. We don't have the stern reconstruction, the helicopters, or the backfit items included. When you include all that, what is the total amount, and what is the cost, then, of the 52 ships? Instead of \$10 billion or \$12 billion, it would be \$13 billion, \$14 billion?

Mr. STOLAROW. The figures we have would look somewhere between \$15 million and \$20 million a ship—additional costs yet to be accounted for.

Senator PROXMIRE. It is more than that. You have the helicopters, two helicopters per ship, plus—

Mr. ASBY. These are backfit costs.

Senator PROXMIRE. I am asking for the whole shooting match, the cost for the entire weapons systems.

Mr. STOLAROW. I haven't made a calculation like that. But on the backfit items, we are talking about \$20 million, the two helicopters are \$36 million. So you are in the neighborhood of over \$50 million a ship.

Senator PROXMIRE. Say that again.

Mr. STOLAROW. We are talking in the neighborhood of over \$50 million a ship for the backfit items and the helicopters, the things that are not included in the current—

Mr. PROXMIRE. How about redesigning and rebuilding the stern?

Mr. STOLAROW. I am including that.

Senator PROXMIRE. In your opinion, will the costs rise further? If so, by how much?

Mr. STOLAROW. If previous ship programs are any indication, I don't think there is any doubt that they will rise further. I wouldn't want to take a guess as to how much more. It is hard to say. So much depends on the rate of inflation and other changes—

Senator PROXMIRE. The rate of inflation, again, I agree we can't hold the Navy or anybody else responsible for that, except maybe the Congress and the President.

Mr. STOLAROW. I feel sure, looking at other shipbuilding programs, there will be additional changes to this ship before the program is ended.

Senator PROXMIRE. Can you explain what is meant by concurrency in weapons procurement and tell us whether there is a concurrency problem in the FFG?

Mr. STOLAROW. Concurrency generally means that an item is put into production before the research, development and testing are complete. That means there are still some uncertainties, either in effectiveness,

performance, cost, but for various reasons a decision is made to put the item in production.

In the past, I think there has been much criticism of excessive concurrency with high risk items, because it has been well established that if you have to go back and redesign and modify something after it has gone into production, the costs rise significantly.

Some element of concurrency is probably warranted for low-risk items where you have a fairly good confidence, high-level confidence that the problem can be resolved with minimum costs. But in the FFG-7 program, I think you have to differentiate between the ship, that is, the basic hull and propulsion system itself, and the weapons systems and the electronics systems that are going onboard.

There is no concurrency—I don't think there is that much difficulty in building a hull of a ship. The problems are with the weapons systems and electronics, and there are certain elements of concurrency in many of those programs.

Senator PROXMIRE. Was untested equipment included on the lead ship, and did this equipment cause problems after the ship was delivered?

Mr. STOLAROW. We don't have any test results. Oh, well—OK. I am reminded that we have talked about the sonar system.

Senator PROXMIRE. That was untested.

Mr. STOLAROW. It was basically a new system, a cheaper system than the one originally intended for the ship, and they have had some serious problems in reliability and effectiveness of that system. That is being worked out—

Senator PROXMIRE. You say it was cheaper than originally intended?

Mr. STOLAROW. A different sonar was intended for the ship. In order to keep the costs down, a less expensive, less effective sonar was substituted.

Senator PROXMIRE. What was the difference in the cost?

Mr. STOLAROW. Well—

Senator PROXMIRE. From my understanding, there wasn't much, in percentage at least. Do you have that? Can you get us that for the record?

Mr. STOLAROW. Yes.

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

ESTIMATED COSTS OF SQS-23 AND SQS-56 SONARS

SQS-23 sonar, \$2.85 to \$2.93 million each; SQS-56 sonar, \$1.80 to \$2.04 million each.

Senator PROXMIRE. Are there items of weapons and equipment that are supposed to go on the FFG that were not on the lead ship when it was delivered?

Mr. STOLAROW. Yes. One I mentioned was the close-in weapons system.

Senator PROXMIRE. Will equipment be missing from others?

Mr. STOLAROW. I don't think there is any doubt about it. It depends when the ship is delivered, and this program will stretch over several years, and when the ship is delivered. I don't think you can say for any item which ship will be delivered with or without it.

Senator PROXMIRE. Will the LAMPS-Mk III, the helicopter, be on the first 23 ships when they are delivered?

Mr. STOLAROW. Probably not. That helicopter will not be available to the Navy until 1984.

Senator PROXMIRE. What helicopter will be on the ship?

Mr. STOLAROW. The LAMPS-Mk I helicopter, the less effective one that is being replaced.

Senator PROXMIRE. Did I understand that this ship was originally designed for three missions—antisubmarine, antiaircraft, and antisurface ship—and that it no longer is being considered as an antiaircraft weapons system. Or I should say, it is no longer being considered as an antisurface ship.

Mr. STOLAROW. It is still being considered a multipurpose ship. However, the antisurface capability will not be great due to a change in the mission of the LAMPS-Mk III helicopter.

Senator PROXMIRE. So one of the three missions is no longer viable.

Mr. STOLAROW. Right, to some degree.

Senator PROXMIRE. That means the utility of the ship, in view of its cost, is reduced further. Certainly, antisurface ship is an important part of its mission. So we are getting a less capable ship for more money, costing more money.

Mr. STOLAROW. I think the way to look at it is that because of the space limitations, any one ship probably cannot perform all three—can be available for—all three of those missions at any one time.

Senator PROXMIRE. When we bought this ship, it is like being a house, we had the notion it could be used for an antisurface ship and now we are told it cannot be. We are told we bought a house that had a furnace, and we get into it and find in January it doesn't have one.

Will there be enough LAMPS-Mk I's for all the FFG's, and will that LAMPS-Mk I be sufficient—

Mr. STOLAROW. There are not enough LAMPS helicopters to equip all the Navy's ships that are supposed to carry LAMPS-Mk I helicopters. The Navy's present plans call for shifting aircraft on and off ships as ships come in for overhaul and repair. So, during the next several years, there will not be enough helicopters available for all of the Navy ships that will require helicopters.

Senator PROXMIRE. Those helicopters absolutely are essential for the antisubmarine missions?

Mr. STOLAROW. Yes.

Senator PROXMIRE. So surface ship is out, and antisubmarine is out for the time being on many of the ships, and they won't have the LAMPS-Mk III, which is the really effective submarine weapons system, that goes 100 miles, so it will be defective in that way, also.

Mr. STOLAROW. The LAMPS-Mk III will not be available for 4 years.

Senator PROXMIRE. In 4 years, will there be enough LAMPS-Mk III's?

Mr. STOLAROW. No.

Senator PROXMIRE. When will they be equipped with the LAMPS-Mk III's?

Mr. STOLAROW. The late 1980's.



Senator PROXMIRE. Well, I want to thank you, very much, Mr. Stolarow, for a very, very helpful and responsive presentation. I wish you would stay for the rest of the testimony.

We are now going to have Mr. Harvie.

Mr. Harvie, I understand you are representing the Bath Iron Works. Is Mr. Sullivan here?

Mr. HARVIE. Mr. Sullivan is not here.

Senator PROXMIRE. Go ahead with your statement.

**STATEMENT OF JAMES HARVIE, VICE PRESIDENT, MARKETING,  
BATH IRON WORKS CORP., BATH, MAINE**

Mr. HARVIE. I am James Harvie, vice president, marketing, of Bath Iron Works Corp., a subsidiary of Congoleum Corp. of Milwaukee. I was formerly program manager for the FFG program at BIW. I am pleased to have the opportunity to appear before you today to discuss the FFG program.

Senator PROXMIRE. What city?

Mr. HARVIE. Milwaukee.

Senator PROXMIRE. Where is it located?

Mr. HARVIE. In the First Wisconsin Bank Building.

Senator PROXMIRE. Well, you are one of my bosses. Go ahead.

Mr. HARVIE. I will review briefly our view of the status of the program, how it is proceeding and the outlook for the future, and then describe what the Navy and Bath Iron Works have done to make it a successful program and the lessons we might learn from that program.

I am going to speak primarily to the equipment aspects and not the mission aspects that you have been referring to.

U.S.S. *Oliver Hazard Perry*, the FFG lead ship, was delivered ahead of the contract schedule as modified for changes. The original schedule was March 30, 1977. That contract delivery date was modified twice. First, in 1974, when an additional ship's service diesel generator set was added to the ship; and, second, in 1976 to reflect the cumulative effect of the many changes which had become necessary during the detail design development of the ship and factors beyond the control of either party.

The revised contract delivery date was December 30, 1977, and the actual delivery was November 30, 1977. Not only was the ship delivered ahead of her contract schedule, but she was a top-notch ship complete in all respects and proven thoroughly in her sea trials.

Eleven FFG ships are under contract to Bath Iron Works Corp. The contract delivery date and the Bath Iron Works proposed accelerated delivery date and the estimated progress as of mid-December, 1978, are shown in a schedule which I have provided for the record. The ships are being built to our accelerated schedule and we expect that they will be delivered an average of 7 weeks earlier than their contract schedule.

The first ship of this group has been launched and is 70-percent complete. The second ship will be launched in early March and is 58-percent complete. The keel for the third ship has been laid and it is now 36-percent complete. At this time, it appears that neither manpower,

facilities or materials will be any deterrent to meeting the accelerated schedules. Further, at this time, we do not foresee any Government changes which could cause a delay in the ship program.

The cost trends are favorable on the program. The lead ship ran over her target cost estimates at the shipyard largely due to unrecoverable inflation costs, but we understand that the total Navy cost was just within its target. The follow ships are trending below target costs. Large quantity material buys have helped as well as investments in facilities and new methods which were made by Bath Iron Works Corp.

Bath's acceleration of the schedule has also moved labor expenditures to an earlier time period, reducing the exposure to inflation. We have estimated that the acceleration will save the Navy a substantial amount of money as well as improving the profitability of the contracts for Bath Iron Works through the inventive cost-sharing provisions of the contracts.

Contractual relations have been harmonious throughout the program. Starting at the local level, we have established and maintained cordial but businesslike relations with the supervisor of shipbuilding who is the local Navy representative. We have also maintained from the outset of the program, excellent relations with the headquarters personnel at the Naval Sea Command. One of the most vital factors toward building these harmonious relationships has been the continuity of career personnel.

The FFG program was carefully planned so that the FFG project manager in NAVSEA had a 5-year tour of duty and many of his key naval officer personnel were rotated as their tours of duty came up from headquarters to field positions but within the same program, thus insuring that there was a good transfer or buildup of personnel who were very familiar with the program.

We set up an atmosphere of working problems out together rather than escalating or postponing solutions. We keep current with changes as they are proposed and attempt to work out the scope in advance so that we are aware of the impact on cost and schedule at the earliest possible moment, and to develop a method of incorporating the change that would minimize the impact on cost and schedule. We try to know what the Navy wants and why so we can work out a way to provide it expeditiously and at least cost.

Both NAVSEA and Bath Iron Works established strong project organizations staffed with experienced, high-caliber personnel charged with the total responsibility for success of the program.

The Navy's change policy has been very carefully considered for this program. First, they have weighed the military essentiality of each change carefully to insure that only truly necessary changes have been incorporated. We have from time to time proposed changes which have been necessary from a safety or operability standpoint and those too have been carefully reviewed to make certain that they were essential before we proceeded.

The goal has been to so insert changes in the program that no delay in the program results. A block approach to configuration and change control has been adopted by which changes are incorporated in the ships at each shipyard by fiscal year groups. This enables significant

changes to be made with minimum impact on work in process and also requires major changes, such as the stern redesign, to be incorporated at the outset of a contract rather than to be negotiated at a later time.

There were a number of innovations in the R'FG program, most of which were initiated by the Navy. They were developed by the Navy and shipyards working together. We considered the causes of problems with past programs and developed a program incorporating mutually developed solutions to these problems or ways of avoiding these problems.

We considered potential problems within this program as well and covered them either in the contracts or in the program plan. A major feature of the program was a careful approach to risk reduction or risk sharing on an equitable basis. This was done in several ways:

First, through adopting a schedule which provided time to plan, time to buy materials, then to build the ships.

This was the Navy's first "fly before buy" approach of evaluating lead ship design as thoroughly as possible before embarking upon construction of the follow ships. This led to a separation between the lead and follow ships of about 2 years.

We looked at both longer and shorter periods of time. It seems that 2 years was about the optimum time for the FFG, at least.

Two land-based test sites were built to prove out the areas of the ship when had the most potential for problems—the combat system and the propulsion system. The entire combat system was operating in a land-based test site at Sperry and the propulsion system was operating in a land-based test site at NAVSEC, Philadelphia, early in the ship construction period so that problems could be worked out before lead ship construction was well advanced.

Contract types were selected to be compatible with the degree of definition of the design. The design contract was a cost-plus-fixed-fee contract, while the lead ship was built under a cost-plus-incentive-fee contract. The follow ships are being built under fixed-price/incentive-fee contracts. Thus the risk has been transferred progressively from the Government to the contractor as the degree of definition of the design has been improved.

In the contracts there has been a very careful definition of the responsibilities and obligations of both parties. Government-furnished information and material are carefully spelled out as to what is going to be furnished and when it is going to be furnished.

There is a contract data requirements list listing all of the documents which must be provided by the contractor, specifying time of delivery as well as format and content. The lead yard services which were to be provided by the Government or the lead shipbuilder to the follow ship builders were carefully spelled out as well as the very complete standardization requirement.

The work of building the follow ships has been spread geographically to three areas, to avoid overload of facilities or skills in any one area and to reduce the risk of a ripple effect from changes, should that occur.

Follow ship contracts have included provisions for escalation recovery on labor, overhead, and material costs to allow setting tight target costs and use of relevant BLS indexes to compute payments for escalating costs.

A significant feature of this program was the work done with the Navy with two shipyards during the design development process before the lead ship design and construction were contracted for. Two shipbuilders moved key people to the Washington area to work very closely with the Navy in developing the program and in developing means to make the ships easy to build in any one of several shipyards.

An important factor from our standpoint is that the contract actions adhered to the schedule, that is, if NAVSEA said they were going to issue an RFP on a given date and a contract on a given date, they did so. They did so because they realized that a month at the start is just as important as a month at the end of the contract.

It appears that many of the innovations of the FFG program are being incorporated in the planning for current and future Navy programs. The thinking is good and it should be adopted, tailored, of course, to suit the needs of those programs.

I would like to summarize our company's reaction to the program by saying we are very enthusiastic. Because of the long-term workload we have made facility investments which have been valuable to us on this program and will be valuable to us and to the Navy on future programs.

It has enabled an orderly, planned buildup of the needed skills. It has provided an equitable distribution of risks between the parties as well as an opportunity to make a reasonable profit over an extended period of time. The spread in time between the lead ship and the follow ships gave us a proven design, complete planning and enabled us to have the materials on hand to build the ships in a most orderly fashion. We think that the changes are being administered wisely. The production continuity both at the shipyards and the subcontractors' and suppliers' plants should be beneficial to the marine industry as a whole.

Thank you for the opportunity of appearing before you today. I hope that my statement will be of value to you.

[The prepared statement of Mr. Harvie follows:]

#### PREPARED STATEMENT OF JAMES HARVIE

I am James Harvie, Vice President—Marketing of Bath Iron Works Corporation and formerly Program Manager for the FFG Program at BIW. I am pleased to have the opportunity to appear before you today to discuss the FFG Program. I will review briefly our view of the status of the Program, how it is proceeding and the outlook for the future, and then describe what the Navy and Bath Iron Works have done to make it a successful Program and the lessons we might learn from that Program.

U.S.S. *Oliver Hazard Perry*, the FFG Lead Ship was delivered ahead of the Contract Schedule as modified for changes. The original schedule was March 30, 1977, set in October 1973 when the Contract was awarded. That Contract Delivery Date was modified twice. First, in 1974 when an additional Ship's Service Diesel Generator Set was added to the ship; and second, in 1976 to reflect the cumulative effect of the many changes which had become necessary during the detail design development of the ship and factors beyond the control of either party. The revised Contract Delivery Date was December 30, 1977 and the actual delivery was November 30, 1977. Not only was the ship delivered ahead of her Contract Schedule, but she was a top-notch ship complete in all respects and proven thoroughly in her Sea Trials.

Eleven FFG Follow Ships are under Contract to Bath Iron Works Corporation. The Contract Delivery Date and the Bath Iron Works proposed accelerated Delivery Date and the estimated progress as of mid-December, 1978 are shown

in a Schedule which I will provide for the record. The ships are being built to our accelerated schedule and we expect that they will be delivered an average of 7 weeks earlier than their Contract Schedule. The first ship of this group has been launched and is 70 percent complete. The second ship will be launched in early March and is 58 percent complete. The keel for the third ship has been laid and it is now 36 percent complete. At this time, it appears that neither manpower, facilities or materials will be any deterrent to meeting the accelerated schedules. Further, at this time we do not foresee any Government changes which could cause a delay in the ship program.

The cost trends are favorable on the program. The Lead Ship ran over her target cost estimates at the shipyard largely due to unrecoverable inflation costs, but we understand that the total Navy cost was just within its target. The Follow Ships are trending below target costs. Large quantity material buys have helped as well as investments in facilities and new methods which were made by Bath Iron Works Corporation. Bath's acceleration of the schedule has also moved labor expenditures to an earlier time period, reducing the exposure to inflation. We have estimated that the acceleration will save the Navy a substantial amount of money as well as improving the profitability of the Contracts for Bath Iron Works through the incentive cost sharing provisions of the Contracts.

Contractual relations have been harmonious throughout the Program. Starting at the local level, we have established and maintained cordial but businesslike relations with the Supervisor of Shipbuilding who is the local Navy representative. We have also maintained from the outset of the Program, excellent relations with the Headquarters personnel at the Naval Sea Systems Command. One of the most vital factors towards building these harmonious relationships has been the continuity of career personnel. The FFG Program was carefully planned so that the FFG Project Manager in NAVSEA had a five-year tour of duty and many of his key Naval officer personnel were rotated as their tours of duty came up from Headquarters to field positions but within the same program, thus insuring that there was a good transfer or build-up of personnel who were very familiar with the Program. We set up an atmosphere of working problems out together rather than escalating or postponing solutions. We keep current with changes as they are proposed and attempt to work out the scope in advance so that we are aware of the impact on cost and schedule at the earliest possible moment, and to develop a method of incorporating the change that would minimize the impact on cost and schedule. We try to know what the Navy wants and why so we can work out a way to provide it expeditiously and at least cost.

Both NAVSEA and Bath Iron Works established strong project organizations staffed with experienced, high-caliber personnel charged with the total responsibility for success of the Program. As Program Manager from the outset, I reported directly to the President of BIW and managed all efforts within the shipyard and at several field offices. My Program staff included some of the most experienced and capable middle management personnel in the shipyard, including technical, contracts, production, and procurement specialists. This organization has been reduced in size gradually as the various FFG functions have become integrated with shipyard operating functions. Our NAVSEA counterparts were of comparable excellence.

The Navy's change policy has been very carefully considered for this Program. First, they have weighed the military essentiality of each change carefully to insure that only truly necessary changes have been incorporated. We have from time to time proposed changes which have been necessary from a safety or operability standpoint and those too have been carefully reviewed to make certain that they were essential before we proceeded. The goal has been to so insert changes in the Program that no delay in the Program results. A block approach to Configuration and Change control has been adopted by which Changes are incorporated in the ships at each shipyard by fiscal year groups. This enables significant changes to be made with minimum impact on work in process and also requires major changes to be incorporated at the outset of a contract rather than to be negotiated at a later time.

There were a number of innovations in the FFG Program, most of which were initiated by the Navy. They were developed by the Navy and shipyards working together. We considered the causes of problems with past programs and developed a program incorporating mutually developed solutions to these problems or ways of avoiding these problems. We considered potential problems within this Program as well and covered them either in the Contracts or in the Program Plan.

A major feature of the Program was a careful approach to risk reduction or risk sharing on an equitable basis. This was done in several ways:

First, through adopting a schedule which provided time to plan, time to buy materials, then to build the ships.

This was the Navy's first "Fly Before Buy" approach of evaluating Lead Ship design as thoroughly as possible before embarking upon construction of the Follow Ships. This led to a separation between the Lead and Follow Ships of about two years. From the standpoint of getting ships into the fleet, less time would have been desirable but more time would be desirable from the standpoint of completing the design and proving it out before starting construction of the Follow Ships. We looked at both longer and shorter periods of time. Shorter time would have enabled us to have more direct transfer of skilled people from the Lead Ship to the first Follow Ship and a period much longer than two years would have made it difficult to have retained the skilled trades as well as to hold the capacity available for the Follow Ships. It seems that two years was about the optimum time for the FFG, at least.

Two Land-Based Test Sites were built to prove out the areas of the ship which had the most potential for problems, the combat system and the propulsion system. The entire combat system was operating in a Land-Based Test Site at Sperry and the propulsion system was operating in A Land-Based Test Site at NAVSEC, Philadelphia early in the ship construction period so that problems could be worked out before Lead Ship construction was well advanced.

Contract types were selected to be compatible with the degree of definition of the design. The Design Contract was a cost-plus fixed-fee contract while the Lead Ship was built under a cost-plus-incentive fee contract. The Follow Ships are being built under fixed-price-incentive fee contracts. Thus the risk has been transferred progressively from the Government to the Contractor as the degree of definition of the design has been improved.

In the contracts, there has been a very careful definition of the responsibilities and obligations of both parties. Government-furnished information and material are carefully spelled out as to what is going to be furnished and when it is going to be furnished. There is a Contract Data Requirements List listing all of the documents which must be provided by the Contractor specifying time of delivery as well as format and content. The Lead Yard Services which were to be provided by the Government or the Lead Shipbuilder to the Follow Ship builders were carefully spelled out as well as the very complete standardization requirement.

The work of building the follow ships has been spread geographically to three areas, to avoid overload of facilities or skills in any one area and to reduce the risk of a ripple effect from changes should that occur.

Follow Ship contracts have included provisions for escalation recovery on labor, overhead and material costs to allow setting tight target costs and use of relevant BLS indices to compute payments for escalating costs.

A significant feature of this Program was the work done with the Navy with two shipyards during the design development process before the Lead Ship Design and Construction were contracted for. Two Shipbuilders moved key people to the Washington area to work very closely with the Navy in developing the Program and in developing means to make the ships easy to build in any one of several shipyards. An important factor from our standpoint is that the contract actions adhered to the schedule, that is, if NAVSEA said they were going to issue an RFP on a given date and a Contract on a given date, they did so. They did so because they realized that a month at the start is just as important as a month at the end of the Contract. If you want to adhere to a contract delivery date, you should sign the Contract on Schedule. It appears that many of the innovations of the FFG Program are being incorporated in the planning for current and future Navy Programs. The thinking is good and it should be adopted, tailored, of course, to suit the needs of those Programs.

I would like to summarize our Company's reaction to the Program by saying we are very enthusiastic. Because of the long-term workload we have made facility investments which have been valuable to us on this Program and will be valuable to us and to the Navy on future Programs. It has enabled an orderly, planned build-up of the needed skills. It has provided an equitable distribution of risks between the parties as well as an opportunity to make a reasonable profit over an extended period of time. The spread in time between the Lead Ship and the Follow Ships gave up a proven design, complete planning and enabled us to have the materials on hand to build the ships in a most orderly fashion. We

think that the changes are being administered wisely. The production continuity both at the shipyards and the subcontractors' and suppliers' plants should be beneficial to the Marine Industry as a whole.

Thank you for the opportunity of appearing before you today. I hope that my statements will be of value to you.

BATH IRON WORKS CORP.—FFG PROGRAM—FOLLOW SHIP DELIVERY SCHEDULES AND LABOR PROGRESS

	Contract delivery	Accelerated delivery	Estimates progress as of December 17 (percent)
FFG-8.....	January 1980.....	December 1979.....	70
FFG-11.....	June 1980.....	April 1980.....	58
FFG-13.....	October 1980.....	August 1980.....	46
FFG-15.....	February 1981.....	November 1980.....	36
FFG-16.....	May 1981.....	March 1980.....	29
FFG-21.....	August 1981.....	June 1980.....	13
FFG-24.....	November 1981.....	October 1981.....	9
FFG-26.....	February 1982.....	January 1982.....	8
FFG-29.....	May 1982.....	May 1982.....	5
FFG-32.....	August 1982.....	do.....	2
FFG-34.....	November 1982.....	November 1982.....	2

Senator PROXMIRE. Thank you, Mr. Harvie.

As you can undoubtedly gather, I cannot find much to agree with you on in your statement. You indicate that this was delivered on time, the first ship was delivered on time, and you indicate that you are enthusiastic about the program, and I think the program is wisely conducted and so forth.

Here is a program that was 8 months late, incomplete when it was delivered, way, way, way over costs, one of the biggest cost overruns I have ever seen, a \$12½ billion program, supposed to be \$3 billion, failing to include many of the most vital elements in total.

I am not blaming you, or the Bath Iron Works. The changes seem to be changes for which the Navy was responsible. If this is a good program, it certainly is not good for the taxpayer. It certainly isn't good where you have a situation where the cost is so very, very high and the ship is so vulnerable and has to be redesigned after it is delivered, has to be brought back and redesigned. So I wonder if you are really as enthusiastic about this program now after listening to the GAO as you were when you wrote this statement.

Mr. HARVIE. Yes, I am as enthusiastic about the program.

Senator PROXMIRE. Maybe it is good for Bath, and maybe it is not very good for the taxpayer. I am not enthusiastic as a Member of Congress for a program that is supposed to cost \$65 million a copy and now is costing \$195 million, or \$200 million, or \$225 million, depending on what you include.

What is your answer to that?

Mr. HARVIE. If I went to buy an automobile in 1970, I would pay substantially less than today.

Senator PROXMIRE. After all, the GAO and the Navy indicate that only one-third was because of inflation. Two-thirds of it was because of changes of various kinds.

Mr. HARVIE. I can only speak to our part of the program, which does not include the weapons system and Government-furnished parts of the program.

I can see significant increases because of inflation. On the lead ship, some items increased 30 or 40 percent in the life of construction of that ship alone.

Senator PROXMIRE. But this is an increase of 200 percent.

Mr. HARVIE. Yes; but over a longer time period.

Senator PROXMIRE. Well, the capital goods inflation rate is about—during this period—was about 65 percent, and the increase in price here during this period was 200 percent. So, obviously, inflation was, as the Navy indicated, about a third.

Mr. HARVIE. Our experience is that the BLS index rarely reflects the real differences in cost of goods.

Senator PROXMIRE. I would like to see any other inflation indicator. I don't take the consumer price indicator. I think the capital equipment indicator is about as close as you can get.

Well, Mr. Harvie, you have said earlier that the Navy has not consulted you about the need to redesign the stern.

Were you surprised at the testimony you heard today about the necessity of redesigning the stern?

Mr. HARVIE. No; I have been aware of the need to make the change to suit the changed characteristics of the ship for sometime.

Senator PROXMIRE. Have you been aware for sometime of the need to modify the stern?

Mr. HARVIE. Yes.

Senator PROXMIRE. For how long?

Mr. HARVIE. Over a year.

Senator PROXMIRE. What did you mean when you said earlier that you weren't consulted?

Mr. HARVIE. The specific question, as I recall it, was, were we consulted about backfitting the change into the earlier ships we had under contract.

I was aware that a characteristics change was planned for fiscal year 1979 and later ships, and that we would be called upon to design that and build it into the ships in 1979 and later.

Senator PROXMIRE. Wouldn't it be possible to modify the stern during construction, and doesn't it make sense to do that, rather than to recall them after they have been built, and lose 6 months to a year, plus the additional cost of having them come in and reconstruct them, rather than build them from scratch?

Mr. HARVIE. There are two parts to the question.

The first is: Can it be done in the construction initially?

The answer is "Yes."

Part two: Does it make sense? I think you would have to look at the construction status of each ship and see whether it would be appropriate to delay the ship to make that change.

Senator PROXMIRE. Give me a situation in which it would be unwise to rebuild it during construction rather than recalling it?

Mr. HARVIE. Rather than simply having one ship under construction, as we did in the lead ship situation, there are ships under construction at three different shipyards with close intervals between them, anywhere from 3 to 6 months, I believe, and it would happen probably that if you tried to make a change on the ship most nearly



complete, you would cause a delay which might be reflected in each of the subsequent ships. So, it is appropriate to choose a point in the construction process where you would make the change with least disruption.

I suppose you could make a tradeoff study, that the cost is so much and the disruption is so much, to select the right point.

Senator PROXMIRE. You are making an assumption that the ship is a valuable and useful ship even though it has to have a lighter helicopter and even though it is, the helicopter, that is, has a very limited range, and it is therefore worth delivering it in that inferior posture, rather than delivering it so that it can take the LAMPS-Mk III helicopter which has the 100-mile range.

Mr. HARVIE. That helicopter will not be available for some years in the future. We are building the ships to suit the helicopters available today, so that the ship can fulfill the mission as in its requirements.

Senator PROXMIRE. It cannot perform the mission with that helicopter.

Mr. HARVIE. I am referring to the requirements which the ships through fiscal year 1978 were designed to.

Senator PROXMIRE. Now, they tell us that is not adequate, that that won't do the job, that a shorter range and the LAMPS-Mk I helicopter, won't do it. So you are doing something that won't do the job, and you give it to them for 1 year and then you call it back and delay further the reconstruction.

Mr. HARVIE. That is the inevitable technological change, I feel.

Senator PROXMIRE. Why is it inevitable? Why, when the Navy knew more than 2 years ago, September 1976, what is inevitable about this? Why isn't it bad judgment and mismanagement on their part—

Mr. HARVIE. I don't think I am qualified to answer that, because I don't know all the facts behind it.

Senator PROXMIRE. Doesn't it seem logical that it would be better to make the decision when you know what you need rather than postpone it?

Mr. HARVIE. I think the decision was made at an appropriate time, given the state of the construction progress of the ship and the availability of the equipment.

Senator PROXMIRE. Can you estimate what it would cost to build a modified stern during construction? Would that be cheaper than recalling them?

Mr. HARVIE. I hesitate to make an off-the-cuff estimate of something of this significance. We have estimated in the cost of the fiscal 1979 ships the cost of making this change. It is somewhat less, probably, than the cost of removing work already complete and rebuilding it.

Senator PROXMIRE. How much less? Would it be half as much?

Mr. HARVIE. Probably about half.

Senator PROXMIRE. About half. So you would say, maybe, depending on the cost, if it is \$7 million, as the Navy indicated, it would be \$3½ million. If it is \$13 million, you would save \$6½ million a ship.

Mr. HARVIE. I don't believe that is accurate. I am looking at the ship-building costs alone, and I am sure your figures include the equipment, which would not be changed.

Senator PROXMIRE. Are you aware of the FFG survivability problem and the steps being taken by the Navy to correct that?

Mr. HARVIE. I am aware of that; yes.

Senator PROXMIRE. Couldn't this have been avoided by a better ship design.

Mr. HARVIE. I think as was said earlier, if consideration had been given to locating all of the vital equipment and munitions and so on in protected locations, you would have had a much larger ship.

Senator PROXMIRE. Isn't that a fault of the design then? Shouldn't we have been frankly told, "If you want a ship that won't be put out of commission by a lucky rifle shot or a fragment of a grenade, you ought to have a bigger ship?"

The Navy was concerned about it, and, now, they are putting up this material [indicating] to defend it, but that won't make it invulnerable.

Mr. HARVIE. That material is being fitted to the lead ship, I know, and all the follow ships.

Senator PROXMIRE. Couldn't all this have been avoided by a better ship design? Why wasn't Bath aware of the survivability problems when the designs were prepared? You are a veteran shipbuilder. You have a fine reputation. You have had a lot of experience with this.

Why weren't you in a position to advise the Navy?

Mr. HARVIE. Well, we participated with the Navy in a series of design reviews as the ships' characteristics and basic layout were being developed. The mission-related parts of the ship design were dictated by people who are more expert in how the ship is going to be used than we are. The construction of the ship—

Senator PROXMIRE. Did you tell them it would be vulnerable to cheap kills?

Mr. HARVIE. I don't recall that we did.

Senator PROXMIRE. Why not?

Mr. HARVIE. We were working primarily on the design features for reliability and cost and things of that sort, rather than the mission effectiveness aspects.

Senator PROXMIRE. Well, I am not talking about mission effectiveness. I am talking about whether the ship can survive. This is as bad as having a hole in the bottom as far as the mission is concerned.

Mr. HARVIE. There were studies, I am sure, conducted by the Navy in that time period. I am not aware of them, however.

Senator PROXMIRE. How much would it cost if we could solve the problem—

Mr. HARVIE. I couldn't hazard a guess.

Senator PROXMIRE. You say the first thing is to have a bigger ship, and you have to have a capacity below the superstructure for putting your critical equipment.

Can you give us any notion of what that would add in cost? Would it double the cost, triple the cost?

Mr. HARVIE. I doubt if it would double the cost, because you would be installing the same equipment, which is a major part of the cost.

Senator PROXMIRE. Ten percent? Can you give us a rough indication? You are an expert in the field.

Mr. HARVIE. I think that is a tough question to ask. From a ship-builder's viewpoint, a slightly larger envelope would not have cost a great deal more.

Senator PROXMIRE. Why was it necessary to add a diesel generator set, and how much did it add to cost?

Mr. HARVIE. I don't recall how much it added to the cost of each follow ship. It is a relatively small investment in improved reliability and survivability of the ship.

Senator PROXMIRE. When you say a relatively small investment how much?

Mr. HARVIE. I think the diesel itself costs less than one-half of a million dollars.

Senator PROXMIRE. One-half of a million dollars?

Mr. HARVIE. Yes.

Senator PROXMIRE. And what did it contribute? What was the advantage?

Mr. HARVIE. The advantage is increased reliability of the ship systems, and the survivability, because this generator was located in a separate compartment.

Senator PROXMIRE. But once again, because the design didn't foresee this, it cost one-half of a million dollars more than it would have cost if that hadn't been necessary.

Do fin stabilizers have to be backfitted?

Mr. HARVIE. Fin stabilizers are part of the characteristics for the 1979 ships, and we understand there are plans to backfit them on some of the ships of the class.

Senator PROXMIRE. Why do fin stabilizers have to be backfitted on all the ships? Doesn't this indicate ineffective design and inefficient management of the program?

Mr. HARVIE. The Navy Sea Systems Command was responding to characteristics laid down which did not call for fin stabilizers. The studies indicated with the small, light helicopter you could operate the ship without fin stabilizers. I think the larger helicopter gave rise to the need for the fins, but that is an opinion of mine.

Senator PROXMIRE. So the larger helicopter is the reason for this. That larger helicopter program was known by the Navy in 1978, 2½ years ago.

I will ask Mr. Kaufman to follow up on that.

Mr. KAUFMAN. Wouldn't it have been possible for the Navy to have asked for a change in the design of the ship in 1976 to incorporate fin stabilizers at that time, since the ships were then in a much earlier stage of construction than they are at right now?

Mr. HARVIE. Yes; they could have asked for that. In fact, in the original design, space and weight were left in the ship design for the ultimate installation of this equipment.

Senator PROXMIRE. What other changes were made, and what were the factors beyond the control of either party in the construction?

You are talking about the factors beyond the control of either party.

Mr. HARVIE. The shaft strut, a major casting in the ship was delayed by a strike in the foundry. We had a short strike in our shipyard.

Senator PROXMIRE. How long was the strike in the foundry?

Mr. HARVIE. I believe that was 6 weeks.

Senator PROXMIRE. You had a strike at the shipyard. That was how long?

Mr. HARVIE. I believe that was 4 or 5 weeks.

Senator PROXMIRE. How much did that add in the cost, in the delay? It was just about the duration of the strike, in other words, the 6 and 4 weeks, that is 10 weeks, 2½ months?

Mr. HARVIE. No. Some of these things were running in parallel.

Senator PROXMIRE. I see.

Do you feel that in all cases strikes are out of your control? Isn't that something management can be responsible for?

Mr. HARVIE. To some extent, yes.

Senator PROXMIRE. How much of the cost overrun is attributable to inflation?

Mr. HARVIE. I don't have a reliable figure with me. I can develop that and let you know.

Senator PROXMIRE. Would you?

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

BATH IRON WORKS CORPORATION

*Estimated excessive inflation impact on FFG-7 class lead ship design and construction*

	<i>In millions of dollars</i>
Design (CPFF portion of contract):	
Estimated final negotiated contract cost.....	58.8
Estimated cost at completion.....	72.6
Estimated variance .....	(13.8)
Estimated inflation in excess of that included in negotiated cost...	9.5
Estimated net variance, all other causes.....	(4.3)
Ship construction (CPIF portion of contract):	
Estimated final negotiated contract cost.....	62.1
Estimated cost at completion.....	78.0
Estimated variance .....	(15.9)
Estimated inflation in excess of that included in negotiated cost...	12.5
Estimated net variance, all other causes.....	(3.4)
Total contract:	
Estimated final negotiated contract cost.....	120.9
Estimated cost at completion.....	150.6
Estimated variance .....	(29.7)
Estimated inflation in excess of that included in negotiated cost...	22.0
Estimated net variance, all other causes.....	(7.7)

Senator PROXMIRE. Why is there so little margin for weight growth in the future?

You discussed that future weight growth problem. Mr. Stolarow, I think, wisely pointed out that there is very little margin for flexibility here, particularly in view of the fact that you are going to add weight with the new stern.

Why, as I say, was there so little margin for future weight growth in the ship?

Mr. HARVIE. Well, the basic approach to designing the ship was the design-to-cost philosophy, and one of the things you look for is what drives up costs. The size of the ship usually has a major impact on cost. An attempt was made not to provide redundancies in space for unknowns. We tried to leave space and weight for things that were known to be added.

For example, space and weight allowances were made for the fin stabilizers and for helicopter haul-down systems and for a few other items.

Now, that was not to say that the ships were incomplete without them. It is merely to say that a reserve was allowed for eventual installation of this equipment.

Then, after that was done, a smaller-than-average overall margin was allowed.

Senator PROXMIRE. Well, in hindsight, in view of the fact that you have a new stern that has to be designed, that will make it heavier, in view of the basic argument of Mr. Stolarow that this reduces the life of the ship, because over a period of 25 years, perhaps in the next 5, 10, or 15 years, you are going to have to modify the ship further, and, if this reduces the life of the ship sharply, do you feel that the size of the ship, that it would have been better to have made it somewhat larger?

Mr. HARVIE. No: I think there are several factors we could look at today that were different in the past. We designed the helicopter deck to withstand the weight of the heavier helicopter. I think the weight increase would be relatively small. So I don't think we are going to be adding a major amount of weight to the ship.

Second, we added, early in the program, the extra diesel generator. One of the reasons that was done was because, in analyzing the mid-life modifications of most of the Navy's ships, one of the additional features was adding additional generating capacity to the ship. So we put the generating capacity in at a time that it was available to us at the least cost. We didn't have to have a margin for that.

We are finding with electronics and solid state circuitry, and things of that sort, the newer developments in electronics and weapons systems tend to be in some cases smaller and lighter than the ones they are replacing.

One of the characteristics of this program is, if you have a better item to add to the ship, you don't put it on in addition to what is there. You take off an earlier piece of equipment and replace it with a better piece of equipment. So I think it was carefully considered.

Senator PROXMIRE. How much weight will be added?

Mr. HARVIE. I don't know.

Senator PROXMIRE. What is your contract price for all the FFG's and what are your current estimates to complete them?

Mr. HARVIE. I don't have that information with me. If you would like me to provide it, I will do so.

Senator PROXMIRE. We would appreciate that.

[The information referred to follows:]

**BATH IRON WORKS CORP.—FFG FOLLOW SHIP PROGRAM—CONTRACT COST, PRICE, AND ESTIMATES AT COMPLETION**

	Original contract unescalated	Negotiated Sept. 30, 1978 unescalated	Estimated at completion Sept. 30, 1978 unescalated	Estimated at completion Sept. 30, 1978 escalated
<b>Contract N00024-76-C-2001:</b>				
FFG-8 .....	\$45,649,929	\$48,247,854	\$47,100,000	\$56,200,000
FFG-11 .....	38,982,927	39,467,308	39,400,000	47,400,000
FFG-13 .....	37,904,606	38,333,795	38,300,000	46,400,000
FFG-15 .....	37,089,978	37,414,018	37,800,000	46,400,000
FFG-16 .....	36,684,782	36,901,321	37,400,000	46,400,000
<b>Total cost</b> .....	<b>196,312,222</b>	<b>200,364,026</b>	<b>200,000,000</b>	<b>242,800,000</b>
<b>Profit</b> .....	<b>27,483,711</b>	<b>28,050,963</b>	<b>28,109,000</b>	<b>28,109,000</b>
<b>Price</b> .....	<b>223,795,933</b>	<b>228,414,989</b>	<b>228,109,000</b>	<b>270,909,000</b>
<b>Contract N00024-77-C-2080:</b>				
FFG-21, FFG-24, FFG-26, FFG-29, FFG-32, FFG-34 .....	260,775,026	261,765,179	261,765,000	( <sup>1</sup> )
<b>Profit</b> .....	<b>36,646,803</b>	<b>36,795,188</b>	<b>36,795,000</b>	<b>(<sup>1</sup>)</b>
<b>Price</b> .....	<b>297,421,829</b>	<b>298,560,367</b>	<b>298,560,000</b>	.....

<sup>1</sup> Not available.

Senator PROXMIRE. Have you had to redesign and modify your stern—or, if you had to do that, could you still meet your delivery schedule?

Mr. HARVIE. That is a very broad question.

Certainly not on the earliest of the follow ships, which are now very well advanced, as I mentioned in my prepared statement.

Senator PROXMIRE. All right.

Mr. Harvie, I want to thank you, too. I didn't mean to imply any criticism of you in my questioning, but, once again, I must say that I am deeply concerned about this.

In the original estimate of the cost per copy, that was in 1971, I understand, and it was \$48 million, or something like that. In 1973, it was \$65 million.

Now, these estimates are supposed to include estimates for inflation. The inflation, I am sure, was understated, and that is understandable, because nobody anticipated the inflation we have had. But, as I say, even if you allow fully for inflation, and make the assumption in 1973 that there was no estimate for inflation, it would still only account for one-third of the cost.

With the allowance for inflation, I think it would be one-third, or one-sixth, or one-eighth, or one-tenth of the cost.

So here is a ship that does come in way, way, way over cost. For whatever reason, the delivery date on the first copy was late. We are going to have a further 6-to-12 month delay now in the ships before they are capable of fulfilling their mission because of the helicopter problem and the reconstruction of the stern, and the ship is vulnerable, and for years it will not be able to perform its mission adequately because the helicopter is too light, and the big helicopter won't be available.

So, all in all, I think that the Congress and the taxpayer have a great deal to complain about and be concerned about.

Certainly that article by George Wilson indicated early that this is the best ship in 20 years. If that is correct, we really are in trouble.

Mr. Stolarow, I understand the Navy intends to build a new series of ships called TAGOS.

Can you explain what you know about that ship?

Mr. STOLAROW. That is designed to be a long-range surveillance ship, primarily for submarines. It is designed to operate in conjunction with other surveillance activities and to feed information to shore stations that would enable the Navy to locate and keep track of Soviet submarines.

The problem we have right now is that the Navy is asking for funds to begin construction of these ships, but there are serious technical problems with the sonar system, the so-called surtass system, that is really the key part of the ship's system. It is still in early stages of development. There are still problems with accumulating the data, feeding it to the shore stations, and it has to be operated in conjunction with a satellite for feeding information to the shore.

There are many serious technical problems with this, and we are concerned that the Navy may be moving ahead too fast to build the ships without knowing if these technical problems can be resolved.

Senator PROXMIRE. So, on the one hand you have technical problems that haven't been resolved, and those technical problems may make it costly and delay it. I understand the life cycle costs for the 12 TAGOS ships are estimated at \$2 billion. Is it true, although you have given some explanation now of what the mission is supposed to be, that the Navy still has not provided the justification for this ship, the formal justification of why this ship is necessary at that very high cost?

Mr. STOLAROW. That is correct.

Senator PROXMIRE. They have not provided it. Is the specific problem in this program excessive concurrency?

Mr. STOLAROW. I think so.

Senator PROXMIRE. What would be your recommendation on this program?

Mr. STOLAROW. My recommendation would be that the Congress not fund the ship until it is satisfied that the technical problems are solvable and are reasonably in hand.

Senator PROXMIRE. Well, gentlemen, I want to thank you very, very much. I think you have made a fine record and a record for which the Navy has a lot to account for.

They will be here tomorrow, as you know. Secretary of the Navy Graham Claytor and chairman of the board of Todd Shipyards, John Gilbride, will be our witnesses tomorrow.

Thank you very much.

The subcommittee will stand in recess until 10 o'clock tomorrow morning.

[Whereupon, at 11:47 a.m., the subcommittee recessed, to reconvene at 10 a.m., Thursday, January 4, 1979.]

## ECONOMICS OF DEFENSE PROCUREMENT: SHIPBUILDING CLAIMS

THURSDAY, JANUARY 4, 1979

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 recess, at 10:06 a.m., in room 5302, Dirksen Senate Office Building, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senators Proxmire and Warner.

Also present: Richard F. Kaufman, general counsel; Katie MacArthur, press assistant; and Mark Borchelt, administrative assistant.

### OPENING STATEMENT OF SENATOR PROXMIRE, CHAIRMAN

Senator PROXMIRE. The subcommittee will come to order.

Secretary Claytor, the subcommittee is honored to have you with us this morning.

Secretary CLAYTOR. Thank you.

Senator PROXMIRE. We are glad to be having this very interesting inquiry.

The Navy asserts that the FFG program is different from other shipbuilding contracts, based on the lessons learned from earlier experience and a point of departure upon which improvements have been and will continue to be made. Navy spokesmen point out there have been no claims filed by the FFG shipbuilders and some argue that it is the best ship built in 20 years. Now we can agree that the FFG program is different from other shipbuilding contracts, but is it better? Based on yesterday's testimony the answer has to be a resounding No.

The FFG may turn out to be the most unsound shipbuilding program in recent years and those familiar with fiascoes such as the DE1052, LHA and DD963 know that they are hard to beat. Here is a ship which, according to official figures, already has a \$7 billion cost overrun. The current estimate to complete 52 ships is \$10.1 billion and an additional \$2 billion plus is not even included in the official figures. Excluded from the official figures are the costs of rebuilding the stern and a number of items such as fin stabilizers and weapons that have to be backfitted on the ship after it is delivered to the Navy.

I can't think of a worse way to build a ship. Reconstructing the stern will take the ships out of action and keep them in drydock from 6



months to a year. The Navy is pleased that so far there have been no FFG claims. Well, I'm pleased, too. The Navy appears to have "solved" the claims problem by sweeping them under the deck. It is no solution at all to postpone necessary changes until after the ship is delivered when they will be more costly to the taxpayer.

Worst of all, the FFG is vulnerable to "cheap kills." It is subject to low level enemy threats, although not so low perhaps as to include the U.S. Congress. The FFG may be the best example of military planned obsolescence since the B-70.

The Navy began this program by asking Congress to approve a new series of small, fast, highly capable and low-cost ships. We are getting ships that are small, not so fast, with reduced capabilities and very expensive. The effects of such wasteful expenditures are to weaken our defenses and add to economic inflation.

Our first witness this morning is W. Graham Claytor, Secretary of the Navy. Secretary Claytor will be followed by John T. Gilbride, chairman of the board and chief executive officer of Todd Shipyards Corp.

Secretary Claytor, we are pleased to have you with us once again. You have always been candid and helpful to this subcommittee and I very much appreciate that attitude. You and I have worked together on a number of occasions and I have greatly admired your dedication to your work and your deep concern about costs and about doing the best job that you feel you can. You may present your prepared statement as you wish and then we will get into the questions.

**STATEMENT OF HON. W. GRAHAM CLAYTOR, JR., SECRETARY OF THE NAVY, ACCOMPANIED BY EDWARD HIDALGO, ASSISTANT SECRETARY; TOGO D. WEST, JR., GENERAL COUNSEL; AND CAPT. JOHN D. BEECHER, U.S. NAVY, PROJECT MANAGER, GUIDED MISSILE FRIGATE PROJECT**

Secretary CLAYTOR. Thank you, Mr. Chairman.

I am very pleased to appear before you today to discuss Navy shipbuilding, specifically the areas you have suggested for today's hearing: the settlement of the Newport News claims and the FFG-7 frigate program.

I would like to submit my prepared statement for the record and summarize it briefly.

Senator PROXMIRE. Very good. We are happy to do that. We will have the entire statement put in the record in full.

Secretary CLAYTOR. I also would like to mention that I have here Assistant Secretary Hidalgo on my right and Mr. Togo West on my left who was the general counsel during the shipbuilding claims negotiations and Captain Beecher of the FFG program office.

Before turning first to the Newport News settlement, Mr. Chairman, I do feel that I will live up to your description of me as being at least frank by saying that I think I very respectfully disagree with you almost completely on almost everything you said on the FFG program and I would like to go into some of the reasons I do so.

First, the Newport News settlement. The Newport News agreement reached on October 5, 1978, represents the final settlement of the large

shipbuilding claims backlog of over \$2.7 billion arising out of shipbuilding contracts entered into under procurement policies and practices of the 1960's and early 1970's. The largest aspect of the Newport News settlement was the resolution of \$742 million in claims arising out of five contracts made from 1969 through 1971 for 12 nuclear powered warships including two aircraft carriers, 3 guided missile cruisers and 7 attack submarines.

The claims alleged Navy responsibility for added costs and delays in the construction of the ships. Two years of painstaking analysis and audit of the claims, conducted by the Navy Claims Settlement Board headed by Rear Adm. F. F. Manganaro, resulted in an evaluation of approximately \$142 million. In addition to settlement of these claims on the basis of this evaluation by the Board, the agreement included two limited actions under Public Law 85-804.

First, a reformation of the CVN 68-69 carrier contract in response to a written request by Newport News under Public Law 85-804 based upon a mutual mistake in connection with the reimbursement of fringe benefits admittedly paid by the contractor. The Navy Contract Adjustment Board reviewed the contractor's request and concluded that a mistake had in fact occurred and recommended payment to Newport News of \$13.2 million, a recommendation adopted by Assistant Secretary Hidalgo.

Second, Assistant Secretary Hidalgo authorized an increase in the claim settlement under each of the four contracts for the nuclear attack submarines, the guided missile cruisers and the nuclear aircraft carriers by \$2.5 million as additional relief under Public Law 85-804 in view of the comprehensive releases to be given by Newport News beyond the dates of claims submission—1975-76—and up to the date of the settlement agreement itself as well as the various other significant elements of the overall settlement of open issues. The total amount of ceiling price adjustments, including the limited Public Law 85-804 relief, is \$165.1 million.

As I have stated on other occasions, our approach to the shipbuilding problems and our negotiations with the shipbuilders have systematically proceeded on the principle that it was not enough merely to settle the outstanding claims. All existing elements of disagreement and controversy had to be eradicated. The settlements with Litton and General Dynamics, as to which we testified before this subcommittee in September of this year, resolved not merely the claims but also numerous outstanding issues and the serious backlog of unpriced change orders. The result was to establish a new environment and a baseline from which to work in the future in order to concentrate on the fundamental objective of constructing essential combatant ships. In my opinion the settlement is very fair to all the parties and very much in the Government's interests.

Now these negotiations, in addition to resolving the claims and other open issues, resulted in the formalization of the contract for the third Nimitz class carrier, the U.S.S. *Carl Vinson* (CVN-70). This ship was being constructed under an option, undefinitized as to price, exercised by the Navy in April of 1974. Newport News had, in the intervening years, been receiving reimbursement of costs and a profit thereon.

As late as January 1978 Newport News had submitted 28 proposed clauses, deemed objectionable by the Navy, which Newport News demanded be incorporated in any contract definitization. In midsummer, however, as an integral part of the effort to resolve the overall controversies, these demands were withdrawn. The agreed upon contract was essentially patterned on the terms and conditions of the fourth flight SSN-688 contract awarded in September 1977.

The settlement resolved all open issues between the Navy and Newport News on all 12 ships on which claims had been submitted. This included the pricing of hundreds of contract changes which had been pending for several years. The sole exception to this sweep up of all pending contracts was the CGN-41 which was the subject matter of a 1976 settlement initiative and which is currently in litigation under the direction of the Department of Justice.

Mr. Chairman, I would like to submit the memorandum of decision of Tenneco, Inc., of October 5, 1978, on the Newport News claims settlement with attachments.

Senator PROXMIRE. We are happy to have that.

[The memorandum of decision, together with the attachments referred to, follows:]

MEMORANDUM OF DECISION OF TENNECO, INC., TO NEWPORT NEWS SHIPBUILDING AND DRYDOCK CO., NEWPORT NEWS

INTRODUCTION

Over an extended period, representatives of the Navy and Newport News (a division of Tenneco, Incorporated) have been seeking resolution of the shipbuilding claims and other open issues (including the formalization of the CVN-70 contract) which have accumulated over the years and which threaten to consume the resources of both parties in years of costly litigation. The outstanding claims currently filed against the Navy by Newport News (approximately \$750 million) embrace contracts for the Navy's most advanced nuclear-powered aircraft carriers, guided-missile cruisers and submarines. The magnitude of these claims and the importance of other open issues between the parties have led senior officials of both Newport News and the Navy to exert every effort to arrive at settlements which, in a manner consonant with our national interest, would be mutually acceptable and enable both parties to concentrate on the building of combatant ships which will constitute a major part of our Nation's naval arsenal in the decades ahead.

The negotiations have been diligently pursued for more than ten months and have finally resolved the fundamental disputes which for years have divided the Navy and Newport News. The terms of settlement are set forth in an Aide Memoire included as Attachment (1) to this document. Two elements of the overall settlement are the sole subjects of this Memorandum: (i) the correction of an acknowledged mistake on one contract and (ii) the release of all claims to date on four current contracts, as well as other important elements of the overall settlement of open issues. The settlement of the basic claims has been reached through rigorous analysis by the Naval Claims Settlement Board and neither requires nor employs extraordinary contractual action. Those claims settlements are described in this document solely to provide the context in which these two limited actions under the authority of Public Law 85-804 are being taken.

BACKGROUND

Newport News is the largest shipbuilder in the Free World. It has built combatant Navy vessels for many years, and is the only private shipbuilder that currently has the capability to produce nuclear powered surface ships. It is the only private shipbuilder in the United States capable of building aircraft carriers, whether nuclear or conventionally powered. It is one of two shipbuilders

qualified for the construction of nuclear powered submarines. In view of these unique capabilities, the importance of Newport News to the national defense, to future Navy shipbuilding programs, and to the industrial capabilities of the Nation, is self-evident.

Starting in the late 1960's and early 1970's Newport News was awarded contracts for the construction of several classes of Navy vessels. These included the CGN 36 and 37 (Nuclear-Powered Guided-Missile Cruisers), the CGN 38, 39 and 40 (also Nuclear-Powered Guided-Missile Cruisers), the SSN 686 and 687 (Nuclear-Powered Attack Submarines), the CVN 68 and 69 (Nuclear-Powered Aircraft Carriers), the SSN 688 lead ship (Nuclear-Powered Attack Submarine) and four follow submarines of the SSN 688 class. All of these contracts were fixed-price-incentive contracts, and all of them included pre-set escalation clauses of the type then in use.

The number and complexity of ships ordered from Newport News during this critical period required this shipbuilder to expand its workforce dramatically. Newport News found it impossible to obtain skilled workers in the numbers required and was forced to dilute the skill level of its workforce and to convert competent journeymen into first-line supervisors. The effect of this was to decrease productivity of the yard and to stretch out the building periods of the ships under contract. This loss of productivity and stretch-out occurred during a period of double-digit inflation experienced in the mid-1970's and resulted in a severe financial impact of delay on the shipbuilder.

At the same time, Newport News raised increasingly frequent complaints about Navy actions or inactions at critical stages during design or construction which, it asserted, either delayed or increased the cost of construction and were, therefore, compensable under the terms of its contracts. The effects of many of these events, even when the Navy acknowledged its responsibility and expressed its willingness to adjust the contract accordingly, were often so intertwined with other actions and so slow to reveal the full extent of their consequences that Newport News tended to reserve them for composite claims submission long after the fact. At their peak these contract claims totalled some \$900 million, and have since been the subject of time-consuming Navy analysis and audit to ascertain Government or Contractor responsibility.

These claims submitted by Newport News and the Company's demand for immediate payment have engendered an atmosphere of growing distrust and acrimony between the Navy and the Company. In many respects the actions of both parties have been governed less by a spirit of cooperation leading toward the orderly construction of ships than by an attitude of defensiveness and strife looking only toward the possible effects of their conduct on the litigation they both increasingly viewed as inevitable.

The Company's claim concerning the construction of the CGN 36 and 37 was eventually settled for approximately \$44 million of the claimed amount of \$151 million, leaving a balance of claims outstanding of approximately \$750 million. A contracting officer decision was issued on the claim concerning the construction of the SSN 686 and 687, recognizing Government responsibility for approximately \$3 million of the \$90 million claimed. That decision was appealed to the Armed Services Board of Contract Appeals.

We have now arrived at a point where most of the ships under these contracts have been delivered. All of the cruisers are now in active service. SSN 686, 687, 688 and three of the four follow 688 class ships are with the fleet. The Nuclear-Powered Aircraft Carriers CVN 68 and CVN 69 are deployed. Only the CVN 70, CGN 41 (both of which were added to these contracts through options the validity of which Newport News has challenged in the case of the CGN-41 and was unpriced in the case of the CVN-70) and eight follow-on SSN 688 class vessels not involved in the current claims, remain under construction at Newport News. Yet while the ships have largely left the yard, the claims they generated remain to poison the relationship between the Navy and one of its key shipbuilders.

#### THE CLAIMS SETTLEMENTS

In an effort to centralize the Navy's resources on the enormous task of analyzing Newport News' claims, the Chief of Naval Material in 1976 established the Navy Claims Settlement Board (NCSB) and assigned to it contractual responsibility for their resolution. The conclusions of the NCSB reached after two years of painstaking analysis, constitute the foundation of the overall settlement with Newport News set forth in Attachment (1). Briefly, those conclusions are:

1. The Board has analyzed the \$78.5 million claims submitted on the contract for construction of SSN 688 (N00024-70-C-0269) and has advised that total adjustments to the contract are warranted which, based upon presently estimated final contract costs, will yield Newport News an increase in contract price of approximately \$24.936 million.

2. The Board has analyzed the \$191.6 million claims submitted on the contract for construction of SSN 689, 691, 693 and 695 (N00024-71-C-0270) and has advised that total adjustments to the contract are warranted which, based upon presently estimated final contract costs, will yield Newport News an increase in contract price of approximately \$38.321 million.

3. The Board has analyzed the \$159.8 million claims submitted on the contract for construction of CGN 38, 39 and 40 (N00024-70-C-0252) and has advised that total adjustments to the contract are warranted which, based upon presently estimated final contract costs, will yield Newport News an increase in contract price of approximately \$31.276 million.

4. The Board has analyzed the \$221.3 million claims submitted on the contract for construction of the CVN 68-69 (N00024-67-C-0325) and has advised that total adjustments to the contract are warranted which, based upon presently estimated final contract costs, will yield Newport News an increase in contract price of approximately \$24.527 million.

5. The \$90.4 million in claims on the contract for the construction of the SSN 686-687 (N00024-69-C-0307), presently on appeal in the ASBCA, have been analyzed by the Board and attorneys of the Contract Appeals Division of the Office of the General Counsel, who have advised that total adjustments to the contract are warranted which, based upon final contract costs, will yield Newport News an increase in contract price of approximately \$21.896 million.

#### ACTION UNDER PUBLIC LAW 85-804

Settlement of the foregoing claims on the basis of strict analysis of their "entitlement value" encountered serious difficulties from the very outset of the negotiations in the fall of 1977 and throughout the ensuing ten months of the continuing search for an overall solution with top officials of Tenneco and Newport News. It became abundantly clear that not only the settlement of the claims but also of other critical open issues, including and long undefined contract for the CVN-70, had to be an imperative Navy objective in the ongoing negotiations. A significant additional consideration was that several years of work had been performed by Newport News on four of these contracts since the submission of the claims in 1975 and 1976, leaving open the real prospect, in the vent of continuing controversy, that supplemental claims would be filed covering events from those dates to the present.

I consider it essential that the Company's claims releases on these contracts be current so that the Navy and Newport News may resume the vital business of ship construction in a businesslike atmosphere, free from uncertainty and acrimonious contention. Accordingly, I authorize and direct the contracting officer to increase the claim settlement under each of the following four contracts by \$2.5 million in additional compensation, in view of the Company's release of all claims arising thereunder from events subsequent to the original submission of the claims, notwithstanding that such events have not been fully identified or analyzed. I have also taken into account the various important elements of the overall settlement of open issues, referred to in this Memorandum and in Attachment 1. The four affected contracts are as follows:

- SSN 688 (N00024-70-C-0269)
- SSN 689, 691, 693 and 695 (N00024-71-C-0270)
- CGN 38, 39 and 40 (N00024-70-C-0252)
- CVN 68-69 (N00024-67-C-0325)

I consider the foregoing action essential to the resumption of a normal relationship with Newport News, and hereby determine pursuant to the residual powers granted me under Public Law 85-804 that such action will facilitate the national defense.

#### CONTRACT MISTAKE

During the long course of their discussions the parties identified one matter in the nature of contract mistake which was beyond the authority of the contracting officer to address. This issue was accordingly severed from the remainder of the claims and submitted to the Navy Contract Adjustment Board pursuant to the

established Armed Services Procurement Regulation (now Defense Acquisition Regulation) Section 17 procedures for handling and correcting contract mistakes. Because of the unusually high dollar value of this matter and to preserve the Contract Adjustment Board's impartiality in a case whose resolution was necessarily to become a part of the Navy's overall settlement of disputes with Newport News, I requested the Board to perform its usual analysis of the case but to forward its findings of fact and recommendations to me for final action under Public Law 85-804. The Board has done so, having reviewed voluminous records submitted by the contractor and the Naval Sea Systems Command, and having heard the testimony of numerous persons who had a part in the contract negotiation in question. The Board's report to me is incorporated as Attachment (2) hereto, and is summarized below.

On September 14, 1970, Contract N00024-67-C-0325 was amended by Modification PZ0041 from a cost reimbursement letter contract to a fixed-price incentive contract for the design and construction of the nuclear aircraft carriers *Nimitz* and *Eisenhower* (CVN 68 and 69). Included in the modification was a contract provision, Article 9(h), which provides for reimbursement without profit, outside the incentive matrix, of employee fringe benefit costs incurred by Newport News. The clauses also included a ceiling provision as follows:

"Notwithstanding the provisions of subparagraph 9 of this [Article 9(h)], the hourly employee benefit rate on which escalation adjustments shall be paid shall not exceed \$1.25 per direct labor hour charged to all product lines for sales to customers and to Plant Under Construction accounts."

The effect of this limitation, as interpreted by the Navy, has been to preclude Newport News from recovering approximately \$17.8 million in booked costs as a consequence of the \$1.25 ceiling. In its request for relief Newport News urges that both parties relied upon erroneous factual data in arriving at this ceiling rate calculation, and that the contract should be modified to reflect as nearly as possible what would have been the intention of the parties, had the correct data been before them at the time of their negotiations.

All documentary material which might have a bearing on this question has been carefully reviewed by the Contract Adjustment Board. This material unquestionably establishes that the factual basis for the parties' ceiling calculation was erroneous. Upon referral by the Naval Sea Systems Command, the Board has found that a mutual mistake of fact clearly underlay the parties' negotiation of an appropriate fringe benefit escalation clause for the contract. The record shows that contract Article 9(h) was to serve two purposes: principally, to provide a mechanism for recovery of reasonable fringe benefit costs, and secondarily to provide, through the ceiling limitation, an incentive for the Contractor to control fringe benefit costs.

Eight years have passed since the negotiations in question. There is no evidence that Newport News has acted unreasonably in administering its fringe benefit costs, bearing in mind that its recovery of any costs over that ceiling was always in doubt. The CVN 68 and 69 are deployed with the fleet.

With the aim of arriving at a result which provides an equitable resolution within the framework of the original intentions of both parties in their negotiations, the Board has recommended adjusting the erroneous figure utilized in Article 9(h) from \$1.25 to \$1.65. I consider this to be a reasonable conclusion of a longstanding issue and adopt the Board's recommendation.

Accordingly, in full settlement of that issue and pursuant to my residual powers under Public Law 85-804, I hereby authorize and direct the contracting officer to amend Contract N00024-67-C-0325 by deleting the figure of \$1.25 and substituting \$1.65, thus providing Newport News approximately \$13.2 million in additional compensation thereunder. I find that this action will facilitate the national defense.

\* \* \* \* \*

The foregoing two determinations under Public Law 85-804 are subject to the availability of appropriations, and are contingent upon and shall be effective only upon final execution of the various settlement actions set forth in Attachment (1). The contract amendments implementing the foregoing determinations shall comply with all ASPR (DAR) Section XVII requirements and shall contain releases in a form satisfactory to the contracting officer. In no event shall these determinations be construed as authorizing, nor do they authorize, an aggregate increase of the Government's obligations under those five contracts in excess of \$25 million.

## ATTACHMENT 1

## AIDE MEMOIRE

The sole purpose of initialing this document is to record the basic elements of understanding we have reached after long negotiation with respect to claims and other open issues involving contracts for the construction of ships between the Department of Navy and Tenneco/Newport News Shipbuilding and Dry Dock Company (hereinafter Newport News). With the aim of resolving all pending matters, it is our intention to take the following steps:

1. The Navy Claims Settlement Board (the "Board") has analyzed the \$78.5 million claims submitted on the contract for construction of SSN-688 (N00024-70-C-0269) and has advised that total adjustments to the contract are warranted, which based on presently estimated final costs on said contract, will yield Newport News an increase in price of approximately \$24.936 million on said contract. Newport News will accept said adjustments as full compensation for its claims on this contract.

2. The Board has analyzed the \$191.6 million claims submitted on the contract for construction of SSN 689, 691, 693 and 695 (N00024-71C-0270) and has advised that total adjustments to the contract are warranted, which, based on presently estimated final costs on said contract, will yield Newport News an increase in price of approximately \$38.321 million on said contract. Newport News will accept said adjustments as full compensation for its claims on this contract.

3. The Board has analyzed the \$159.8 million claims submitted on the contract for construction of CGN 38, 39 and 40 (N00024-70-C-0252) and has advised that total adjustments to the contract are warranted, which, based on presently estimated final costs on said contract, will yield Newport News an increase in price of approximately \$31.276 million on said contract. Newport News will accept said adjustments as full compensation for its claims on this contract.

4. The Board has analyzed the \$221.3 million claims submitted on the contract for construction of the CVN 68-69 (N00024-67-C-0325) and has advised that total adjustments to the contract are warranted, which, based on presently estimated final costs on said contract, will yield Newport News an increase in price of approximately \$24.527 million on said contract. Newport News will accept said adjustments as full compensation for its claims on this contract.

5. The \$90.4 million in claims of Newport News on the contract for SSN 686-687 (N00024-69-C-307) presently on appeal in the ASBCA have been analyzed by the Board and attorneys of the Contract Appeals Division and they have advised that total adjustments to the contract are warranted, which, based on final costs of said contract, will yield Newport News an increase in price of approximately \$21.896 million on said contract. Newport News accepts said adjustments as full compensation for its claims on this contract and will withdraw such appeal with prejudice.

6. Newport News will fully release, in a form satisfactory to the Navy, all claims based upon events, occurring on or prior to the date of the definitive documents to be executed by the parties in implementation of this Aide Memoire arising under any of the contracts listed in paragraphs 1 through 5 (and the one for the CGN 36-37), as well as the impact of any of these contracts on each other or on any other shipbuilding contract between the Navy and Newport News, or between Newport News and any other person or entity. Newport News will not contest in any forum the validity and enforceability of said contracts based upon events on or prior to the aforesaid date. Nothing contained in the aforesaid release or in this Aide Memoire, however, shall be deemed to be a waiver of the rights of the parties pertaining to the construction of the CGN-41.

7. Newport News has submitted a request for reformation of the contract for CVN 68-69 (N00024-67-C-0325) under Public Law 85-804 on the basis of mutual mistake regarding the fringe benefits clause in said contract. The Navy Contract Adjustment Board has examined the request and has found that a mutual mistake of fact occurred. In the exercise of the Secretarial discretion vested by Public Law 85-804, the Assistant Secretary of the Navy (M,RA&L) will accept the Board's findings and recommendations, and under the residual powers of that Act will direct reformation of that contract by correcting the ceiling from \$1.25 to \$1.65, thus increasing the Government's obligation by approximately \$13.2M. Newport News will accept said adjustment as a fair and equitable reformation of the contract.

8. In the further exercise of the Secretarial discretion vested by Public Law 85-804, the Assistant Secretary of the Navy (M,RA&L) will, under the residual powers of that Act, authorize and direct the contracting officer to increase the claim settlement under each of the following four contracts by \$2.5 million in additional compensation, in view of the release to be given by Newport News, as provided in paragraph 6, and various other elements of the overall settlement of open issues contemplated by this Aide Memoire. The four affected contracts are as follows:

SSN 688 (N00024-70-C-0269)  
 SSN 689, 691, 693 and 695 (N00024-71-C-0270)  
 CGN 38, 39 and 40 (N00024-70C-0252)  
 CVN 68-69 (N00024-67-C-0325)

9. It is understood that the timing of the payments to be made by the Navy to Newport News pursuant to paragraphs 1 to 5, inclusive, 7 and 8, shall be governed by the provisions of the existing respective contracts, adjusted in accordance with the terms of this Aide Memoire.

10. Representatives of the Navy and Newport News shall with urgency agree upon the aggregate price (at ceiling and including applicable fee) of the unadjudicated changes on the contracts referred to in paragraphs 1 through 5, inclusive, to a date the nearest possible to the one of this Aide Memoire. It is our intention and an important element of the understandings set forth in this Aide Memoire that this matter shall be settled and agreed upon not later than the date of execution of the contract modifications to be signed in implementation of this Aide Memoire. With equal urgency and simultaneously with the aforesaid contract changes, the parties shall determine and agree upon the unresolved obligations of Newport News pertaining to Insurv and guarantee items, material shortages and other related items which, according to current Navy estimates, have an approximate value of \$2.0 million, it being understood that the agreed upon value shall not be withheld by the Navy from agreed value of the aforesaid contract changes or otherwise, without prejudice however to the unconditional obligation assumed by Newport News of discharging such obligations in a timely and efficient manner.

11. We have further agreed that the quantum of disallowed costs under the contracts referred to in paragraphs 1 through 5, inclusive, to the date of this Aide Memoire will be approximately \$19.4516 million, with the understanding that this figure takes into account the allowance of approximately \$1.0196 million of home office expenses (out of a total of home office expenses of approximately \$8.6093 million) and also the allowance of certain disputed pension fund costs only with respect to the contract referred to in paragraph 4, *supra* (approximately \$2.4884 million), but that such pension fund costs will be disallowed and released by Newport News with respect to the other contracts referred to in paragraph 1, 2, 3 and 5, *supra*. State tax accruals now disallowed, will be allowable as costs when actually paid by Newport News.

12. As a result of recent steps taken by representatives of the Navy and Newport News, the contract terms and conditions for the CVN-70 have been substantially settled and it is understood that, as an integral part of the implementation of the several understandings set forth herein, the parties shall execute a definitive contract on such terms and conditions.

13. Newport News will withdraw with prejudice ASBCA Docket No. 21728 and release the Navy from all further claims concerning the allowability of home office expenses which are the subject of said proceeding.

14. To contribute to the orderly management of contracts between Newport News and the Navy both parties will take all steps necessary promptly to process and negotiate, on a fully priced basis, all contract change proposals, without reservation for delay and disruption, subsequent to the date of this document.

15. All of the steps to be undertaken by the Navy are subject to the availability of appropriations.

\* \* \* \* \*

This will confirm our commitment from the outset of our discussions of this matter that the rights of the parties shall in no way be prejudiced or altered by the understandings and intentions set forth herein but that such rights shall be governed only by the documents to be subsequently executed by both parties in the implementation of these understandings. Thus, this document merely sets forth the understandings and declarations of intention which are the outcome of



their lengthy discussions and which both parties expect will lead to prompt and final resolution of the matters described herein. As such, it is agreed that this document is privileged and not subject to publication, discovery or to voluntary production by either party before any court or in any other forum.

#### ADDENDUM TO AIDE MEMOIRE

By way of clarification, it is recognized that:

A. The \$24.936 million in paragraph 1 represents an increase in the ceiling price of \$18.701 million and a separate payment of \$6.235 million.

B. The \$38.321 million in paragraph 2 represents an increase in the ceiling price of \$31.451 million and a separate payment of \$6.870 million.

C. The \$31.276 million in paragraph 3 represents an increase in the ceiling price of \$13.897 million and a separate payment of \$17.379 million.

D. The \$24.527 million in paragraph 4 represents an increase in the ceiling price of \$12.950 million and a separate payment of \$11.577 million.

E. \$21.896 million in paragraph 5 represents an increase in the ceiling price of \$9.386 million and a separate payment of \$12.510 million.

F. The figures above are precise and will not vary with negotiated final costs.

G. The parties will negotiate settlement modifications (including releases) under these contracts similar to the release negotiated with the Navy in the DLGN 36 and 37 settlement, and Newport News will also release the impact of these contracts on other contracts.

All rights of the parties regarding DLGN 41 will remain unaffected, and the rights of the parties regarding CVN 70 shall be covered exclusively by the defintized contract to be executed.

H. The reformation referred to in paragraph 7 will result in an additional escalation payment to Newport News in the amount of \$13.2 million.

I. The payments in paragraph 8 are additional payments, separate from any other payments under the contracts.

J. It is the intent of the parties that the implementing contract modifications will close out contracts (SSN-688) N00024-70-0269 and (SSN 686-687) N00024-69-C-307 and will reach final negotiated prices for contracts (CGN 38, 39 and 40) N00024-70-0252 and (CVN 68-69) N00024-67-C-0235 and on contract (SSN 689, 691, 693 and 695) N00024-71-C-0270 as specified by the contracts.

K. With respect to paragraph 10, pricing of changes (including related escalation) is conditioned upon mutual agreement, and covers all changes as of September 5, 1978. In order to delimit the unresolved obligations of Newport News, the Company's responsibility for guarantee deficiencies, Insurv items, furnishing of undelivered materials/software and resolution of other related items will be specifically defined and agreed to as of the date of the implementing modifications. Government retentions for guarantee deficiency items will be released.

L. With regard to state tax accruals, it is agreed that state taxes are allowable costs and agreements on the timing of the allowability will be reached between the Company and the contracting officer and specified in the settlement modification and the estimated disallowances will be issued accordingly.

M. The Navy agrees that the allowability of Home Office Expense (i) for the year 1972 and forward for these contracts shall be in accordance with CAS 403 and (ii) shall be as allowed by DCAA for the years prior to 1972. Hence, Newport News will withdraw the ASBCA appeal referred to in paragraph 13.

N. With regard to the last unnumbered paragraph of the Aide Memoire and, indeed, this entire agreement, this document is tentative only and is conditioned upon implementation by means of contract modification acceptable to both parties.

#### ATTACHMENT 2

DEPARTMENT OF THE NAVY,  
HEADQUARTERS NAVAL MATERIAL COMMAND,  
Washington, D.C., August 15, 1978.

MEMORANDUM FOR THE ASSISTANT SECRETARY OF THE NAVY (MANPOWER, RESERVE AFFAIRS AND LOGISTICS)

Subject: Newport News Shipbuilding and Dry Dock Company; Request for Correction of a Mistake Under Public Law 85-804; Contract N00024-67-C-0325.

1. *Introduction.*—Pursuant to your request, I am submitting herewith the findings of fact and recommendations of the Navy Contract Adjustment Board with respect to the above-entitled matter. These findings and recommendations, which address whether a unilateral or a mutual mistake of fact was made, are based

upon the record submitted to the Board by the Naval Sea Systems Command (NAVSEA). The Board also took into account discussions it conducted with the Contracting Officer, the former Project Manager, representatives of DCAA, Newport News, and others. Eight years have passed since these events occurred. In many respects, the written record is sketchy and the recollections of those who played a role in the formation of the contract were sometimes vague. The Board does not believe, therefore, that it is possible to ascertain with precision the intention of the parties at the time of their agreement, and for that reason, the Board was conservative in its approach. The Board does, however, feel confident that reformation of the contract on the basis of mistake is warranted.

2. *Facts.*—By letter dated May 17, 1978, Newport News Shipbuilding and Dry Dock Company (NNS), Newport News, Virginia, has requested an increase in the price of subject contract pursuant to Public Law 85-804 and ASPR (DAR) 17-204.3 to correct a mistake made in Article 9(h) of modification PZ0041 to that instrument. Article 9(h) is reproduced in Enclosure (1). NAVSEA, in its report to the Board setting forth the facts in the matter, has expressed the opinion that a mutual mistake may have been made since "[t]he pertinent contract clause, as interpreted by the Navy, failed to accomplish the intent of the parties." While it is presented upon alternative bases of unilateral and mutual mistake, the gravamen of the contractor's request and the accompanying favorable NAVSEA recommendation is that subparagraph 10 of Article 9(h) of the contract failed to reflect the intent of the parties in that they both relied upon erroneous information in negotiating the amount of an escalation adjustment permitted thereunder to compensate for increases in the cost of employee fringe benefits.

3. On March 18, 1970, NNS submitted its updated proposal for definitizing the letter contract for the USS *Nimitz* at a target cost of approximately \$335.9 million. The parties had been exchanging information for approximately a year. At that time, the proposed target cost contained overhead contingencies for expected increases in NNS's employee benefit costs above those in effect for a base period, established as the month of June 1967. Formal price negotiations commenced on May 20, 1970. During negotiations, it was apparently suggested that an additional special escalation provision be drafted to eliminate the need to include projected overhead increases for employee fringe benefits as a contingency within the target cost. By letter of May 26, 1970, NNS provided a draft escalation provision which later became subparagraphs 1 through 9 of contract Article 9(h). It does not appear that there was any discussion at that time of placing a limitation on the amounts of fringe benefits reimbursable under the contract, nor did the special escalation provision as tendered by NNS contain any such limitation. The underlying purpose of the fringe benefit escalation provision is reflected by what became the preamble to Article 9(h) itself:

"It is recognized that the contractor may during the term of this contract make changes in the scope and types of employee benefit programs, such changes becoming necessary as a result of agreements with union eligible employees or desirable to maintain the ability to hire and to retain good employees. The amounts of such changes and their effects upon this contract being indefinite, it is agreed the effects of such changes since June 1967 below the limitations set forth in subparagraph 10 herein are not included in the target cost set forth in article 7, entitled "Compensation," of these special provisions but shall be reimbursed separately [outside the incentive matrix and without profit] as an escalation payment determined as follows: "

4. As a result of these discussions with respect to pricing fringe benefit escalation, NNS reduced its target cost by approximately \$11.9 million to a new target cost of \$324 million. Thereafter, on June 25, 1970, negotiations were expanded to include the *Eisenhower* and NNS proposed a two-vessel target cost of \$70 million on the same terms and conditions as were stated under its earlier *Nimitz* proposal, including the escalation adjustment provision for employee fringe benefits. The Board is advised that the two vessel target cost also reflected separate treatment of fringe benefit costs.<sup>1</sup> Navy representatives tentatively agreed to the two ship target cost figure and subsequent meetings were held to resolve all remaining

<sup>1</sup> A representative of DCAA, Newport News stated to the Board that he believed the target cost for the two ship proposal reflected approximately a \$18 million reduction. NNS has booked \$59,221,468 and received \$40,374,479 under the terms of the contract. However, there is no evidence that NNS has granted unreasonable increases in employee fringe benefits and comparison with fringe benefits offered by other shipyards indicates that NNS was consistent with industry practice.

matters, one of which was to reach final agreement on Article 9(h) of the contract. NNS executed the modification on June 30, 1970.

5. The backdrop of the Navy's desire to include a ceiling provision limiting reimbursement of fringe benefit costs may be a June 11, 1970, Defense Contract Audit Agency (DCAA) report which stated, *inter alia*:

"The current proposal to include them [fringe benefit costs] under a special escalation clause, in effect, places these fringe benefits under a separate cost-type contract. There would be very little or no contractual incentive for the contractor to control future fringe benefit costs. Even if there are other factors acting to restrain the contractor in granting fringe benefits, the proposed special escalation computations would set a potentially dangerous precedent for future Navy contracts."

Based at least in part on DCAA's objections, the previously proposed NNS clause was modified by the addition of a separate paragraph 10 (set forth in full below) which provides a \$1.25 limitation on the amount of reimbursement under the special fringe benefit escalation provision.

6. On September 14, 1970, contract N00024-67-C-0325 was amended by modification PZ0041 from a cost-reimbursement letter contract to a fixed-price incentive contract for the design and construction of both the USS *Nimitz* (CVN 68) and the USS *Eisenhower* (CVN 69) and included Article 9(h) as finally negotiated. As previously stated, this modification had been executed by Newport News on June 30, 1970, some forty days after final negotiations had commenced.

7. Article 9(h) describes the method to be used for determining quarterly escalation adjustments for employee fringe benefit programs. In short, the base month (June 1967) hourly rate of employee benefits is subtracted from the current quarter's hourly rate of employee benefits, and the difference is then multiplied by the actual direct labor hours of work on each vessel during that current quarter. It is this product that constitutes the quarterly escalation adjustment for each vessel.<sup>2</sup> However, subparagraph 10 of the clause immediately thereafter states:

Notwithstanding the provisions of subparagraph 9 of this [Article 9(h)], the *hourly employee benefit rate on which escalation adjustments shall be paid shall not exceed \$1.25 per direct labor hour charged to all product lines for sales to customers and to Plant Under Construction accounts.*" [Italic supplied.]

It is this provision which has been the core of the parties' disagreement since October 1970.

8. In order to determine whether the \$1.25 ceiling provision truly reflected the intent of the parties, the Board has carefully examined the documentary material of record supporting the negotiations of the provision in question. The record indicates that on June 5, 1970, a NNS employee, Mr. A. R. Myers, prepared a spread-sheet document, entitled "Computation of Projected Escalation of Payroll Fringe Benefits on *Nimitz* (Basis of Target Estimate)" (hereafter the "Myers spread-sheet"). This document supported an approximate \$11.4 million reduction in *Nimitz*' target cost and became the basis for negotiation of the \$1.25 ceiling provision set forth in subparagraph 10 of Article 9(h). This is confirmed by a second contemporaneous document dated June 15, 1970, authored by another NNS official, Mr. C. E. Dart (hereafter the "Dart work-sheet"). The Dart work-sheet reflects that an approximate \$11.5 million reduction in overhead was calculated by NNS on the basis of Myers' June 5 calculations. The Myers spread-sheet reflected a constant employee benefit rate of \$1.09 for calendar years 1770 through 1973.<sup>3</sup> Meanwhile, on June 10, 1979, still a third contempo-

<sup>2</sup> The Board was unable to determine why the parties agreed to a quarterly vice annual limitation. The fringe benefit rate would fluctuate from a high in the first and second calendar quarters to a low in the third and fourth quarters due to FICA limitations. It may possibly be due to the fact that Article 9(h) is but one paragraph of the "Compensation Adjustments" clause. The remainder of the clause operates independently of actual costs.

<sup>3</sup> The Board noted that there had been an historical and annual rise in the employee benefit rate from 1967 on forward, a fact known (though not fully) to NNS at the time of negotiations. It was therefore puzzled by the fact that NNS projected a flat rate of \$1.09 through the life of the contract. A possible explanation for this, and one offered by a representative of DCAA was that NNS expected a substantive increase in production labor which would have had the effect of flattening the rate. NNS, however, reportedly experienced great difficulty in hiring and retaining skilled labor while performing the contract. This would have had the effect of driving up the fringe benefit rate. Pure mathematical calculations using the true historical rates and trends through March 1970 yielded a projected rate of over \$4.00 during the then projected period of contract performance. These calculations, of course, do not take into account the labor sensitivity of the rate.

aneous document was constructed by NNS' Mr. C. T. Dickerson entitled "Increase by Quarters in Fringe Benefits Over 1967 (1967 Base Values from A. R. Myers Analysis)" (hereafter the "Dickerson spread-sheet"). Significantly, but apparently unknown and certainly not relied upon by the parties during negotiation of the \$1.25 ceiling figure, the Dickerson spread-sheet reflected a much greater employee benefit rate for the first quarter of 1970—\$1.35—a figure later adjusted to \$1.29.<sup>4</sup>

9. Subsequently, the negotiator's post-negotiation clearance of July 9, 1970, indicated the parties' reliance on the accuracy of what they both believed to be a projected 1970 fringe benefit rate of \$1.09. It stated that:

"The auditor *verified*<sup>5</sup> that since June 1967 the fringe benefit cost per man hour increased from \$0.735<sup>6</sup> to \$1.093 in 1970. This is an increase of \$0.358 per man hour in three years. The fringe benefit escalation language provides a ceiling of \$1.25 per man hour or an additional \$0.157 per man hour over the next five years to limit the liability of the Government." [Italic supplied.]

10. *Discussion.*—It is clear from the record before the Board that the parties mistakenly negotiated the \$1.25 fringe benefit limitation upon the erroneous belief that the experienced rate for the first quarter of 1970 was \$1.09. It was not. Indeed, it is now known that three months *prior* to the effective date of the contract the actual rate exceeded the \$1.25 ceiling by four cents. Had the parties at the time of negotiations known that the Myers spread-sheet was so grossly in error, it is beyond reasonable doubt that they would never have agreed to the \$1.25 limitation on reimbursement for employee fringe benefit costs.<sup>7</sup> To have done so would come \* \* \* close to being a contract which no man in his senses, not under delusion, would make \* \* \* on the one hand, and as no honest and fair man would accept \* \* \* on the other' \* \* \* *Hume v. U.S.*, 132 U.S. 393, 395 (1889). Accordingly, the Board believes that a mutual mistake was made as to a material fact existing at the time contract modification PZ0041 was executed.

11. As to determining what the parties would have agreed to but for their mutual reliance upon the foregoing mistake of fact, NNS urges, as it has since this issue first arose, that the \* \* \* \$1.25 amount was a limitation on the amount of adjustment, i.e., the difference between the base and the total fringe benefit

<sup>4</sup> There may have been considerable pressure upon the parties to reach final agreement. This is borne out by a memorandum dated May 20, 1970, the very day that final price negotiations were commencing. This memorandum, written by a highly respected senior NAVSHIPS official, relates with evident frustration his attempts to convey the urgency of concluding negotiations. He states:

"(c) That negotiations for the *Nimitz* have already been postponed time and time again and that they are continuing to be delayed for no good purpose.

"(d) That continued delay in these negotiations can be expected to lead to higher actual cost of the ship since the provisions of the definitized contract will not be placed in force until the contract be signed.

"(e) That the continued delay in completion negotiations for the *Nimitz* is a matter of embarrassment to the Chief of Naval Operations, the Secretary of the Navy, the Deputy Secretary of Defense and the Secretary of Defense.

"(f) That leaders of the Senate Armed Services and Appropriations Committees have raised issues with Defense officials concerning the status of negotiations.

"(g) That the Navy is in the embarrassing position of not being able to report the results of the negotiations in the March 31 SAR report. The December SAR report had predicted the negotiations would be completed by this time."

By contrast, this same memorandum describes the painstaking manner by which the Navy and Newport News had constructed their respective ingoing positions. (The proposals and negotiations regarding the *Eisenhower* and fringe benefit escalations were yet to occur.)

<sup>5</sup> Testimony adduced before this Board by a representative of the DCAA Resident Auditor, Newport News, indicates the figures had not been audited at that time (July 1970).

<sup>6</sup> The June 1967 base month was later determined to be \$0.694, possibly compounding the error.

<sup>7</sup> While it is clear the parties intended to agree to some ceiling limitation, it is also clear that the parties anticipated the clause would permit recovery of reasonable fringe benefit costs. This is borne out by the statements of those interviewed, as well as by a memorandum prepared by the former project manager and approved by the Commander, NAVSHIPS in May 1970. This document reads in part:

"Topic.—Establishing Base Month of June 1967 for purposes of pricing out CVAN-68.

"Fact.—Increase in cost due to inflation is not an increase resulting from poor ship-building management. It is a result of operation of the economy of the country and is completely independent of the manpower, material, and time resources required to build a ship or the management of these resources.

"The effect of inflation is independent of any technical or characteristics changes which may be introduced into the ships after contracting.

"In order to provide for full recovery of growth the escalation clause will contain adjustment factors for the BLS index movements and the Contractor's experienced variation with the BLS index movements as well as the inflationary effect of fringe benefits on overhead rate." [Italic supplied]

amount, and was not a limitation on the total amount of the fringe benefit reimbursement.<sup>8</sup>

In its May 17, 1978 application for relief NNS has also proffered the alternative explanation that: \* \* \* the \$1.25 limitation may apply neither to the *total amount* nor to the *difference*, but rather to the *base* upon which escalation is to be added.

NNS continues by theorizing that if there were no effective ceiling on these escalation payments the company would be entitled to approximately \$19,028,283 in additional reimbursement under the contract.

12. The Board considers both of these propositions to be without merit and in direct conflict with the plain language and operation of the contract provision in question.<sup>9</sup> Two key Navy representatives present at the negotiations recalled the intent of the mistakenly-developed \$1.25 figure was to place a limitation on the rate on which quarterly adjustments would be paid. The purpose of the ceiling provision was said to provide a contractual incentive for NNS to control fringe benefit costs. This would be consistent with the DCAA recommendation quoted earlier that there was a need to contractually control future fringe benefit costs. As indicated previously, both parties relied upon the Myers spread-sheet in negotiating the \$1.25 limitation. This document indicates that the rate for 1968 was \$0.76 and the rate for 1969 was \$0.93 while the rate predicted for 1970 through 1973 was \$1.09. One of the Navy representatives who participated in the negotiations stated the \$1.25 figure was probably established, at least in part,<sup>10</sup> by adding \$0.16 to the NNS predicted rate of \$1.09, which was equal to the previous increase between \$0.93 and \$1.09 found in the Myers spread-sheet.

13. Since, in fact, the actual adjusted rate for the first quarter of 1970 was \$1.29,<sup>11</sup> the Board believes it appropriate to adopt the same methodology which may have been used by the parties in 1970 to establish an adjusted ceiling provision which will now correct the effect of their mistake. In the Board's view, the record affords no better basis for carrying out the parties' apparent intent.<sup>12</sup> Thus, by applying the method of calculation apparently used in 1970, we conclude that the ceiling provision would probably have been \$1.65 but for the parties' mistaken reliance upon the accuracy of the first quarter rate of \$1.09.<sup>13</sup>

G. R. HENRY,  
 Captain, SC, USN,  
 Chairman, Navy Contract Adjustment Board.

Enclosure.

<sup>8</sup> On October 1, 1970, NNS submitted its first invoice seeking reimbursement for costs of employee fringe benefits of \$3,359,061 through September 1970. The Board has taken note of the fact the NNS calculations did not reflect recognition of the \$1.25 ceiling contained in Article 9 (h) of the contract.

<sup>9</sup> We cannot help but question the seriousness of NNS's eleventh-hour interpretation when, concededly, there is no company representative who has more than the vaguest recollection of this negotiation in 1970. An internal memorandum dated July 23, 1975 (furnished to the Navy on July 30, 1975), from NNS's corporate legal department states:

"The specific intent of the negotiators for application of the limitation is difficult to reconstruct as there is no one in the company who remembers any discussion of the specific application."

Moreover, NNS has not represented otherwise in its May 17, 1978 application or in any other documentation before this Board.

<sup>10</sup> This same person also stated there may have been other considerations which he did not recall in reaching the agreed upon ceiling as well. No one else interviewed had any recollection of how the \$1.25 ceiling was calculated.

<sup>11</sup> While the Dickerson spread-sheet projects a rate of \$1.35, and the actual adjusted rate for June 1970 was \$1.33, the June rate would not have been known until at least mid-July 1970 under normal circumstances, according to DCAA. The Board believes that had the Dickerson projection been proposed, an audit would have been likely, since it represents such a significant increase over the June 1967 base. For this reason, the March 1970 rate of \$1.29, which DCAA states would have been available, is recommended as the base point for reformation of the clause. This quarter's rate, though in error, was also the one apparently selected by NNS.

<sup>12</sup> Because eight years have passed since the negotiations of Article 9(h), much of the oral evidence presented to the Board has been vague. Given this confused record, the Board attempted to reconstruct the intent of the parties insofar as it now can be ascertained, while at the same time applying general principles of equity in search of a result that would be fair to both parties. The Board cannot be certain, of course, that the parties would have used this methodology had the true historical rates been known.

<sup>13</sup> The difference between the 1969 rate of \$0.93 and the actual adjusted rate of \$1.29 for the first quarter of 1970 is \$0.36. The recommended ceiling figure is derived by adding \$0.36 to \$1.29 for a corrected ceiling rate of \$1.65. This would increase the Government's obligation under the contract by approximately \$13,250,156, subject to possible increase upon resolution of certain request for equitable adjustment.

ARTICLE 9(h). ESCALATION ADJUSTMENT FOR CHANGES IN EMPLOYEE BENEFIT PROGRAMS

It is recognized that the contractor may during the term of this contract make changes in the scope and types of employee benefit programs, such changes becoming necessary as a result of agreements with union eligible employees or desirable to maintain the ability to hire and to retain good employees. The amounts of such changes and their effects upon this contract being indefinite, it is agreed the effects of such changes since June 1967 below the limitations set forth in subparagraph 10 herein are not included in the target cost set forth in article 7, entitled "Compensation," of these special provisions but shall be reimbursed separately as an escalation payment determined as follows:

1. The total costs recorded in the contractor's accounts for the below-listed employee benefits during the year 1967 shall be determined.

- a. Allowed time
- b. Vacation and holiday
- c. Sick leave
- d. Workmen's compensation and public liability
- e. F.I.C.A.
- f. Unemployment compensation tax
- g. Disability payments
- h. Group insurance and hospitalization
- i. Pension plan costs
- j. Thrift plans

2. The direct labor hours during the year 1967 charged to all product lines for sales to customers and to plant under construction accounts shall be determined.

3. The average cost of employee benefits per direct labor hour during 1967 shall be determined by dividing total costs in 1 above by direct labor hours in 2 above.

4. At calendar quarter intervals beginning with the calendar quarter ending 31 March 1968, the increased costs of employee benefits allocable to each vessel under this contract shall be determined in accordance with the method described in subparagraphs 5 through 7 below.

5. The total costs recorded during the current calendar quarter period in the contractor's accounts for the employee benefits listed in 1 above plus any additional benefits programs added since 1967 shall be determined. Any adjustments made by the contractor to accrued fringe benefit costs for prior accounting periods shall be included as adjustments of the calendar quarters in which the fringe benefit cost accrual adjustments are recorded in the contractor's accounts.

6. The direct labor hours during the current calendar quarter period charged to all product lines for sales to customers and to plant under construction accounts shall be determined.

7. The average cost of employee benefits per direct labor hour during the current calendar quarter period shall be determined by dividing total costs in 5 above by direct labor hours in 6 above.

8. The average costs per direct labor hour during the 1967 base period, computed in 3 above, shall be deducted from the corresponding average during the current calendar quarter period, computed in 7 above.

9. The quarterly adjustment under this paragraph (h) shall be the product of:

- a. The difference between 3 and 7, computed in 8 above, and
- b. The actual direct labor hours of work on each vessel under this contract during the current calendar quarter period.

Adjustments under this paragraph (h) shall be set forth in a supplemental agreement, which shall constitute the amount of adjustment for each vessel for the quarterly period involved.

10. Notwithstanding the provisions of subparagraph 9 of this paragraph (h), the hourly employee benefit rate on which escalation adjustments shall be paid shall not exceed \$1.25 per direct labor hour charged to all product lines for sales to customers and to Plant Under Construction accounts.

11. No payment shall be made under this paragraph (h) on account of changes in the cost of employee benefit programs listed in subparagraph 1 above to the extent that such changes result from changes in the law subsequent to the date of the signing of this contract, the effect on this contract of such changes being provided for under the article entitled "Equitable Adjustments for Changes in Law Having an Impact on Labor Cost."

THE ASSISTANT SECRETARY OF THE NAVY,  
MANPOWER RESERVE AFFAIRS AND LOGISTICS,  
Washington, D.C., October 5, 1978.

HON. WALTER F. MONDALE,  
President of the Senate,  
Washington, D.C.

DEAR MR. PRESIDENT: The following report is made to advise you of the settlement agreement executed today, settling the outstanding claims against the Navy by Newport News Shipbuilding and Dry Dock Company as well as other open issues.

Newport News Shipbuilding and Dry Dock Company submitted claims in 1975 and 1976 concerning five contracts with the Navy which request increases under the contracts as follows:

	<i>Millions</i>
Contract N00024-70-C-0269 (SSN 688).....	\$78.5
Contract N00024-71-C-0270 (SSN 689, 691, 693, 695).....	191.6
Contract N00024-70-C-0252 (CGN 38, 39, 40).....	159.8
Contract N00024-67-C-0325 (CVN 68, 69).....	221.3
Contract N00024-69-C-0307 (SSN 686, 687).....	90.4

The Navy Claims Settlement Board (NCSB) has thoroughly examined and evaluated these claims and the Navy and the Company have reached settlements on these claims, as well as other outstanding open issues. As a result of the settlement, the following total adjustments to the contracts are being made:

Contract N00024-70-C-0269 (SSN 688).....	\$27,053,867
Contract N00024-71-C-0270 (SSN 689, 691, 693, 695).....	41,662,137
Contract N00024-70-C-0252 (CGN 38, 39, 40).....	34,232,569
Contract N00024-67-C-0325 (CVN 68, 69).....	40,227,000
Contract N00024-69-C-0307 (SSN 686, 687).....	21,898,378

In addition to that portion of these amounts determined valid for payment as a result of the Navy Claims Settlement Board evaluation of the claims, within the terms of the existing contracts, these adjustments included \$2.5 million in additional compensation under Public Law 85-804 on each of the contracts, with the exception of Contract N00024-69-C-0307, in view of the complete release given by the Company and various other elements of the overall settlement of open issues. Contract N00024-67-C-0325 for the CVN 68/69 has also been reformed under Public Law 85-804 by correcting a mutual mistake concerning the fringe benefits clause in said contract. This reformation increases the Government's obligations by approximately \$13.2 million and said amount is reflected in the adjustments stated above.

The entire settlement is subject to the availability of appropriations.

If desired, I am prepared to respond to any questions regarding this determination.

Sincerely,

EDWARD HIDALGO.

THE ASSISTANT SECRETARY OF THE NAVY,  
MANPOWER, RESERVE AFFAIRS AND LOGISTICS,  
Washington, D.C., October 5, 1978.

HON. THOMAS P. O'NEILL, Jr.,  
Speaker of the House of Representatives,  
Washington, D.C.

DEAR MR. SPEAKER: The following report is made to advise you of the settlement agreement executed today, settling the outstanding claims against the Navy by Newport News Shipbuilding and Dry Dock Company as well as other open issues.

Newport News Shipbuilding and Dry Dock Company submitted claims in 1975 and 1976 concerning five contracts with the Navy which request increases in celling prices and in other compensation under the contracts as follows:

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Contract N00024-70-C-0269 (SSN 688)-----	\$27, 053, 867
Contract N00024-71-C-0270 (SNN 689, 691, 693, 695)-----	41, 662, 137
Contract N00024-70-C-0252 (CGN 38, 39, 40)-----	34, 232, 569
Contract N00024-67-C-0325 (CVN 68, 69)-----	40, 227, 000
Contract N00024-69-C-0307 (SSN 686, 687)-----	21, 898, 378

In addition to that portion of these amounts determined valid for payment as a result of the Navy Claims Settlement Board evaluation of the claims, within the terms of the existing contracts, these adjustments included \$2.5 million in additional compensation under Public Law 85-804 on each of the contracts, with the exception of Contract N00024-69-C-0307, in view of the complete release given by the Company and various other elements of the overall settlement of open issues. Contract N00024-67-C-0325 for the CVN 68/69 has also been reformed under Public Law 85-804 by correcting a mutual mistake concerning the fringe benefits clause in said contract. This reformation increases the Government's obligations by approximately \$13.2 million and said amount is reflected in the adjustments stated above.

The entire settlement is subject to the availability of appropriations.

If desired, I am prepared to respond to any questions regarding this determination.

Sincerely,

EDWARD HIDALGO.

Secretary CLAYTOR. Now the second item that we have today is the FFG program. This program differs significantly from the contracts which gave rise to the large claims backlog. It is an example of a realistic application of lessons learned and represents a distinct reaction from earlier policies and practices. As such, it is an important point of departure and a base upon which subsequent improvements have been made, and will continue to be made.

Unlike the older contracts upon which the claims had been filed, the FFG-7 program utilized a cost-plus-incentive fee contract for the lead ship properly recognizing that, in a new class of ships, development necessarily occurs side by side with construction of the initial ship. I would like to summarize the characteristics of the ship. It has been described as the backbone of the Navy's Sea Control Force. I think that is not right.

The FFG-7 is a fine ship particularly well suited for the missions for which it was primarily designed: Escort of amphibious groups and of military and merchant convoys in a moderate threat environment. It is not designed as a carrier task group or battle group escort although I think it is so capable that it could give a good account of itself under many circumstances.

Let's look for a minute at the principal characteristics of the FFG-7 class. While primarily an escort ship—the modern equivalent of the destroyer escort of World War II, two of which I had the privilege of commanding—it is an extraordinary capable 28-knot gas turbine powered ship of some 3,700 tons—well over twice the size of the World War II DE. Probably its most important capability is in anti-submarine warfare (ASW). Here it has:

Active sonar (AN/SQS-56). Very effective and relatively short range for convoy screen defense, complementing the long range sonars of the FF-1052 class ships with which it would ordinarily be teamed in convoy operations.



Passive sonar (TACTAS). Not yet in production but to be fitted when ready. This new towed array sonar will add a whole new dimension to surface ship submarine detection.

MK 46 homing torpedoes with which to destroy submarines that have been detected. These have been in service for some time.

Two LAMPS helicopters. Initially LAMPS I but these will be replaced by the more capable LAMPS III and its special recovery system called RAST after 1984.

This combination makes the ship a very effective submarine detector and killer.

Second, it has excellent anti-air warfare capability including both area defense for the convoy and point defense for itself. These weapons include:

Standard missile and launcher with Mk 92 fire control system [security deletion].

The Mk 75 rapid fire 76-millimeter gun [security deletion].

The Vulcan Phalanx which we call the close-in weapon system for short-range point defense against missiles, particularly effective against incoming low-flying missiles. This is probably the most effective defensive weapon that our Navy has developed since World War II, and my only objection to it is that we are not building it fast enough. I would like to get many more of them much sooner, but we are producing the Vulcan Phalanx as fast as current budget limitations permit, and we will clearly have these on all the FFG's as well as on our carriers and cruisers, too.

Finally, the AN/SPS-49 air search radar which is an excellent air search radar and which would be tied into some of these other systems.

Now for surface warfare, the third function, the ship has:

Harpoon antiship missile, a range of 60 nautical miles, the best surface-to-surface missile that we have already in service. It also has, of course, the 76-millimeter gun, and the standard missile which is primarily the anti-air-defense weapon that can also be used in the surface mode. Of course, it has the AN/SPS-55, surface search radar.

As an aside, Senator, this little ship can engage surface targets at ranges well in excess of those that could be reached by battleships in World War II.

As I have already mentioned, I join with almost all knowledgeable Navy professionals in both this country and abroad in being an enthusiastic supporter of this fine ship. Although the FFG shipbuilding project was designed and much of it implemented before I took office in early 1977, nevertheless I am proud of the way the Navy has managed it, and I believe that much of the criticism leveled against it is based on inaccurate or incomplete information. I will be glad to go over with you at the proper time—I won't include it in my statement, but we would like to have the opportunity to discuss with you this morning—the cost growth on this ship and how it came about. I think that probably is the crux of this part of the inquiry.

[The prepared statement of Secretary Claytor follows:]

## PREPARED STATEMENT OF HON. W. GRAHAM CLAYTOR, JR.

Mr. Chairman, I am pleased to appear before you today to discuss Navy shipbuilding, specifically the areas you have suggested for today's hearing: the settlement of the Newport News claims and the FFG-7 frigate program.

## THE NEWPORT NEWS SETTLEMENT

The Newport News settlement was reached on October 5, 1978 after prolonged and complex negotiations encompassing a year between officials of Tenneco, Inc. and Assistant Secretary Hidalgo, who accompanies me here today. It represents the final settlement of the large shipbuilding claims backlog, over \$2.7 billion in magnitude in May of this year, arising out of shipbuilding contracts entered into under procurement policies and practices of the late 1960s and early 1970s. The largest aspects of the Newport News settlement was the resolution of \$742 million in claims arising out of five contracts made from 1969-1971 for twelve nuclear-powered warships (two aircraft carriers, three guided missile cruisers and seven attack submarines). The claims alleged Navy responsibility for added costs and delays in the construction of the ships. Two years of painstaking analysis and audit of the claims, conducted by the Navy Claims Settlement Board headed by Rear Admiral F. F. Manganaro, resulted in an evaluation of approximately \$142 million. In addition to settlement of these claims on the basis of this evaluation by the Board, the agreement included two limited actions under Public Law 85-804. First, a reformation of the CVN 68-69 carrier contract in response to a written request by Newport News under Public Law 85-804 based upon mutual mistake in connection with the reimbursement of fringe benefits admittedly paid by the contractor.

The Navy Contract Adjustment Board reviewed the contractor's request and concluded that a mistake had in fact occurred and recommended payment to Newport News of \$13.2 million, a recommendation adopted by Assistant Secretary Hidalgo. Second, Assistant Secretary Hidalgo authorized an increase in the claim settlement under each of the four contracts for the nuclear attack submarines, the guided missile cruisers and the nuclear aircraft carriers, by \$2.5 million, as additional relief under Public Law 85-804, in view of the comprehensive releases to be given by Newport News beyond the dates of claims submission (1975-6) and the various other significant elements of the overall settlement of open issues. The total amount of ceiling price adjustments, including the limited P.L. 85-804 relief, is \$165.1 million.

As I have stated on other occasions, our approach to the shipbuilding problems and our negotiations with the shipbuilders have systematically proceeded on the principle that it did not suffice merely to settle the outstanding claims. All existing elements of disagreement and controversy had to be eradicated. The settlements with Litton and General Dynamics, as to which we testified before this Subcommittee in September of this year, resolved not merely the claims but also numerous outstanding issues and the serious backlog of unpriced change orders. The result was to establish a new environment and a baseline from which to work in the future in order to concentrate on the fundamental objective of constructing essential combatant ships. Our approach with Newport News was identical in this essential respect.

The negotiations, in addition to resolving the claims and other open issues, resulted in the formalization of the contract for the third NIMITZ class carrier, the USS CARL VINSON (CVN-70). This ship was being constructed under an option, undefinitized as to price, exercised by the Navy in April of 1974. Newport News had, in the intervening years been receiving reimbursement of costs and a profit thereon. As late as January 1978 Newport News had submitted twenty-eight clauses, deemed objectionable by the Navy, which Newport News demanded be incorporated in any contract definitization. In mid-summer, however, as an integral part of the effort to resolve the overall controversies, these demands were withdrawn. The agreed-upon contract was essentially patterned on the terms and conditions of the fourth flight SSN-688 contract awarded in September 1977.

The settlement resolved all open issues between the Navy and Newport News on all twelve ships on which claims had been submitted. This included the pricing of hundreds of contract changes which had been pending for several years. The sole exception to this overall resolution was the CGN-41 which was the subject matter of a 1976 settlement initiative and which is currently in litigation under the direction of the Department of Justice.

#### THE FFG-7 PROGRAM

The FFG-7 program differs significantly from the contracts which gave rise to the large claims backlog. It is an example of a realistic application of lessons learned and represents a distinct reaction from earlier policies and practices. As such, it is an important point of departure and a base upon which subsequent improvements have been made, and will continue to be made.

Unlike the older contracts upon which the claims had been filed, the FFG-7 program utilized a cost-plus-incentive fee contract for the lead ship, properly recognizing that, in a new class of ships, development necessarily occurs side-by-side with construction of the initial ship.

The FFG-7 program also provided for a 2 year hiatus between lead and follow ship construction. The SSN 688 program, subject of both the General Dynamics and Newport News claims, involved contracts for eleven follow ships within a meager 10 months of awarding the lead ship contract. The gap phasing is essential to achieve an orderly shake-down of the initial design and to contract for an orderly transition to follow-on construction. This approach also allows effective integration of changes, deemed necessary in the development of the lead ship, into the follow ship in sufficient time to avoid impact on ongoing construction.

Unlike the LHA and DD-963 programs, the FFG-7 did not utilize the Total Package Procurement concept, discredited and outlawed in defense procurement by 1973. The FFG-7 follow ship contracts, which were fixed-priced, also differed in escalation provisions in two principal respects from the older contracts which were the subject of the claims: They used escalation based on actual expenses as opposed to pre-set expenditure curves and capped rather than terminated at the original contract delivery date. The absence of such inflation coverage, particularly in the double digit inflation of the early 70s, was a major factor in the huge losses anticipated, prior to settlement on the claims-ridden contracts.

The FFG-7 introduced other innovations absent from those earlier programs: Effective interaction between lead and follow yards on design; validated drawings; the use of land based test facilities, by which systems can be tested and subsequently modified prior to introduction in the construction process; and, a form of advance procurement of standardized contractor furnished equipment by the placing of options by the lead shipbuilder.

It is clear that these innovations should contribute positively to the claims-free prospects of the FFG-7 program. A little over one year ago, the lead ship was delivered by Bath Iron Works. The follow ships at both Bath and the two Todd shipyards are proceeding satisfactorily. Both the Navy project office and the shipyards are to be commended for the progress of these programs. It is clear that the innovative conditions established early in this program have allowed both parties to concentrate on the difficult day-to-day task of ship construction as opposed to the wasteful hours spent in claims preparation and analysis in connection with contracts which, in the light of hindsight, were seriously flawed from their inception.

I close by reemphasizing that the improved policies and procedures incorporated in the FFG program are an integral part of current shipbuilding programs at both large and small shipbuilders. But they are just a beginning; later programs such as the DDG-47 are making further improvements in the process. We must continue to improve and refine the procurement policies and practices by which we obtain ships; the hallmark of our actions must be realism in contractual terms and conditions. There is much still to be done if we are to avoid the mistakes of the past and we intend to pursue that course.

Mr. Chairman, that concludes my formal statement.

Secretary CLAYTOR. Now, Mr. Chairman, I would appreciate it very much if Mr. Hidalgo would be permitted to make some very brief opening remarks and we will get to the questions.

Senator PROXMIRE. Mr. Hidalgo, go right ahead, sir. We are very happy to have you with us. Are copies of your remarks available?

Mr. HIDALGO. No; I have nothing written. Very briefly, I would like to stress for your knowledge that the negotiations with Newport News lasted from October of 1977 to October of this year. There were extremely difficult issues to resolve. One of the reasons was that from the outset—incidentally, most of my negotiations were with Vice President John Diesel who upheld his company's position very tenaciously throughout the negotiations. One of the reasons for the difficulty was an absolute refusal on the part of the Navy to invoke 85-804 except in the very marginal respect that I will come to in a minute.

So we were not limited to the evaluation that Admiral Manganaro's board would make eventually, as Mr. Claytor has pointed out, and which came out at \$142 million in round numbers. Now, the fringe benefit aspect, Mr. Chairman, was simply an obvious mistake that both parties made that had been pending since 1970, and it was long overdue and it should be corrected. As a part of the annex to the memorandum of decision are the recommendations that the Chairman of the Navy Contract Adjustment Board made to me and which I accepted. Incidentally, there is no question but that the amount of fringe benefits paid by Tenneco to Newport News was on the order of \$18 million, and the amount we accepted was \$13.2 million.

I would just like to stress in closing that not only did we dispose of \$742 million of existing claims which covered events up to only 1974 and 1975, Mr. Chairman. This means that had we embarked on the litigation that you heard Mr. Claytor and me talk so much about, that we wanted to avoid if we could within the interests of the Navy and of the national interests, as well, I am sure that additional very substantial amounts of claims would have been filed. So when you consider the \$165 million settlement of \$742 million of claims, this is not the same ratio if litigation had occurred. Had we gone to litigation, I think we would have had to litigate something very different.

I would like to stress to you, Mr. Chairman, that one of the very important things accomplished here was that the nuclear carrier CVN-73 was being built, really, without a contract, and the acrimony that we talked about on previous occasions had hardened considerably. The Navy had found the Newport News position on various issues unacceptable, and vice versa, but as a part of the settlement process this was all disposed of. There is a long list of the various issues that we resolved, but I don't want to take any more of your time. I can really assure you that it was a very strenuous, difficult negotiation which broke up many, many times with a total impasse between myself and Mr. Diesel, but eventually both sides realized that 10 years of litigation would not profit either side.

That is all I have to say.

Senator PROXMIRE. Secretary Claytor, I want to spend the time this morning discussing the FFG because this is something we have not had an opportunity to discuss at all before. We have been through the Newport News matter, as you know.

Secretary CLAYTOR. Yes, sir.

Senator PROXMIRE. We have submitted a series of questions prior to the hearing, you have given us answers in writing, and we will

make that part of the record at this point, so I am going to confine my questions to the FFG.

Secretary CLAYTOR. Fine.

[The written questions and answers referred to follow:]

RESPONSE OF HON. W. GRAHAM CLAYTOR, JR., TO WRITTEN QUESTIONS POSED BY SENATOR PROXIMIRE PRIOR TO THE HEARING

**Question 1.** For each of the six Newport News claims (i.e., CVN's 68/69, SSN's 686/687, SSN 688, SSN's 689/691/693/695, CGN's 36/37 and CGN's 38/39/40) please identify the amount in the claims settlement for (i) litigative cost; (ii) litigative risk; (iii) delay; (iv) disruption; (v) financing costs; (vi) so called "hardcore items"; (vii) the amount of and rationale for any other payments. Provide the same breakdown for the recent Litton and General Dynamics claims settlement.

**Answer.** The attached chart summarizes the major elements of the settlements on the six Newport News claims as well as the General Dynamics claim under two SSN 688 class contracts. In regard to the Litton settlement we refer to answer No. 11 in correspondence of 22 August 1978 in which the constituent parts of the settlement are discussed in detail.

NEWPORT NEWS/ELECTRIC BOAT CLAIM SETTLEMENTS

[In millions of dollars]

EB

	CGN 36/37	CGN 38-40	CVN 68/69	SSN 686/687	SSN 688	SSN 689-695	SSN 688 I	SSN 688 II
Cost of litigation.....	3.3	8.0	8.0	8.0	4.0	4.0	2.1	6.7
Litigative risk.....	10.8	11.5	8.5	7.4	4.7	3.7	1.6	18.6
Delay <sup>1</sup> .....	4.4	0	1.1	0	9.9	25.4	12.9	68.9
Disruption <sup>1</sup> .....	4.0	2.3	2.6	0	2.5	1.3	0	0
Financing.....	8.3	3.9	3.5	3.9	1.6	1.0	0	0
Hardcore <sup>1</sup> .....	13.5	.1	.8	2.0	1.2	.4	4.5	9.7
Other costs <sup>2</sup> .....	.1	8.4	15.7	.6	3.2	5.9	0	0

<sup>1</sup> Delay, disruption, and hardcore amounts include a pro rata share of profits and target to ceiling spread where applicable.

<sup>2</sup> Delay, disruption, and hardcore items include entitlement portion only.

<sup>3</sup> Other costs include, FICA/Federal unemployment escalation and Public Law 85-804.

**Question 2.** With respect to the settlement of Newport News claims cited in No. 1 above, how much was paid under contract cost sharing provisions, and how much was paid outside these provisions, i.e., as straight payments? Describe each of the items paid outside the cost sharing provisions and the rationale for doing so. For each contract for which the adjustment in ceiling price is greater than the adjustment in target price identify the amount of the difference and the basis for entitlement. For each ship involved identify the status of construction at the time the ceiling price adjustment was determined.

**Answer.** \$85.2 million of the total settlement was made as increases in ceiling prices which were subject to the shareline provisions of these Fixed Price Incentive contracts. \$79.9 million of the total settlement was not subject to the shareline provisions. Items included in the settlement which were outside the shareline provisions consist of: (1) cost of litigation, (2) financing costs; (3) increases in FICA and Federal unemployment taxes payable under the Federal, State, and Local Taxes provisions of the contracts, (4) escalation payable in the CGN 38-40 contract where equitable adjustments including the Claim settlement are paid in base year dollars which result in escalation payments under the Compensation Adjustments (Labor and Material) article and (5) adjustments made under Public Law 85-804.

The ceiling price adjustments were greater than the target price adjustments by the amounts shown in the settlements of the following contracts:

	Millions
SSN 668.....	\$2.2
SSN 689-695.....	4.5
CVN 68/69.....	1.3
CGN 38-40.....	2.4

In the settlement of the CGN 36, 37 and SSN 686, 687 claims, the ceiling price adjustment was the same as the target price adjustment. The Navy Claims Settlement Board reviewed each claim individually and considered when the major events claimed and allowed in the analysis occurred relative to the various stages in the construction process. Based on this review increases in ceiling price in excess of the target price were considered appropriate in different amounts. The construction status of the ships involved at the time of claim submission and at settlement was as follows:

Claim submission	Settlement
SSN 688..... Under construction.....	Delivered.
SSN 689..... do.....	Do.
SSN 691..... do.....	Do.
SSN 693..... do.....	Do
SSN 695..... do.....	Under construction.
CVN 68..... Delivered.....	Delivered.
CVN 69..... Under construction.....	Do.
CGN 38..... do.....	Do.
CGN 39..... do.....	Do.
CGN 40..... do.....	Do.

**Question 3.** Provide the Navy's present estimate of Newport News' final profit or loss on each of the six ship construction contracts involved in the recent claims settlement. How do these compare with Newport News' figures supplied to the Navy?

**Answer.** The Navy's estimate of Newport News' final profit or loss on each of the six ship construction contracts involved in the recent claims is as follows:

	Profit/(loss) (millions)	Percent of total final cost
CGN 36-37.....	\$14.4	6.2
SSN 686/687.....	(2.8)	(2.1)
SSN 688.....	2.5	2.0
SSN 689/695.....	(1.6)	(.5)
CVN 68/69.....	66.6	6.9
CGN 38-40.....	19.6	5.0

The recent NNS settlement covering the CGN 38-40, CVN 68/69, SSN 686/87, SSN 688 and SSN 689-95 claims with a total final contract price of over \$2 billion resulted in a profit of \$84.4 million or about 4.2 percent of total final costs.

It should be noted that these profit/(loss) figures reflect a reduction of approximately \$23.1 million over all the claims for cost disallowances. In addition these figures must also be reduced by the cost of financing which is not allocated to individual contracts under the Newport News accounting system. While Newport News does submit costs reports which predict an estimated cost at completion, Newport News does not provide the Navy information relative to the profitability of individual contracts.

**Question 4.** About \$23 million of the Newport News claims settlement is for payments under Public Law 85-804. Were any of these Public Law 85-804 payments made under contracts on which Newport News would achieve a profit without such extra-contractual relief? If so, provide the details and cite the precedents relied upon by the Navy for using Public Law 85-804 to increase profits.

**Answer.** The total of \$23.2 million in payments under Public Law 85-804 was broken down as \$13.2 million for correction of a mutual mistake relating to fringe benefits on the CVN 68-69 contract and \$2.5 million additional on the contracts for the SSN 688, SSN 689-95, CGN 38-40, and CVN 68-69. The latter relief was based on the residual power to grant extraordinary relief which is described in Part 3 of section XVII of the DAR. This relief was granted in view of the comprehensive releases to be given by Newport News beyond the dates of claims submissions and various other significant elements of the overall settlement. As stated in the answer to No. 3 above, the Navy estimates that the company will be in a profit position with respect to the SSN 688, CVN 68-69, and CGN 38-40 contracts. The purpose of the Public Law 85-804 actions with respect to all the

contracts was to facilitate the national defense by being fair and equitable under the circumstances; not to increase or decrease loss. The authority for the actions relating to the three specified contracts is the act itself, which does not limit the power to grant extraordinary relief to contracts which are in a loss position, and the regulations which implement the act and which appear as section XVII of the DAR.

**Question 5.** With respect to contracts involved in the Litton, General Dynamics, and Tenneco shipbuilding claims settlements, provide copies of any contract clause which require the shipbuilder to identify changes promptly. Provide also any memoranda which explain how the Navy enforced these clauses in the claims analysis process.

**Answer.** Contract clauses requiring the shipbuilder to identify changes promptly were included in the Newport News contracts for SSN 688, 689, 691, 693, 695, and CGN 38-40. In addition, the General Dynamics contracts for SSN 690, 692, 694, 696-699 and SSN 700-710 included contract provisions requiring prompt identification of changes. The clauses which were included are attached.

These clauses, which were promulgated by a Navy Procurement Circular in March 1970, were not included in the Newport News contracts for CVN 68, 69, SSN 686, 687, and CGN 36 and 37 or in the Litton contract for LHA 1-5 which were awarded prior to that date.

The memorandum which provides the basic legal position which was considered by the Navy Claims Settlement Board in developing its position with respect to these clauses is available for your personal review. However, it is not considered to be in the best interest of the Government to place this attorney "work product" in the record. Certain issues relating to these clauses have not been decided by the courts and there are other active contracts in which these clauses are included.

#### PROBLEMS IDENTIFICATION REPORTS

"(a) Whenever the Contractor knows of or reasonably can anticipate the occurrence of any 'contract problem,' which term as used herein means a fact or circumstance which can or will significantly or substantially alter the time of delivery or completion of performance or can give rise to a substantial claim for increased compensation or for modification of the contract or specification requirements, but excluding any claim for which notice is required by the clause of this contract entitled 'Changes,' the Contractor shall promptly transmit to the Supervisor a 'Problem Identification Report.' The parties agree that the meaning of such words as 'significantly,' 'substantially,' 'substantial' and the like as used in this paragraph shall be interpreted in the same manner as they would be interpreted by a reasonably prudent businessman under all the relevant circumstances.

"(b) Each Problem Identification Report required by this clause shall be entitled 'PROBLEM IDENTIFICATION REPORT,' shall be dated and numbered sequentially, shall set forth, on the basis of the best information then known to the Contractor:

- (i) The nature of the reported contract problem;
- (ii) The date the contract problem occurred or was discovered;
- (iii) The direct and foreseeable consequential ('ripple') effects of the contract problem upon the contracted cost of performance and delivery or supplies or services, identifying which supplies or services are or will be affected; and
- (iv) The Contractor's recommended solution to the reported contract problem; and shall be signed by a representative of the Contractor.

"(c) Notwithstanding the 'Changes' clause of this contract, except for possible claims based upon defective specifications, the Contractor shall not be entitled, because of the occurrence of a contract problem, to any equitable adjustment of the contract price due to the incurrence of costs therefor more than 20 days before the Contractor submits the required Problem Identification Report. Further, required Government actions performed prior to the date of a Problem Identification Report identifying such required Government actions shall be deemed to have been timely performed."

- (1) in the contract price or delivery schedule or both, and

(ii) in such other provisions of the contract as may be so affected, and the contract shall be modified in writing accordingly; *Provided*, however, That except for claims based on drawings, designs or specifications which are allegedly defective or impossible of performance, no claim for any change under (b) above Contractor gives written notice as therein required; and *Provided further*, That in the case of drawings, designs or specifications which are defective or impossible of performance for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with such defective or impossible drawings, designs or specifications before the Contractor discovers or reasonably should have discovered the defectiveness or impossibility.

"(e) Any claim by the Contractor for adjustment under this clause must be asserted within 45 days from the date of receipt by the Contractor of a written change order under (a) above or the furnishing of a written notice under (b) above; *provided*, however, that the Contracting Officer, if he decides the facts justify such action, may receive and act upon any such claim asserted at any time prior to final payment under this contract. Where the cost of property made obsolete or excess as a result of a change is included in the Contractor's claim for adjustment, the Contracting Officer shall have the right to prescribe the manner of disposition of such property.

"(f) Failure to agree to any adjustment shall be a dispute concerning a question of fact within the meaning of the clause of this contract entitled 'Disputes.' However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed as herein provided.

"(g) For the purpose of issuing change orders under this contract, the term 'Contracting Officer' shall be as defined in the clause of this contract entitled 'Definitions' except that the term shall not include any representative of the Contracting Officer whether or not such representative is acting within the scope of his authority.

"(h) The Contracting Officer may, at any time, by written notice, direct the Contractor to comply with instructions, directions or orders given by a representative of the Government other than the Contracting Officer. Such notice shall designate the person empowered to give the aforesaid instructions, directions or orders, and shall specify and limit the scope of contract performance to which such instructions, directions or orders may be addressed. If the Contractor regards any instruction, direction or order issued within the limitations of the aforesaid notice as a change order, the Contractor nonetheless shall comply therewith and shall thereafter proceed in accordance with paragraph (b) of this clause."

- (3) The identification of any documents involved;
- (4) The substance of any oral communications;
- (5) The particular technical requirements or contract requirements regarded as changed; and
- (6) The direct and foreseeable consequential effects of the communication, act or omission regarded as a change order upon the contracted cost, manner and sequence of performance and delivery of supplies or services, identifying which supplies or services are or will be affected.

The Contracting Officer shall respond within ten (10) working days of receipt of the Contractor's notice as required above, either:

(i) to countermand the communication regarded as a change order except for an instruction, direction or order given pursuant to paragraph (h); or

(ii) to deny that the communication, act or omission described above in this paragraph or the instruction, direction or order or any part thereof given pursuant to paragraph (h) constitutes a change order under this clause; or

(iii) to confirm that the communication, act or omission described above in this paragraph or the instruction, direction or order or any part thereof given pursuant to paragraph (h) is a change order by issuance of a written change notice designated a Change Order; *provided*, that any denial pursuant to subparagraph (ii) above shall be a question of fact within the meaning of the clause of this contract entitled 'Disputes.' If the Contractor complies with any order, direction, interpretation or determination, written or oral, from someone other than the



Contracting Officer without providing the notice and receiving the response provided above, it shall be at the Contractor's risk, and the Government shall not be liable for any increased costs, delay in performance or contract nonconformance by the Contractor. However, failure by the Government to respond within the time required above shall be deemed a confirmation under subparagraph (iii) above.

"(c) Except as herein provided, no order, statement, or conduct of any representative of the Government shall be treated as a change order under this clause or entitle the Contractor to an equitable adjustment hereunder.

"(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for the performance of any part of the work under this contract, whether changed or not changed by such order, an equitable adjustment shall be made:

#### CHANGES

"(a) The Contracting Officer may at any time, by written order, designated or indicated to be a Change Order, and without notice to the sureties, make changes, within the general scope of this contract, in any one or more of the following: (i) drawings, designs or specifications, (ii) method of shipment or packing; and (iii) place of delivery.

"(b) If the Contractor considers that any other written or oral communication, including any order, direction, instruction, interpretation or determination, received from a representative of the Government, or that any other act or omission of the Government, constitutes a change order, the Contractor shall so advise the Contracting Officer in writing within ten (10) working days, and shall request his written confirmation thereof. Except as provided and circumscribed in paragraph (h) below, the Contractor shall take no action thereunder until he has been advised by the Contracting Officer in writing as to the disposition thereof. Such notice to the Contracting Officer shall state:

(1) The nature and pertinent circumstances of the act or omission regarded as a change order;

(2) The date of the communication, act or omission, and the identification of each individual involved in such communication, act or omission, listing his name and function;

*Question 6.* Please provide the FY 77, FY 78, and FY 79 annual budgets of the Office of the Navy General Counsel. For these budgets include a breakdown by major cost element, including personnel salaries and fringe benefits, number of attorneys and clerical support staff, and so forth. Provide also the Navy's projections with respect to the above for FY 80-84.

Answer. The information is provided in the attached chart.

#### OFFICE OF THE GENERAL COUNSEL (CENTRAL OFFICE, CONTRACT APPEALS DIVISION, OFFICE OF CIVILIAN PERSONNEL LAW)

Fiscal year	Authorized positions	Attorneys	Support staff	Salaries	Personnel benefits	Other	Total
1977.....	75	50	25	\$1, 827	\$181	\$267	\$2, 275
1978.....	88	57	31	1, 873	178	259	2, 310
1979.....	93	60	33	2, 274	216	275	2, 765
1980.....	93	60	33	2, 375	226	299	2, 900
1981.....	93	60	33	2, 400	228	324	2, 952
1982.....	93	60	33	2, 425	230	354	2, 989
1983.....	93	60	33	2, 450	233	405	3, 088
1984.....	93	60	33	2, 475	235	421	3, 131

<sup>1</sup> Transfer of a function of the Office of Civilian Personnel Law to the Office of the General Counsel; 18 personnel.

*Question 7.* Please provide the information requested in No. 6 above with respect specifically to the Contract Appeals Division of the Office of the Navy General Counsel and the Office of the Counsel, Naval Sea Systems Command.

Answer. The information is provided in the attached charts.

## CONTRACT APPEALS DIVISION

Fiscal year	Authorized positions	Attorneys	Support staff	Salaries	Personnel benefits	Other	Total
1977.....	38	28	10	1,083	\$103	\$202	\$1,389
1978.....	38	28	10	1,108	105	204	1,417
1979.....	43	32	11	1,212	115	209	1,536
1980.....	43	32	11	1,224	116	220	1,560
1981.....	43	32	11	1,236	117	225	1,578
1982.....	43	32	11	1,248	119	230	1,597
1983.....	43	32	11	1,260	120	236	1,616
1984.....	43	32	11	1,272	121	241	1,634

## OFFICE OF THE COUNSEL, NAVAL SEA SYSTEMS COMMAND

Fiscal year	Number of attorneys	Number of staff support	Salaries	Personnel benefits	Other	Total
1977.....	48	15	\$1,463,000	\$150,000	\$59,000	\$1,811,000
1978.....	52	15	1,738,000	177,000	47,000	2,114,000
1979.....	48	14	1,753,000	180,000	53,000	2,133,000
1980.....	46	14	1,764,000	183,000	56,000	2,165,000
1981.....	46	14	1,940,000	201,000	57,000	2,368,000
1982.....	46	14	2,134,000	211,000	63,000	2,597,000
1983.....	47	15	2,398,000	239,000	71,000	2,928,000
1984.....	48	15	2,694,000	267,000	79,000	3,282,000

*Question 8.* Provide the names and positions of those Navy officials involved in determining the amounts paid to Newport News for litigative risk on the claims settlements. What figure did the Navy Claims Settlement Board recommend for litigative risk purposes? If different figures were used in the claims settlement, explain why. With respect to the Newport News claims, explain how the percentage of total claims settlement (exclusive of Public Law 85-804 amounts) paid for litigative risk compares to corresponding percentages for earlier settlements of claims over \$50 million which the Navy has settled since 1968.

Answer. The following Naval personnel were involved in the process leading to the determination of the amounts included for litigative risk in the claim settlements with Newport News.

Mr. P. Moed—Member for Legal Matters NCSB.  
 Mr. R. J. Gomez—Member for Legal Matters NCSB.  
 Mr. J. K. Kominers—Member for Legal Matters NCSB.  
 Mr. R. J. Lipman—Member for Legal Matters NCSB.  
 Ms. P. A. Szervo—Deputy General Council (Litigation).  
 Mr. R. W. Sherman—Counsel.  
 Mr. M. K. McElhaney—Counsel.  
 Ms. P. Kilcoyne—Counsel.  
 Mr. E. W. Drake—Counsel.  
 Mr. P. J. Gnazzo—Counsel.  
 Mr. G. Sears—Counsel.  
 Mr. B. Stoller—Counsel.  
 Mr. R. C. Spitzer—Counsel.  
 Mr. M. Gellar—Counsel.  
 Ms. J. M. Gottfried—Counsel.  
 Mr. J. Schneider—Counsel.  
 Ms. S. J. Adkins—Counsel.  
 Mr. E. B. Paulisch—Counsel.  
 Mr. J. N. Eisenstein—Counsel.  
 Mr. J. T. McCullough—Counsel.  
 Mr. R. Cornelius—Counsel.  
 Mr. P. Schreffler—Counsel.  
 M. P. Erickson—Counsel.  
 Mr. J. M. Vogel—Counsel.

The litigative risk assessments for each claim element prepared by these attorneys along with quantification information provided by technical and audit personnel was reviewed by the Navy Claims Settlement Board in order to establish the final position for each claim item. The Navy Claims Settlement Board recommended the litigative risk figures which are included in the settlement. These figures are indicated in the response to question 1.

The attached chart summarizes litigative risk positions on claims over \$50 million settled since 1968 where data is available.

**LITIGATIVE RISK**  
[Dollar amounts in millions]

Contractor	Items	Number of contracts	Claim amount	Settlement amounts <sup>1</sup>	Litigative risk	Percentage of settlement
Avondale.....	DE 1052.....	2	\$169.0	\$80.0	\$12.0	15.0
General Dynamics, Quincy.....	AOR 1-6.....	3	78.0	30.0	4.5	15.0
Do.....	AS 36-37.....	2	68.0	33.0	5.0	15.0
General Dynamics.....	LSD 37-40.....	2	57.0	21.0	7.0	33.0
Newport News.....	CGN 36-37.....	1	151.0	44.3	10.8	24.3
Do.....	SSN 688/689-695.....	2	270.1	63.7	8.4	13.1
Do.....	SSN 686/687.....	1	90.4	21.9	7.4	33.8
Do.....	CVN 68/69.....	1	221.0	24.5	8.5	34.7
Do.....	CGN 38-40.....	1	160.0	31.7	11.5	36.2
Electric Boat.....	SSN 690/699.....	1	231.5	97.0	13.0	13.4
Do.....	SSN 690-710.....	2	544.3	125.0	20.2	16.2

<sup>1</sup> Excludes Public Law 85-804 amount.

**Question 9.** Please cite the amounts paid to Newport News for litigative cost, including a breakdown of cost by major element. Provide the names and positions of those involved in determining these amounts and the actual documents in which these amounts were computed and justified. How does the amount paid for litigative cost in the Newport News claims compare as a proportion of the total claims settlement (exclusive of Public Law 85-804 payments) to corresponding percentages for earlier claims \$50 million the Navy has settled since 1968.

Answer. Attachment (1) is a breakdown of the major elements of cost which make up the cost of litigation included in Newport News Settlements. The estimates of the costs of litigation were developed by the Office of General Counsel of the Navy and provided to the Navy Claims Settlement Board by the enclosed memorandum (attachment (2)). A summary of the cost of litigation as a percentage of settlements of claims over \$50 million since 1968 where data was available is also included as attachment (3).

**ATTACHMENT 1**  
**NNS SETTLEMENT—COST OF LITIGATION**  
[In millions of dollars]

	CGN 36/37	CGN 38-40	CVN 68/69	SSN 686/87	SSN 688	SSN 689-95
Total cost of litigation.....	3.3	8.0	8.0	8.0	4.0	4.0
Major elements:						
OCG-NAVSEA personnel costs.....	1.2	2.5	2.5	2.5	1.3	1.3
NAVSEA facilities cost.....	.1	.5	.5	.5	.2	.2
DCAA costs.....	.2	.8	.8	.8	.4	.4
Consultant costs.....	1.3	3.0	3.0	3.0	1.5	1.5
Witness costs (fees and travel).....	.2	.1	.1	.1	.1	.1
Computer costs.....	.3	1.1	1.1	1.1	.5	.5

## ATTACHMENT 2

DEPARTMENT OF THE NAVY,  
OFFICE OF THE GENERAL COUNSEL,  
Washington, D.C., July 25, 1978.

MEMORANDUM FOR REAR ADM. F. F. MANGANARO, CHAIRMAN, NAVY CLAIMS  
SETTLEMENT BOARD

Subject: Cost of litigation of Newport News claims.

At my direction, several senior members of the Contract Appeals Division have undertaken an analysis of recent historical costs for litigation of shipbuilding appeals. Based on these analyses, projections were made of litigation cost for the four Newport News Shipbuilding claims. The purpose of this memorandum is to inform you of the results of this effort.

The trial effort for each claim is estimated to require a four year program. This period is broken down into a pretrial period of 27 months duration, a trial of nine months duration and a twelve month briefing period. The estimated cost breakdown is as follows:

OGC-NAVSEA personnel costs-----	\$2, 523, 300
NAVSEA facilities costs-----	500, 000
DCAA costs-----	765, 000
Consultant costs-----	3, 000, 000
Witness costs (fees and travel)-----	125, 000
<b>Total, each claim-----</b>	<b>6, 913, 000</b>
Subtotal: Four claims-----	27, 652, 000
Computer cost: Four claims-----	4, 500, 000
<b>Total -----</b>	<b>32, 152, 000</b>

A word of explanation is required for each of these figures. The OGC-NAVSEA personnel costs figure represents salaries and fringe benefits for the lawyers, engineers and support staff that will be required to prepare, try and brief the appeal. The above listed figure is based on involvement of a total of 23 people. This number is believed to be realistic, although perhaps a bit conservative, in light of the number of Navy personnel who were utilized by the Navy Claims Office in Pascagoula over the last several years.

The NAVSEA facilities cost is simply an estimate of the supplies, leases and other logistical support which will be required by the 23 Navy personnel.

The DCAA cost is self-evident. It consists of the cost of the audit services needed to verify original claims figures and to price out claim changes that result from updated contractor submittals, from documents obtained in discovery and from testimony. This amount would also allow DCAA to provide expert accounting witnesses at trial. The estimate of \$765,000 was supplied by DCAA, Pascagoula, as the cost of a three-year audit and pricing program. In light of recent experience, CAD believes it to be a reasonable estimate.

The consultant cost figure represents the estimated cost of the non-government production analysis contracts that will be required for proper trial preparation. This figure is very conservative and represents a new, more limited approach of CAD to the subject of outside consultants. In the "Project X" appeal, over \$6,400,000 was spent for consultants. In LHA, over \$11,000,000 had been spent by the time settlement was reached. Nevertheless, it is now felt that a better result could be obtained by having most of the analysis performed by a small cadre of highly qualified Navy personnel. Consultants would be used only for specific, well defined efforts that are beyond the capabilities of the Navy Claims team. Only experience will show if it will actually be possible to reduce consultant costs by over 65% from the average of the incurred costs on LHA and

"Project X." CAD believes that the indicated figure is realistic; however, this clearly is the most probable area of cost growth if the NNS claims are litigated.

The witness cost figure represents the expense of all witnesses who must travel to testify before the ASBCA and also includes witness fees for the various expert witnesses whose services will be required. The figure shown is a significant increase over the \$59,000 actually expended in the "Project X" trial. The reason for the increase is that many of the expert witnesses in that trial were supplied under the terms of the various consultant contracts that had been awarded. Since use of consultants is going to be materially reduced in any NNS litigation, there will be an increased need for the Navy to fund its witness costs directly. The figure of \$125,000 per appeal reflects the cost of that increased need.

The computer cost is presented as an aggregate sum for the four claims since a large portion of this amount will be expended whether there are four claims or just one. This portion consists of a cost base for computer support which will not vary proportionately with the number of appeals actually taken. These costs include those involved in gaining access to the proper computer hardware and the maintenance of an appropriate support operation. Costs that would be expected to increase would involve data entry costs and storage costs. Depending on the exact nature of the analysis that would be needed and on number of documents that must be entered, the computer support for a single appeal could cost as much as \$2,800,000. It is felt however, that the required computer support for all four appeals would probably not double this amount. Thus, an estimate of \$4,500,000 has been utilized to calculate the projection of total litigation cost for the four appeals.

The total cost of \$32,152,000 is felt to be a reasonable estimate of the probable cost of litigation of the four NNS appeals. As noted above, this figure is conservative and, if the actual costs differ significantly from the estimate it may be assumed that they will exceed it. Thus, the estimate represents an educated guess of the minimum cost of litigation for the NNS claims. By his copy of this memorandum, the General Counsel is being informed of its contents.

PATRICIA A. SZERVO,  
Deputy General Counsel (Litigation).

#### ATTACHMENT 3

#### COST OF LITIGATION

[Dollar amounts in millions]

Contractor	Items	Number of contracts	Claim amount	Settlement amount <sup>1</sup>	Cost of litigation	Percentage of settlements
Avondale	DE 1052	2	\$169.0	\$20.0	\$2.0	2.5
General Dynamics, Quincy	AOR 1-6	3	78.0	30.0	1.0	3.3
Do	AS 36-37	2	68.0	33.0	1.5	4.5
Do	LSD 37-40	2	57.0	21.0	1.0	4.8
Newport News	CGN 36-37	1	151.0	44.3	3.3	7.5
Do	SSN 688, 689-695	2	270.0	63.7	8.0	12.6
Do	SSN 686, 687	1	90.4	21.9	8.0	36.5
Do	CVN 68-69	1	221.1	24.5	8.0	32.7
Do	CGN 38-40	1	160.0	31.7	8.0	25.2
Electric Boat	SSN 690-699	1	231.5	97.0	1.8	1.9
Do	SSN 690-710	2	544.3	125.0	8.8	7.0

<sup>1</sup> Excludes Public Law 85-804 amounts.

**Question 10.** Was the Navy's determination of the amounts paid for litigative risk and litigative cost influenced in any way by the overall scope and magnitude of the Newport News claims? If so, to what degree?

**Answer.** The amounts paid for litigative risk were not influenced by the overall scope and magnitude of the claims. With respect to cost of litigation, the estimate of the cost involved in litigating claims is based to some degree on the magnitude and complexity of the claims involved. In addition, this estimate considers the recent increase in Navy effort as a result of the Freedom of Information Act and increasing emphasis on the discovery process. Thus, the cost of litigation position is affected by the scope of the claims.

*Question 11.* The basic for the Ingalls and General Dynamics claims settlements were recorded in Memoranda of Decision and attachments thereto including so-called Aide Memoire. Please provide the corresponding documents for the Newport News claims settlements, as well as the implementing contract modifications.

Answer. The relevant documents are attached.

MEMORANDUM OF DECISION TENNECO, INC.—NEWPORT NEWS SHIPBUILDING AND DRY DOCK COMPANY (NEWPORT NEWS)

INTRODUCTION

Over an extended period, representatives of the Navy and Newport News (a division of Tenneco, Incorporated) have been seeking resolution of the shipbuilding claims and other open issues (including the formalization of the CVN-70 contract) which have accumulated over the years and which threaten to consume the resources of both parties in years of costly litigation. The outstanding claims currently filed against the Navy by Newport News (approximately \$750 million) embrace contracts for the Navy's most advanced nuclear-powered aircraft carriers, guided-missile cruisers and submarines. The magnitude of these claims and the importance of other open issues between the parties have led senior officials of both Newport News and the Navy to exert every effort to arrive at settlements which, in a manner consonant with our national interest, would be mutually acceptable and enable both parties to concentrate on the building of combatant ships which will constitute a major part of our Nation's naval arsenal in the decades ahead.

The negotiations have been diligently pursued for more than ten months and have finally resolved the fundamental disputes which for years have divided the Navy and Newport News. The terms of settlement are set forth in an Aide Memoire included as Attachment (1) to this document. Two elements of the overall settlement are the sole subjects of this Memorandum: (i) the correction of an acknowledged mistake on one contract and (ii) the release of all claims to date on four current contracts, as well as other important elements of the overall settlement of open issues. The settlement of the basic claims has been reached through rigorous analysis by the Naval Claims Settlement Board and neither requires nor employs extraordinary contractual action. Those claims settlements are described in this document solely to provide the context in which these two limited actions under the authority of Public Law 85-804 are being taken.

BACKGROUND

Newport News is the largest shipbuilder in the Free World. It has built combatant Navy vessels for many years, and is the only private shipbuilder that currently has the capability to produce nuclear powered surface ships. It is the only private shipbuilder in the United States capable of building aircraft carriers, whether nuclear or conventionally powered. It is one of two shipbuilders qualified for the construction of nuclear powered submarines. In view of these unique capabilities, the importance of Newport News to the national defense, to future Navy shipbuilding programs, and to the industrial capabilities of the Nation, is self-evident.

Starting in the late 1960's and early 1970's Newport News was awarded contracts for the construction of several classes of Navy vessels. These included the CGN 36 and 37 (Nuclear-Powered Guided-Missile Cruisers), the CGN 38, 39 and 40 (also Nuclear-Powered Guided Missile Cruisers), the SSN 686 and 687 (Nuclear-Powered Attack Submarines), the CVN 68 and 69 (Nuclear-Powered Aircraft Carriers), the SSN 688 lead ship (Nuclear-Powered Attack Submarine) and four follow submarines of the SSN 688 class. All of these contracts were fixed-price-incentive contracts, and all of them included pre-set escalation clauses of the type then in use.

The number and complexity of ships ordered from Newport News during this critical period required this shipbuilder to expand its workforce dramatically. Newport News found it impossible to obtain skilled workers in the numbers required and was forced to dilute the skill level of its workforce and to convert competent journeymen into first-line supervisors. The effect of this was to decrease productivity of the yard and to stretch out the building periods of the ships under contract. This loss of productivity and stretch-out occurred during

a period of double-digit inflation experienced in the mid-1970's and resulted in a severe financial impact of delay on the shipbuilder.

At the same time, Newport News raised increasingly frequent complaints about Navy actions or inactions at critical stages during design or construction which, it asserted, either delayed or increased the cost of construction and were, therefore, compensable under the terms of its contracts. The effects of many of these events, even when the Navy acknowledged its responsibility and expressed its willingness to adjust the contract accordingly, were often so intertwined with other actions and so slow to reveal the full extent of their consequences that Newport News tended to reserve them for composite claims submission long after the fact. At their peak these contract claims totalled some \$900 million, and have since been the subject of time-consuming Navy analysis and audit to ascertain Government or Contractor responsibility.

These claims submitted by Newport News and the Company's demand for immediate payment have engendered an atmosphere of growing distrust and acrimony between the Navy and the Company. In many respects the actions of both parties have been governed less by a spirit of cooperation leading toward the orderly construction of ships than by an attitude of defensiveness and strife looking only toward the possible effects of their conduct on the litigation they both increasingly viewed as inevitable.

The Company's claim concerning the construction of the CGN 36 and 37 was eventually settled for approximately \$44 million of the claimed amount of \$151 million, leaving a balance of claims outstanding of approximately \$750 million. A contracting officer decision was issued on the claim concerning the construction of the SSN 686 and 687, recognizing Government responsibility for approximately \$3 million of the \$90 million claimed. That decision was appealed to the Armed Services Board of Contract Appeals.

We have now arrived at a point where most of the ships under these contracts have been delivered. All of the cruisers are now in active service. SSN 686, 687, 688 and three of the four follow 688 class ships are with the fleet. The Nuclear-Powered Aircraft Carriers CVN 68 and CVN 69 are deployed. Only the CVN 70, CGN-41 (both of which were added to these contracts through options the validity of which Newport News has challenged in the case of the CGN-41 and was unpriced in the case of the CVN-70) and eight follow-on SSN 688 class vessels not involved in the current claims, remain under construction at Newport News. Yet while the ships have largely left the yard, the claims they generated remain to poison the relationship between the Navy and one of its key shipbuilders.

#### THE CLAIMS SETTLEMENTS

In an effort to centralize the Navy's resources on the enormous task of analyzing Newport News' claims, the Chief of Naval Material in 1976 established the Navy Claims Settlement Board (NCSB) and assigned to it contractual responsibility for their resolution. The conclusions of the NCSB reached after two years of painstaking analysis, constitute the foundation of the overall settlement with Newport News set forth in Attachment (1). Briefly, those conclusions are:

1. The Board has analyzed the \$78.5 million claims submitted on the contract for construction of SSN 688 (N00024-70-C-0269) and has advised that total adjustments to the contract are warranted which, based upon presently estimated final contract costs, will yield Newport News an increase in contract price of approximately \$24.936 million.

2. The Board has analyzed the \$191.6 million claims submitted on the contract for construction of SSN 689, 691, 693 and 695 (N00024-71-C-0270) and has advised that total adjustments to the contract are warranted which, based upon presently estimated final contract costs, will yield Newport News an increase in contract price of approximately \$38.321 million.

3. The Board has analyzed the \$159.8 million claims submitted on the contract for construction of CGN 38, 39 and 40 (N00024-70-C-0252) and has advised that total adjustments to the contract are warranted which, based upon presently estimated final contract costs, will yield Newport News an increase in contract price of approximately \$31.276 million.

4. The Board has analyzed the \$221.3 million claims submitted on the contract for construction of the CVN 68-69 (N00024-67-C-0325) and has advised that total adjustments to the contract are warranted which, based upon present-

ly estimated final contract costs, will yield Newport News an increase in contract price of approximately \$24.527 million.

5. The \$90.4 million in claims on the contract for the construction of the SSN 686 (N00024-69-C-0307), presently on appeal in the ASBCA, have been analyzed by the Board and attorneys of the Contract Appeals Division of the Office of the General Counsel, who have advised that total adjustments to the contract are warranted which, based upon final contract costs, will yield Newport News an increase in contract price of approximately \$21.896 million.

#### ACTION UNDER PUBLIC LAW 85-804

Settlement of the foregoing claims on the basis of strict analysis of their "entitlement value" encountered serious difficulties from the very outset of the negotiations in the fall of 1977 and throughout the ensuing ten months of the continuing search for an overall solution with top officials of Tenneco and Newport News. It became abundantly clear that not only the settlement of the claims but also of other critical open issues, including the long undefined contract for the CVN-70, had to be an imperative Navy objective in the ongoing negotiations. A significant additional consideration was that several years of work had been performed by Newport News on four of these contracts since the submission of the claims in 1975 and 1976, leaving open the real prospect, in the event of continuing controversy, that supplemental claims would be filed covering events from those dates to the present.

I consider it essential that the Company's claims releases on these contracts be current so that the Navy and Newport News may resume the vital business of ship construction in a businesslike atmosphere, free from uncertainty and acrimonious contention. Accordingly, I authorize and direct the contracting officer to increase the claim settlement under each of the following four contracts by \$2.5 million in additional compensation, in view of the Company's release of all claims arising thereunder from events subsequent to the original submission of the claims, notwithstanding that such events have no been fully identified or analyzed. I have also taken into account the various important elements of the overall settlement of open issues, referred to in this Memorandum and in Attachment 1. The four affected contracts are as follows:

SSN 688 (N00024-70-C-0269)

SSN 689, 691, 693 and 695 (N00024-71-C-0270)

CGN 38, 39 and 40 (N00021-70-C-0252)

CVN 68-69 (N00024-67-C-0325)

I consider the foregoing action essential to the resumption of a normal relationship with Newport News, and hereby determine pursuant to the residual powers granted me under Public Law 85-804 that such action will facilitate the national defense.

#### CONTRACT MISTAKE

During the long course of their discussions the parties identified one matter in the nature of contract mistake which was beyond the authority of the contracting officer to address. This issue was accordingly severed from the remainder of the claims and submitted to the Navy Contract Adjustment Board pursuant to the established Armed Services Procurement Regulation (now Defense Acquisition Regulation) Section 17 procedures for handling and correcting contract mistakes. Because of the unusually high dollar value of this matter and to preserve the Contract Adjustment Board's impartiality in a case whose resolution was necessarily to become a part of the Navy's overall settlement of disputes with Newport News, I requested the Board to perform its usual analysis of the case but to forward its findings of fact and recommendations to me for final action under Public Law 85-804. The Board has done so, having reviewed voluminous records submitted by the contractor and the Naval Sea Systems Command, and having heard the testimony of numerous persons who had a part in the contract negotiation in question. The Board's report to me is incorporated as Attachment (2) hereto, and is summarized below.

On September 14, 1970, Contract N00024-67-C-0325 was amended by Modification PZ0041 from a cost reimbursement letter contract to a fixed-price incentive contract for the design and construction of the nuclear aircraft carriers NIMITZ and EISENHOWER (CVN 68 and 69). Included in the modification was a contract provision, Article 9(h), which provides for reimbursement with-



out profit, outside the incentive matrix, of employee fringe benefit costs incurred by Newport News. The clauses also included a ceiling provision as follows:

"Notwithstanding the provisions of subparagraph 9 of this [Article 9(h)], the hourly employee benefit rate on which escalation adjustments shall be paid shall not exceed \$1.25 per direct labor hour charged to all product lines for sales to customers and to Plant Under Construction accounts."

The effect of this limitation, as interpreted by the Navy, has been to preclude Newport News from recovering approximately \$17.8 million in booked costs as a consequence of the \$1.25 ceiling. In its request for relief Newport News urges that both parties relied upon erroneous factual data in arriving at this ceiling rate calculation, and that the contract should be modified to reflect as nearly as possible what would have been the intention of the parties, had the correct data been before them at the time of their negotiations.

All documentary material which might have a bearing on this question has been carefully reviewed by the Contract Adjustment Board. This material unquestionably establishes that the factual basis for the parties' ceiling calculation was erroneous. Upon referral by the Naval Sea Systems Command, the Board has found that a mutual mistake of fact clearly underlay the parties' negotiation of an appropriate fringe benefit escalation clause for the contract. The record shows that contract Article 9(h) was to serve two purposes: principally, to provide a mechanism for recovery of reasonable fringe benefit costs, and secondarily to provide, through the ceiling limitation, an incentive for the Contractor to control fringe benefit costs.

Eight years have passed since the negotiations in question. There is no evidence that Newport News has acted unreasonably in administering its fringe benefit costs, bearing in mind that its recovery of any costs over that ceiling was always in doubt. The CVN 68 and 69 are deployed with the fleet.

With the aim of arriving at a result which provides an equitable resolution within the framework of the original intentions of both parties in their negotiations, the Board has recommended adjusting the erroneous figure utilized in Article 9(h) from \$1.25 to \$1.65. I consider this to be a reasonable conclusion of a longstanding issue and adopt the Board's recommendation.

Accordingly, in full settlement of that issue and pursuant to my residual powers under Public Law 85-804, I hereby authorize and direct the contracting officer to amend Contract N00024-67-C-0325 by deleting the figure of \$1.25 and substituting \$1.65, thus providing Newport News approximately \$13.2 million in additional compensation thereunder. I find that this action will facilitate the national defense.

\* \* \* \* \*

The foregoing two determinations under Public Law 85-804 are subject to the availability of appropriations, and are contingent upon and shall be effective only upon final execution of the various settlement actions set forth in Attachment (1). The contract amendments implementing the foregoing determinations shall comply with all ASPR (DAR) Section XVII requirements and shall contain releases in a form satisfactory to the contracting officer. In no event shall these determinations be construed as authorizing, nor do they authorize, an aggregate increase of the Government's obligations under those five contracts in excess of \$25 million.

October 5, 1978.

#### ATTACHMENT 1

#### AIDE MEMOIRE

The sole purpose of initialing this document is to record the basic elements of understanding we have reached after long negotiation with respect to claims and other open issues involving contracts for the construction of ships between the Department of Navy and Tenneco/Newport News Shipbuilding and Dry Dock Company (hereinafter Newport News). With the aim of resolving all pending matters, it is our intention to take the following steps:

1. The Navy Claims Settlement Board (the "Board") has analyzed the \$78.5 million claims submitted on the contract for construction of SSN-688 (N00024-70-C-0269) and has advised that total adjustments to the contract are warranted.

which based on presently estimated final costs on said contracts, will yield Newport News an increase in price of approximately \$24.936 million on said contract. Newport News will accept said adjustments as full compensation for its claims on this contract.

2. The Board has analyzed the \$191.6 million claims submitted on the contract for construction of SNN 689, 691 and 695 (N00024-71-C-0270) and has advised that total adjustments to the contract are warranted, which, based on presently estimated final costs on said contract, will yield Newport News an increase in price of approximately \$38.321 million on said contract. Newport News will accept said adjustments as full compensation for its claims on this contract.

3. The Board has analyzed the \$159.8 million claims submitted on the contract for construction of CGN 38, 39 and 40 (N00024-70-C-0252) and has advised that total adjustments to the contract are warranted, which, based on presently estimated final costs on said contract, will yield Newport News an increase in price of approximately \$31.276 million on said contract. Newport News will accept said adjustments as full compensation for its claims on this contract.

4. The Board has analyzed the \$221.3 million claims submitted on the contract for construction of the CVN 68-69 (N00024-67-C-0325) and has advised that total adjustments to the contract are warranted, which, based on presently estimated final costs on said contract, will yield Newport News an increase in price of approximately \$24.527 million on said contract. Newport News will accept said adjustments as full compensation for its claims on this contract.

5. The \$90.4 million in claims of Newport News on the contract for SNN 686-687 (N00024-69-C-307) presently on appeal in the ASBCA have been analyzed by the Board and attorneys of the Contract Appeals Division and they have advised that total adjustments to the contract are warranted, which, based on final costs on said contract, will yield Newport News an increase in price of approximately \$21.896 million on said contract. Newport News accepts said adjustments as full compensation for its claims on this contract and will withdraw such appeal with prejudice.

6. Newport News will fully release, in a form satisfactory to the Navy, all claims based upon events, occurring on or prior to the date of the definitive documents to be executed by the parties in implementation of this Aide Memoire arising under any of the contracts listed in paragraphs 1 through 5 (and the one for the CGN 36-37), as well as the impact of any of these contracts on each other or on any other shipbuilding contract between the Navy and Newport News, or between Newport News and any other person or entity. Newport News will not contest in any forum the validity and enforceability of said contracts based upon events on or prior to the aforesaid date. Nothing contained in the aforesaid release or in this Aide Memoire, however, shall be deemed to be a waiver of the rights of the parties pertaining to the construction of the CGN-41.

7. Newport News has submitted a request for reformation of the contract for CVN 68-69 (N00024-67-C-0325) under Public Law 85-804 on the basis of a mutual mistake regarding the fringe benefit clause in said contract. The Navy Contract Adjustment Board has examined the request and has found that a mutual mistake of fact occurred. In the exercise of the Secretarial discretion vested by Public Law 85-804, the Assistant Secretary of the Navy (M,RA&L) will accept the Board's findings and recommendations, and under the residual powers of the Act will direct reformation of that contract by correcting the ceiling from \$1.25 to \$1.65, thus increasing the Government's obligation by approximately \$13.2M. Newport News will accept said adjustment as a fair and equitable reformation of the contract.

8. In the further exercise of the Secretarial discretion vested by Public Law 85-804, the Assistant Secretary of the Navy (M,RA&L) will, under the residual powers of that Act, authorize and direct the contracting officer to increase the claim settlement under each of the following four contracts by \$2.5 million in additional compensation, in view of the release to be given by Newport News, as provided in paragraph 6, and various other elements of the overall settlement of open issues contemplated by this Aide Memoire. The four affected contracts are as follows:

- SSN 688 (N00024-70-C-0269)
- SSN 689, 691, 693 and 695 (N00024-71-C-0270)
- CGN 38, 39 and 40 (N00024-70-C-0252)
- CVN 68-69 (N00024-67-C-0325)

9. It is understood that the timing of the payments to be made by the Navy to Newport News pursuant to paragraphs 1 to 5, inclusive, 7 and 8, shall be governed by the provisions of the existing respective contracts, adjusted in accordance with the terms of this Aide Memoire.

10. Representatives of the Navy and Newport News shall with urgency agree upon the aggregate price (at ceiling and including applicable fee) of the unadjudicated changes on the contracts referred to in paragraphs 1 through 5, inclusive, to a date the nearest possible to the one of this Aide Memoire. It is our intention and an important element of the understandings set forth in this Aide Memoire that this matter shall be settled and agreed upon not later than the date of execution of the contract modifications to be signed in implementation of this Aide Memoire. With equal urgency and simultaneously with the aforesaid contract changes, the parties shall determine and agree upon the unresolved obligations of Newport News pertaining to Insurv and guarantee items, material shortages and other related items which, according to current Navy estimates, have an approximate value of \$2 million, it being understood that the agreed upon value shall not be withheld by the Navy from the agreed value of the aforesaid contract changes or otherwise, without prejudice however to the unconditional obligation assumed by Newport News of discharging such obligations in a timely and efficient manner.

11. We have further agreed that the quantum of disallowed costs under the contracts referred to in paragraphs 1 through 5, inclusive, to the date of this Aide Memoire will be approximately \$19.4516 million, with the understanding that this figure takes into account the allowance of approximately \$1.0196 million of home office expenses (out of a total of home office expenses of approximately \$8.6093 million) and also the allowance of certain disputed pension fund costs only with respect to the contract referred to in paragraph 4, *supra* (approximately \$2.4884 million), but that such pension fund costs will be disallowed and released by Newport News with respect to the other contracts referred to in paragraphs 1, 2, 3 and 5, *supra*. State tax accruals now disallowed will be allowable as costs when actually paid by Newport News.

12. As a result of recent steps taken by representatives of the Navy and Newport News, the contract terms and conditions for the CVN-70 have been substantially settled and it is understood that, as an integral part of the implementation of the several understandings set forth herein, the parties shall execute a definitive contract on such terms and conditions.

13. Newport News will withdraw with prejudice ASBCA Docket No. 21728 and release the Navy from all further claims concerning the allowability of home office expenses which are the subject of said proceeding.

14. To contribute to the orderly management of contracts between Newport News and the Navy both parties will take all steps necessary promptly to process and negotiate, on a fully priced basis, all contract change proposals, without reservation for delay and disruption, subsequent to the date of this document.

15. All of the steps to be undertaken by the Navy are subject to the availability of appropriations.

\* \* \* \* \*

This will confirm our commitment from the outset of our discussions of this matter that the rights of the parties shall in no way be prejudiced or altered by the understandings and intentions set forth herein but that such rights shall be governed only by the documents to be subsequently executed by both parties in the implementation of these understandings. Thus, this document merely sets forth the understandings and declarations of intention which are the outcome of their lengthy discussions and which both parties expect will lead to prompt and final resolution of the matters described herein. As such, it is agreed that this document is privileged and not subject to publication, discovery or to voluntary production by either party before any court or in any other forum.

September 8, 1978.

#### ADDENDUM TO AIDE MEMOIRE

By way of clarification, it is recognized that:

A. The \$24.936 million in paragraph 1 represents an increase in the ceiling price of \$18.701 million and a separate payment of \$6.235 million.

B. The \$38.321 million in paragraph 2 represents an increase in the ceiling price of \$31.451 million and a separate payment of \$6.870 million.

C. The \$31.276 million in paragraph 3 represents an increase in the ceiling price of \$13.897 million and a separate payment of \$17.379 million.

D. The \$24.527 million in paragraph 4 represents an increase in the ceiling price of \$12.950 million and a separate payment of \$11.577 million.

E. The \$21.896 million in paragraph 5 represents an increase in the ceiling price of \$9.386 million and a separate payment of \$12.510 million.

F. The figures above are precise and will not vary with negotiated final costs.

G. The parties will negotiate settlement modifications (including releases) under these contracts similar to the release negotiated with the Navy in the DLGN 36 and 37 settlement, and Newport News will also release the impact of these contracts on other contracts. All rights of the parties regarding DLGN 41 will remain unaffected, and the rights of the parties regarding CVN 70 shall be covered exclusively by the definitized contract to be executed.

H. The reformation referred to in paragraph 7 will result in an additional escalation payment to Newport News in the amount of \$13.2 million.

I. The payments in paragraph 8 are additional payments, separate from any other payments under the contracts.

J. It is the intent of the parties that the implementing contract modifications will close out contracts (SSN-688) N00024-70-C-0269 and (SSN 686-687) N00024-69-C-307 and will reach final negotiated prices for contracts (CGN 38, 39 and 40) N00024-70-C-0252 and (CVN 68-69) N00024-67-C-0325 and on contract (SSN 689, 691, 693 and 695) N00024-71-C-0270 as specified by the contracts.

K. With respect to paragraph 10, pricing of changes (including related escalation) is conditioned upon mutual agreement, and covers all changes as of September 5, 1978. In order to delimit the unresolved obligations of Newport News, the Company's responsibility for guarantee deficiencies, Insurv items, furnishing of undelivered materials/software and resolution of other related items will be specifically defined and agreed to as of the date of the implementing modifications. Government retentions for guarantee deficiency items will be released.

L. With regard to state tax accruals, it is agreed that state taxes are allowable costs and agreements on the timing of the allowability will be reached between the Company and the contracting officer and specified in the settlement modifications and the estimated disallowances will be issued accordingly.

M. The Navy agrees that the allowability of Home Office Expense (i) for the year 1972 and forward for these contracts shall be in accordance with CAS 403 and (ii) shall be as allowed by DCAA for the years prior to 1972. Hence, Newport News will withdraw the ASBCA appeal referred to in paragraph 13.

N. With regard to the last unnumbered paragraph of the Aide Memoire and, indeed, this entire agreement, this document is tentative only and is conditioned upon implementation by means of contract modifications acceptable to both parties.

#### ATTACHMENT 2

DEPARTMENT OF THE NAVY,  
HEADQUARTERS NAVAL MATERIAL COMMAND,  
*Washington, D.C., August 15, 1978.*

MEMORANDUM FOR THE ASSISTANT SECRETARY OF THE NAVY (MANPOWER, RESERVE AFFAIRS AND LOGISTICS)

Subject: Newport News Shipbuilding and Dry Dock Company; request for correction of a mistake under Public Law 85-804; contract N00024-67-C-0325.

1. *Introduction.*—Pursuant to your request, I am submitting herewith the findings of fact and recommendations of the Navy Contract Adjustment Board with respect to the above-entitled matter. These findings and recommendations, which address whether a unilateral or a mutual mistake of fact was made, are based upon the record submitted to the Board by the Naval Sea Systems Command (NAVSEA). The Board also took into account discussions

it conducted with the Contracting Officer, the former Project Manager, representatives of DCAA, Newport News, and others. Eight years have passed since these events occurred. In many respects, the written record is sketchy and the recollections of those who played a role in the formation of the contract were sometimes vague. The Board does not believe, therefore, that it is possible to ascertain with precision the intention of the parties at the time of their agreement, and for that reason, the Board was conservative in its approach. The Board does, however, feel confident that reformation of the contract on the basis of mistake is warranted.

2. *Facts.*—By letter dated May 17, 1978, Newport News Shipbuilding and Dry Dock Company (NNS), Newport News, Virginia, has requested an increase in the price of subject contract pursuant to Public Law 85-804 and ASPR (DAR) 17-204.3 to correct a mistake made in Article 9(h) of modification PZ0041 to that instrument. Article 9(h) is reproduced in Enclosure (1). NAVSEA, in its report to the Board setting forth the facts in the matter, has expressed the opinion that a mutual mistake may have been made since “[t]he pertinent contract clause, as interpreted by the Navy, failed to accomplish the intent of the parties.” While it is presented upon alternative bases of unilateral and mutual mistake, the gravamen of the contractor’s request and the accompanying favorable NAVSEA recommendation is that subparagraph 10 of Article 9(h) of the contract failed to reflect the intent of the parties in that they both relied upon erroneous information in negotiating the amount of an escalation adjustment permitted thereunder to compensate for increases in the cost of employee fringe benefits.

3. On March 18, 1970, NNS submitted its updated proposal for definitizing the letter contract for the U.S.S. *Nimitz* at a target cost of approximately \$335.9 million. The parties had been exchanging information for approximately a year. At that time, the proposed target cost contained overhead contingencies for expected increases in NNS’s employee benefit costs above those in effect for a base period, established as the month of June 1967. Formal price negotiations commenced on May 20, 1979. During negotiations, it was apparently suggested that an additional special escalation provision be drafted to eliminate the need to include projected overhead increases for employee fringe benefits as a contingency within the target cost. By letter of May 26, 1970, NNS provided a draft escalation provision which later became subparagraphs 1 through 9 of contract Article 9(h). It does not appear that there was any discussion at that time of placing a limitation on the amounts of fringe benefits reimbursable under the contract, nor did the special escalation provision as tendered by NNS contain any such limitation. The underlying purpose of the fringe benefit escalation provision is reflected by what became the preamble to Article 9(h) itself:

“It is recognized that the contractor may during the term of this contract make changes in the scope and types of employee benefit programs, such changes becoming necessary as a result of agreements with union eligible employees or desirable to maintain the ability to hire and to retain good employees. The amounts of such changes and their effects upon this contract being indefinite, it is agreed the effects of such changes since June 1967 below the limitations set forth in subparagraph 10 herein are not included in the target cost set forth in article 7, entitled Compensation, of these special provisions but shall be reimbursed separately [outside the incentive matrix and without profit] as an escalation payment determined as follows:”

4. As a result of these discussions with respect to pricing fringe benefit escalation, NNS reduced its target cost by approximately \$11.9 million to a new target cost of \$324 million. Thereafter, on June 25, 1970, negotiations were expanded to include the *Eisenhower* and NNS proposed a two-vessel target cost of \$570 million on the same terms and conditions as were stated under its earlier *Nimitz* proposal, including the escalation adjustment provision for employee fringe benefits. The Board is advised that the two vessel target cost also reflected separate treatment of fringe benefit costs.<sup>1</sup> Navy representatives tentatively agreed to the two ship target cost figure and subsequent meetings were held to resolve all remaining

<sup>1</sup> A representative of DCAA, Newport News stated to the Board that he believed the target cost for the two ship proposal reflected approximately an \$18 million reduction. NNS has booked \$59,221,468 and received \$40,374,479 under the terms of the contract. However, there is no evidence that NNS has granted unreasonable increases in employee fringe benefits and comparison with fringe benefits offered by other shipyards indicates that NNS was consistent with industry practice.

matters, one of which was to reach final agreement on Article 9(h) of the contract. NNS executed the modification on June 30, 1970.

5. The backdrop of the Navy's desire to include a ceiling provision limiting reimbursement of fringe benefit costs may be a June 11, 1970, Defense Contract Audit Agency (DCAA) report which stated, *inter alia*:

"The current proposal to include them [fringe benefit costs] under a special escalation clause, in effect, places these fringe benefits under a separate cost-type contract. There would be very little or no contractual incentive for the contractor to control future fringe benefit costs. Even if there are other factors acting to restrain the contractor in granting fringe benefits, the proposed special escalation computations would set a potentially dangerous precedent for future Navy contracts."

Based at least in part on DCAA's objections, the previously proposed NNS clause was modified by the addition of a separate paragraph 10 (set forth in full below) which provides a \$1.25 limitation on the amount of reimbursement under the special fringe benefit escalation provision.

6. On September 14, 1970, contract N00024-67-C-0325 was amended by modification PZ0041 from a cost-reimbursement letter contract to a fixed-price incentive contract for the design and construction of both the U.S.S. *Nimitz* (CVN 68) and the U.S.S. *Eisenhower* (CVN 69) and included Article 9(h) as finally negotiated. As previously stated, this modification had been executed by Newport News on June 30, 1970, some forty days after final negotiations had commenced.

7. Article 9(h) describes the method to be used for determining quarterly escalation adjustments for employee fringe benefit programs. In short, the base month (June 1967) hourly rate of employee benefits is subtracted from the current quarter's hourly rate of employee benefits, and the difference is then multiplied by the actual direct labor hours of work on each vessel during that current quarter. It is this product that constitutes the quarterly escalation adjustment for each vessel.<sup>2</sup> However, subparagraph 10 of the clause immediately thereafter states:

"Notwithstanding the provisions of subparagraph 9 of this [Article 9(h)], the hourly employee benefit rate on which escalation adjustments shall be paid shall not exceed \$1.25 per direct labor hour charge to all product lines for sales to customers and to Plant Under Construction accounts." [Italic supplied.]

It is this provision which has been the core of the parties' disagreement since October 1970.

8. In order to determine whether the \$1.25 ceiling provision truly reflected the intent of the parties, the Board has carefully examined the documentary material of record supporting the negotiations of the provision in question. The record indicates that on June 5, 1970, a NNS employee, Mr. A. R. Myers, prepared a spread-sheet document entitled "Computation of Projected Escalation of Payroll Fringe Benefits on *Nimitz* (Basis of Target Estimate)" (hereafter the "Myers spread-sheet"). This document supported an approximate \$11.4 million reduction in *Nimitz*' target cost and became the basis for negotiation of the \$1.25 ceiling provision set forth in subparagraph 10 of Article 9(h). This is confirmed by a second contemporaneous document dated June 15, 1970, authored by another NNS official, Mr. C. E. Dart (hereafter the "Dart work-sheet"). The Dart work-sheet reflects that an approximate \$11.5 million reduction in overhead was calculated by NNS on the basis of Myers' June 5 calculations. The Myers spread-sheet reflected a constant employee benefit rate of \$1.09 for calendar years 1970 through 1973.<sup>3</sup> Meanwhile, on June 10, 1970, still a third contemporaneous document was

<sup>2</sup> The Board was unable to determine why the parties agreed to a quarterly vice annual limitation. The fringe benefit rate would fluctuate from a high in the first and second calendar quarters to a low in the third and fourth quarters due to FICA limitations. It may possibly be due to the fact that Article 9(h) is but one paragraph of the "Compensation Adjustments" clause. The remainder of the clause operates independently of actual costs.

<sup>3</sup> The Board noted that there had been an historical and annual rise in the employee benefit rate from 1967 on forward, a fact known (though not fully) to NNS at the time of negotiations. It was therefore puzzled by the fact that NNS projected a flat rate of \$1.09 through the life of the contract. A possible explanation for this, and one offered by a representative of DCAA was that NNS expected a substantive increase in production labor which would have had the effect of flattening the rate. NNS, however, reportedly experienced great difficulty in hiring and retaining skilled labor while performing the contract. This would have had the effect of driving up the fringe benefit rate. Pure mathematical calculations using the true historical rates and trends through March 1970 yielded a projected rate of over \$4.00 during the then projected period of contract performance. These calculations, of course, do not take into account the labor sensitivity of the rate.

constructed by NNS' Mr. C. T. Dickerson entitled "Increase by Quarters in Fringe Benefits Over 1967 (1967 Base Values from A. R. Myers Analysis)" (hereafter the "Dickerson spread-sheet"). Significantly, but apparently unknown and certainly not relied upon by the parties during negotiation of the \$1.25 ceiling figure, the Dickerson spread-sheet reflected a much greater employee benefit rate for the first quarter of 1970—\$1.35—a figure later adjusted to \$1.29.<sup>4</sup>

9. Subsequently, the negotiator's post-negotiation clearance of July 9, 1970, indicated the parties' reliance on the accuracy of what they both believed to be a projected fringe benefit rate of \$1.09. It stated that:

"The auditor *verified*<sup>5</sup> that since June 1967 the fringe benefit cost per man hour increased from \$0.735<sup>6</sup> to \$1.093 in 1970. This is an increase of \$0.358 per man hour in three years. The fringe benefit escalation language provides a ceiling of \$1.25 per man hour or an additional \$0.157 per man hour over the next five years to limit the liability of the Government." [Italics supplied.]

10. *Discussion.*—It is clear from the record before the Board that the parties mistakenly negotiated the \$1.25 fringe benefit limitation upon the erroneous belief that the experienced rate for the first quarter of 1970 was \$1.09. It was not. Indeed, it is now known that three months *prior* to the effective date of the contract the actual rate exceeded the \$1.25 ceiling by four cents. Had the parties at the time of negotiations known that the Myers spread-sheet was so grossly in error, it is beyond reasonable doubt that they would never have agreed to the \$1.25 limitation on reimbursement for employee fringe benefit costs.<sup>7</sup> To have done so would come " \* \* \* 'close to being a contract which no man in his senses, not under delusion, would make \* \* \* on the one hand, and as no honest and fair man would accept \* \* \* on the other' \* \* \*," *Hume v. U.S.*, 132 U.S. 393, 395 (1889). Accordingly, the Board believes that a mutual mistake was made as to a material fact existing at the time contract modification PZ0041 was executed.

11. As to determining what the parties would have agreed to but for their mutual reliance upon the foregoing mistake of fact, NNS urges, as it has since

<sup>4</sup>There may have been considerable pressure upon the parties to reach final agreement. This is borne out by a memorandum dated May 20, 1970, the very day that final price negotiations were commencing. This memorandum, written by a highly respected senior NAVSHIPS official, relates with evident frustration his attempts to convey the urgency of concluding negotiations. He states:

"(c) that negotiations for the *Nimitz* have already been postponed time and time again and that they are continuing to be delayed for no good purpose.

"(d) that continued delay in these negotiations can be expected to lead to higher actual cost of the ships since the provisions of the definitized contract will not be placed in force until the contract be signed.

"(e) that the continued delay in completing negotiations for the *Nimitz* is a matter of embarrassment to the Chief of Naval Operations, the Secretary of the Navy, the Deputy Secretary of Defense and the Secretary of Defense.

"(f) that leaders of the Senate Armed Services and Appropriations Committees have raised issues with Defense officials concerning the status of negotiations.

"(g) that the Navy is in the embarrassing position of not being able to report the results of the negotiations in the March 31 SAR report. The December SAR report had predicted the negotiations would be completed by this time."

By contrast, this same memorandum describes the painstaking manner by which the Navy and Newport News had constructed their respective ingoing positions. (The proposals and negotiations regarding the *Eisenhower* and fringe benefit escalations were yet to occur).

<sup>5</sup>Testimony adduced before this Board by a representative of the DCAA Resident Auditor, Newport News, indicates the figures had not been audited at that time (July 1970).

<sup>6</sup>The June 1967 base month was later determined to be \$0.694, possibly compounding the error.

<sup>7</sup>While it is clear the parties intended to agree to some ceiling limitation, it is also clear that the parties anticipated the clause would permit recovery of reasonable fringe benefit costs. This is borne out by the statements of those interviewed, as well as by a memorandum prepared by the former project manager and approved by the Commander, NAVSHIPS in May 1970. This document reads in part:

"*Topic.*—Establishing Base Month of June 1967 for the purposes of pricing out CVAN-68.

"*Facts.*—Increase in cost due to inflation is not an increase resulting from poor ship-building management. It is a result of operation of the economy of the country and is completely independent of the manpower, material, and time resources required to build a ship or the management of these resources.

"The effect of inflation is independent of any technical or characteristics changes which may be introduced into the ships after contracting.

"In order to provide for full recovery of growth the escalation clause will contain adjustment factors for the BLS index movements and the Contractor's experienced variation with the BLS index movements as well as the inflationary effect of fringe benefits on overhead rate." [Italics supplied.]

this issue first arose, that the \* \* \* \$1.25 amount was a limitation on the amount of adjustment, i.e., the difference between the base and the total fringe benefit amount, and was not a limitation on the total amount of the fringe benefit reimbursement.<sup>9</sup>

In its May 17, 1978 application for relief NNS has also proffered the alternative explanation that: \* \* \* the \$1.25 limitation may apply neither to the *total amount* nor to the *difference*, but rather to the *base* upon which escalation is to be added.

NNS continues by theorizing that if there were no effective ceiling on these escalation payments the company would be entitled to approximately \$19,028,283 in additional reimbursement under the contract.

12. The Board considers both of these propositions to be without merit and in direct conflict with the plain language and operation of the contract provision in question.<sup>9</sup> Two key Navy representatives present at the negotiations recalled the intent of the mistakenly-developed \$1.25 figure was to place a limitation on the rate on which quarterly adjustments would be paid. The purpose of the ceiling provision was said to provide a contractual incentive for NNS to control fringe benefit costs. This would be consistent with the DCAA recommendation quoted earlier that there was a need to contractually control future fringe benefit costs. As indicated previously, both parties relied upon the Myers spreadsheet in negotiating the \$1.25 limitation. This document indicates that the rate for 1968 was \$0.76 and the rate for 1969 was \$0.93 while the rate predicted for 1970 through 1973 was \$1.09. One of the Navy representatives who participated in the negotiations stated the \$1.25 figure was probably established, at least in part,<sup>10</sup> by adding \$0.16 to the NNS predicted rate of \$1.09, which was equal to the previous increase between \$0.93 and \$1.09 found in the Myers spreadsheet.

13. Since, in fact, the actual adjusted rate for the first quarter of 1970 was \$1.29,<sup>11</sup> the Board believes it appropriate to adopt the same methodology which may have been used by the parties in 1970 to establish an adjusted ceiling provision which will now correct the effect of their mistake. In the Board's view the record affords no better basis for carrying out the parties' apparent intent.<sup>12</sup> Thus, by applying the method of calculation apparently used in 1970, we conclude that the ceiling provision would probably have been \$1.65 but for the parties' mistaken reliance upon the accuracy of the first quarter rate of \$1.09.<sup>13</sup>

G. R. HENRY,  
Captain, SC, USN,

Chairman, Navy Contract Adjustment Board.

Enclosure.

<sup>9</sup> On October 1, 1970, NNS submitted its first invoice seeking reimbursement for costs of employee fringe benefits of \$3,359,061 through September 1970. The Board has taken note of the fact the NNS calculations did not reflect recognition of the \$1.25 ceiling contained in Article 9(h) of the contract.

<sup>10</sup> We cannot help but question the seriousness of NNS's eleventh-hour interpretation when, concededly, there is no company representative who has more than the vaguest recollection of this negotiation in 1970. An internal memorandum dated July 23, 1975 (furnished to the Navy on July 30, 1975), from NNS's corporate legal department states: "The specific intent of the negotiators for application of the limitation is difficult to reconstruct as there is no one in the company who remembers any discussion of the specific application."

Moreover, NNS has not represented otherwise in its May 17, 1978 application or in any other documentation before this Board.

<sup>11</sup> This same person also stated there may have been other considerations which he did not recall in reaching the agreed upon ceiling as well. No one else interviewed had any recollection of how the \$1.25 ceiling was calculated.

<sup>12</sup> While the Dickerson spread-sheet projects a rate of \$1.35, and the actual adjusted rate for June 1970 was \$1.33, the June rate would not have been known until at least mid-July 1970 under normal circumstances, according to DCAA. The Board believes that had the Dickerson projection been proposed, an audit would have been likely, since it represents such a significant increase over the June 1967 base. For this reason, the March 1970 rate of \$1.29, which DCAA states would have been available, is recommended as the base point for reformation of the clause. This quarter's rate, though in error, was also the one apparently selected by NNS.

<sup>13</sup> Because eight years have passed since the negotiations of Article 9(h), much of the oral evidence presented to the Board has been vague. Given this confused record, the Board attempted to reconstruct the intent of the parties insofar as it now can be ascertained, while at the same time applying general principles of equity in search of a result that would be fair to both parties. The Board cannot be certain, of course, that the parties would have used this methodology had the true historical rates been known.

The difference between the 1969 rate of \$0.93 and the actual adjusted rate of \$1.29 for the first quarter of 1970 is \$0.36. The recommended ceiling figure is derived by adding \$0.36 to \$1.29 for a corrected ceiling rate of \$1.65. This would increase the Government's obligation under the contract by approximately \$13,250,156, subject to possible increase upon resolution of certain request for equitable adjustment.



**ARTICLE 9(h). ESCALATION ADJUSTMENT FOR CHANGES IN EMPLOYEE BENEFIT PROGRAMS**

It is recognized that the contractor may during the term of this contract make changes in the scope and types of employee benefit programs, such changes becoming necessary as a result of agreements with union eligible employees or desirable to maintain the ability to hire and to retain good employees. The amounts of such changes and their effects upon this contract being indefinite, it is agreed the effects of such changes since June 1967 below the limitations set forth in subparagraph 10 herein are not included in the target cost set forth in article 7, entitled "Compensation," of these special provisions but shall be reimbursed separately as an escalation payment determined as follows:

1. The total costs recorded in the contractor's accounts for the below-listed employee benefits during the year 1967 shall be determined.

- a. Allowed time—
- b. Vacation and holiday
- c. Sick leave
- d. Workmen's compensation and public liability
- e. F.I.C.A.
- f. Unemployment compensation tax
- g. Disability payments
- h. Group insurance and hospitalization
- i. Pension plan costs
- j. Thrift plans

2. The direct labor hours during the year 1967 charged to all product lines for sales to customers and to plant under construction accounts shall be determined.

3. The average cost of employee benefits per direct labor hour during 1967 shall be determined by dividing total costs in 1 above by direct labor hours in 2 above.

4. At calendar quarter intervals beginning with the calendar quarter ending 31 March 1968, the increased costs of employee benefits allocable to each vessel under this contract shall be determined in accordance with the method described in subparagraphs 5 through 7 below.

5. The total costs recorded during the current calendar quarter period in the contractor's accounts for the employee benefits listed in 1 above plus any additional benefits programs added since 1967 shall be determined. Any adjustments made by the contractor to accrued fringe benefit costs for prior accounting periods shall be included as adjustments of the calendar quarters in which the fringe benefit cost accrual adjustments are recorded in the contractor's accounts.

6. The direct labor hours during the current calendar quarter period charged to all product lines for sales to customers and to plant under construction accounts shall be determined.

7. The average cost of employee benefits per direct labor hour during the current calendar quarter period shall be determined by dividing total costs in 5 above by direct labor hours in 6 above.

8. The average costs per direct labor hour during the 1967 base period, computed in 3 above, shall be deducted from the corresponding average during the current calendar quarter period, computed in 7 above.

9. The quarterly adjustment under this paragraph (h) shall be the product of:

- a. The difference between 3 and 7, computed in 8 above, and
- b. The actual direct labor hours of work on each vessel under this contract during the current calendar quarter period.

Adjustments under this paragraph (h) shall be set forth in a supplemental agreement, which shall constitute the amount of adjustment for each vessel for the quarterly period involved.

10. Notwithstanding the provisions of subparagraph 9 of this paragraph (h), the hourly employee benefit rate on which escalation adjustments shall be paid shall not exceed \$1.25 per direct labor hour charged to all product lines for sales to customers and to Plant Under Construction accounts.

11. No payment shall be made under this paragraph (h) on account of changes in the cost of employee benefit programs listed in subparagraph 1 above to the extent that such changes result from changes in the law subsequent to the date of the signing of this contract, the effect on this contract of such changes being provided for under the article entitled "Equitable Adjustments for Changes in Law Having an Impact on Labor Cost."

THE ASSISTANT SECRETARY OF THE NAVY,  
MANPOWER, RESERVE AFFAIRS AND LOGISTICS,  
Washington, D.C., October 5, 1978.

HON. WALTER F. MONDALE,  
President of the Senate,  
Washington, D.C.

DEAR MR. PRESIDENT: The following report is made to advise you of the settlement agreement executed today, settling the outstanding claims against the Navy by Newport News Shipbuilding and Dry Dock Company as well as other open issues.

Newport News Shipbuilding and Dry Dock Company submitted claims in 1975 and 1976 concerning five contracts with the Navy which request increases in ceiling prices and in other compensation under the contracts as follows:

	<i>Millions</i>
Contract N00024-70-C-0269 (SSN 688) .....	\$78.5
Contract N00024-71-C-0270 (SSN 689, 691, 693, 695) .....	191.6
Contract N00024-70-C-0252 (CGN 38, 39, 40) .....	159.8
Contract N00024-67-C-0325 (CVN 68, 69) .....	221.3
Contract N00024-69-C-0307 (SSN 686, 687) .....	90.4

The Navy Claims Settlement Board (NCSB) has thoroughly examined and evaluated these claims and the Navy and the Company have reached settlements on these claims, as well as other outstanding open issues. As a result of the settlement, the following total adjustments to the contracts are being made:

Contract N00024-70-C-0269 (SSN 688) .....	\$27,053,867
Contract N00024-71-C-0270 (SSN 689, 691, 693, 695) .....	41,662,137
Contract N00024-70-C-0252 (CGN 38, 39, 40) .....	34,232,569
Contract N00024-67-C-0325 (CVN 68, 69) .....	40,227,000
Contract N00024-69-C-0307 (SSN 686, 687) .....	21,898,378

In addition to that portion of these amounts determined valid for payment as a result of the Navy Claims Settlement Board evaluation of the claims, within the terms of the existing contracts, these adjustments included \$2.5 million in additional compensation under Public Law 85-804 on each of the contracts, with the exception of Contract N00024-69-C-0307, in view of the complete release given by the Company and various other elements of the overall settlement of open issues. Contract N00024-67-C-0325 for the CVN 68/69 has also been reformed under Public Law 85-804 by correcting a mutual mistake concerning the fringe benefits clause in said contract. This reformation increases the Government's obligations by approximately \$13.2 million and said amount is reflected in the adjustments stated above.

The entire settlement is subject to the availability of appropriations.

If desired, I am prepared to respond to any questions regarding this determination.

Sincerely,

EDWARD HIDALGO.

THE ASSISTANT SECRETARY OF THE NAVY,  
MANPOWER, RESERVE AFFAIRS AND LOGISTICS,  
Washington, D.C., October 5, 1978.

HON. THOMAS P. O'NEILL, Jr.,  
Speaker of the House of Representatives,  
Washington, D.C.

DEAR MR. SPEAKER: The following report is made to advise you of the settlement agreement executed today, setting the outstanding claims against the Navy by Newport News Shipbuilding and Dry Dock Company as well as other open issues.

Newport News Shipbuilding and Dry Dock Company submitted claims in 1975 and 1976 concerning five contracts with the Navy which requests increases in ceiling prices and in other compensation under the contracts as follows:

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Contract N00024-67-C-0325 (CVN 68, 69) .....	221.3
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Contract N00024-71-C-0270 (SSN 689, 691, 693, 695) -----	41, 662, 137
Contract N00024-70-C-C0252 (CGN 38, 39, 40) -----	34, 232, 569
Contract N00024-67-C-0325 (CVN 68, 69) -----	40, 227, 000
Contract N00024-69-C-0307 (SSN 686, 687) -----	21, 898, 378

In addition to that portion of these amounts determined valid for payment as a result of the Navy Claims Settlement Board evaluation of the claims, within the terms of the existing contracts, these adjustments included \$2.5 million in additional compensation under Public Law 85-804 on each of the contracts, with the exception of Contract N00024-69-C-0307, in view of the complete release given by the Company and various other elements of the overall settlement of open issues. Contract N00024-67-C-0325 for the CVN 68/69 has also been reformed under Public Law 85-804 by correcting a mutual mistake concerning the fringe benefits clause in said contract. This reformation increases the Government's obligations by approximately \$13.2 million and said amount is reflected in the adjustments stated above.

The entire settlement is subject to the availability of appropriations.

If desired, I am prepared to respond to any questions regarding this determination.

Sincerely,

EDWARD HIDALGO.

STANDARD FORM 30, JULY 1966		AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		PAGE 1 OF 12
GENERAL SERVICES ADMINISTRATION REG. PROC. REG. (41 CFR) 1-16.101				
1. AMENDMENT/MODIFICATION NO. - PCC 067		2. EFFECTIVE DATE See Attached	3. RESOLUTION/PURCHASE RESOLUTION NO.	4. PROJECT NO. (If applicable)
5. ISSUED BY Chief of Naval Material (MRT COCK) Department of the Navy Washington, D. C. 20360	CODE N00024	6. ADMINISTERED BY (If other than block 5) Supervisor of Shipbuilding Conversion & Repair, USN Newport News, Virginia 23607		CODE N62793
7. CONTRACTOR NAME AND ADDRESS Newport News Shipbuilding & Dry Dock Company Newport News, Virginia 23607 <small>(Draw, city, county, state, and ZIP Code)</small>	CODE 43689	FACILITY CODE	8. AMENDMENT OF SOLICITATION NO. DATED _____ (See block 9)	
			9. MODIFICATION OF CONTRACT/ORDERS NO. N00024-67-C-0325 DATED 67MAR31 (See block 11)	
9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS <input type="checkbox"/> The above numbered solicitation is amended as set forth in block 12. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods: (a) By signing and returning _____ copies of this amendment; (b) by acknowledging receipt of this amendment on each copy of the offer submitted; or (c) by separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
10. ACCOUNTING AND APPROPRIATION DATA (If required)				
11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS (a) <input type="checkbox"/> This Change Order is issued pursuant to _____ The changes set forth in block 12 are made to the above numbered contract/order. (b) <input type="checkbox"/> The above numbered contract/order is modified to reflect the administrative charges (such as changes in paying office, appropriation code, etc.) set forth in block 12. (c) <input checked="" type="checkbox"/> This Supplemental Agreement is entered into pursuant to authority of _____ the provisions of the contract and P.L. 85-804 If made for the above numbered contract as set forth in block 12.				
12. DESCRIPTION OF AMENDMENT/MODIFICATION See Attached				
Except as provided herein, all terms and conditions of the document referenced in block 8, as herebefore changed, remain unchanged and in full force and effect.				
13. <input type="checkbox"/> CONTRACTOR/OFFERER IS NOT REQUIRED TO SIGN THIS DOCUMENT <input checked="" type="checkbox"/> CONTRACTOR/OFFERER IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 3 COPIES TO ISSUING OFFICE				
14. NAME OF CONTRACTOR/OFFERER C. E. DART		17. UNITED STATES OF AMERICA BY: <i>F. F. Manganais</i> (Signature of Contracting Officer)		
15. NAME AND TITLE OF SIGNER (Type or print) C. E. DART Executive Vice President Newport News Shipbuilding		16. DATE SIGNED 5 OCT 1966	18. NAME OF CONTRACTING OFFICER (Type or print) F. F. MANGANAI, RADM, USN Chairman, Navy Claims Settlement Board	
				19. DATE SIGNED 0311 66

833607

Description of ModificationApplicable Ships: CVN 68 and CVN 69

WHEREAS, the parties consider all work completed under this contract, except as otherwise specifically agreed below, and the vessels constructed hereunder have been delivered to the Government; and

WHEREAS, the Contractor has submitted claims and requests for equitable adjustment in the contract price pursuant to various provisions of this contract and the Contracting Officer, upon analysis of the said claims and requests for equitable adjustment, has determined them to be meritorious in certain respects; and

WHEREAS, the parties have agreed that the Contract Delivery Dates of CVN 68 and CVN 69 shall be the actual delivery dates without allocation of responsibility; and

WHEREAS the parties have agreed to the resolution of other outstanding issues in addition to the settlement of the requests for equitable adjustment; and

WHEREAS, the Government has agreed to adjust the pricing structure and delivery dates of the contract and in exchange for these and other agreements contained herein the Contractor has agreed to give a release as set forth in paragraph 9 below, subject to the reservations set forth in paragraph 10 below; and

WHEREAS, differences exist between the parties as to the computation of escalation; the Contractor nevertheless agrees that the Adjustments to Compensation in this modification include any and all escalation to which he is entitled by reason of the adjustments contained in this modification; and

WHEREAS, differences exist between the parties as to: (1) computation, allowance and allocation to the Contractor of General and Administrative costs of Tenneco Inc. and Tenneco Corporation; and (2) computation, allowance and allocation of pension costs of the Contractor including the amount contributed to the TENNECO Annuity Plan, the premiums paid to Tennessee Life Insurance for reversionary benefits and the allocation of identified actuarial gains and losses directly to the Contractor; and the parties intend that the total final negotiated cost of this contract as hereinafter established includes any and all consideration for (1) and (2) above with respect to this contract; and

WHEREAS the disputed matters referenced in the immediately preceding paragraph have been resolved under this contract and every other Contract between the parties by agreement that Home Office Expense for the year 1972 and forward shall be in accordance with CAS 403 and shall be allowed as heretofore approved by DCAA for the years prior to 1972; the Contractor's appeal to the Armed Services Board of Contract Appeals docketed as No. 21625 shall be withdrawn with prejudice; and the Pension Costs referred to in the immediately preceding paragraph which were previously included in provisional disallowances by DCAA, suspended, or disapproved shall be allowed for this contract and disallowed for all other contracts between the parties; and

WHEREAS, differences exist between the parties as to the allowability of State tax accruals on this and other contracts; the parties intend that accrued amounts now suspended or disapproved by DCAA will be allowable for this contract to the extent that such amounts will be payable for the year in which this modification becomes effective, and the total final negotiated costs of this contract as hereinafter established include any and all consideration for State tax accruals; and the parties intend that this issue shall be resolved for all other contracts using the same principles, i.e., state taxes accrued for payment in a current year are allowable if payable by the contractor in the following year or at the time the tax return is filed for the current year; and

WHEREAS, the Assistant Secretary of the Navy, by Memorandum of Decision dated October 5, 1978, has determined that, as part of this agreement, it will facilitate the national defense to invoke P.L. 85-804 to modify this contract by including \$2,500,000 as part of the "Adjustments to Compensation: in paragraph 5 below;

WHEREAS, pursuant to Modification A00066 the Contractor has received a provisional increase in contract price in the amount of \$1,500,000 for reasons identified in that modification; and

WHEREAS, pursuant to Modifications AR 25, AU 43 and AY 63 the Contractor has received interim payments totaling \$6,803,370 for reasons identified in said modifications; and

WHEREAS, the Contractor, by letter of 17 May 1978, requested that the Government, pursuant to Public Law 85-804 and Section 17 of the Armed Services Procurement Regulations, amend the contract to authorize compensation due to increases in the amount incurred for fringe benefit escalation costs; and

WHEREAS, by decision dated 15 August 1978 , the Navy Contract Adjustment Board recommended an amendment to the contract providing compensation in the amount of \$13,200,000; and

WHEREAS, with respect to the paragraph immediately above, in the exercise of the secretarial discretion vested by P.L. 85-804, the Assistant Secretary of the Navy (M,RA & L) has authorized an amendment to the contract providing compensation in the amount of \$13,200,000; and said amount is included as part of the "Adjustments to Compensation" in paragraph 5 below; and

WHEREAS, the Government has asserted or may assert claims for non-correction of deficiencies and/or noncompletion of contract work; and the parties desire to fully and finally settle said claims as part of the price adjustment established in this modification; and

WHEREAS, the Government has asserted or may assert claims for correction of Contractor-responsible deficiencies arising during the guaranty periods of the vessels and the parties desire to fully and finally settle said claims as part of the price adjustment established in this modification; and

WHEREAS, the parties have agreed on an adjustment in the contract price by reason of the foregoing matters and in accordance with the provisions of Article 8, Incentive Price Revision (Firm Target), the total final negotiated cost, the adjustment for profit and the final contract price have been established and determined, all of the foregoing as hereinafter set forth; and

WHEREAS, the parties have agreed to the full and final settlement hereinafter described;

NOW, THEREFORE, the parties hereto agree:

1. Article 6, Delivery of Completed Vessels, is hereby modified as follows:

<u>SHIP</u>	<u>DATE</u>
CVN 68	11 April 1975
CVN 69	12 September 1977

2. The following are hereby fully and finally settled:

(a) All claims of the Contractor under this contract for adjustment under Article 9, Compensation Adjustments (Labor and Material) and Article 27, Equitable Adjustments For Changes In Law Having An Impact On Labor Cost. By reason of the adjustments to compensation made and set forth in paragraph 5.(a) of this Modification, the amount of the interim payment effected by Modifications AR 25, AU 43, AY 63, and P00066 are reduced to zero.

(b) All (1) changes, (2) HMRs, (3) FMRs, (4) letters of direction, and (5) requests for proposals under this contract.

(c) All claims of the Contractor under this contract for compensation under Clause 36, Federal, State, and Local Taxes.

(d) Any and all liabilities which are remised, released and discharged under paragraph 9 below subject to the reservations set forth in paragraph 10 below.

(e) Any claims of the Contractor under this contract relating to (1) computation, allowance and allocation to the Contractor of General and Administrative costs of Tenneco Inc. and Tenneco Corporation; and (2) computation, allowance and allocation of pension costs of the Contractor including the amount contributed to the TENNECO Annuity Plan, the premiums paid to Tennessee Life Insurance for reversionary benefits and the allocation of identified actuarial gains and losses directly to the Contractor.

(f) Any and all of the following liabilities of the Contractor to the Government, express or implied, whether known or unknown, from which the Government hereby releases and forever discharges the Contractor, subject to the reservations in paragraph 10 below.

(1) Under Clause 6, Inspection, Clause 5, Guaranty Period, and other provisions of this contract for non-correction of deficiencies and noncompletion of contract work; and

(2) For equitable reduction of the contract price of this contract, for reimbursement of Government costs under this contract, for disallowance of Contractor costs under this contract, or for money damages arising from the performance of work of this contract; all of the foregoing based upon acts or omissions (including negli-



gence) of the Contractor under this contract, which such acts or omissions occurred prior to the effective date of this modification.

3. Pursuant to Clause 19, Final Settlement, the Contract is hereby finally settled, subject to the reservations set forth in paragraph 10 below.

4. (a) Under the authority of the Act of August 28, 1958, as amended, (Public Law 85-804); 72 Stat. 972, as amended by 87 Stat. 605 (1973); 50 U.S.C. 1431-1435, as amended, and Executive Order 10789 of 14 November 1958 (23 Fed. Reg. 8897) as amended by Executive Order 11051, dated 27 September 1962, Executive Order 11382 of 28 November 1967, and Executive Order 11610 of July 22, 1971, and other applicable statute law and regulation, and in order to facilitate the national defense and in consideration of the mutual covenants of the parties, it is agreed that \$2,500,000 be included as part of the "Adjustments to Compensation" in paragraph 5, and such amount is included. The following modifications are made to the contract:

(i) Clause 26 of the General Provisions entitled "Examination of Records" is deleted in its entirety and the ASPR 7-104.15 Clause entitled "Examination of Records by Comptroller General (1975 JUN)" is substituted therefor.

(ii) Clause 45 of the General Provisions entitled "Equal Opportunity" is deleted in its entirety and the ASPR 7-103.18(a) Clause entitled "Equal Opportunity (1976 JUL)" is substituted therefor.

(b) Pursuant to the recommendation of the Contract Adjustment Board and the decision of the Assistant Secretary of the Navy (MRA&L) to accept that recommendation, \$13,200,000 is included as part of the "Adjustments to Compensation in paragraph 5.

5. (a) The following adjustments are made:

(1) Equitable Adjustment in Contract Price:

Target Cost	\$ 10,568,000	Increase
Target Profit	\$ 1,057,000	Increase
Target Price	\$ 11,625,000	Increase
Ceiling Price	\$ 12,950,000	Increase

(2) Adjustments to Compensation: These are adjustments not reflected in (1) above which are being made separately from the adjustments in (1) above so as not to affect the Contractor's profit or loss otherwise determined under Article 8, Incentive Price Revision (Firm Target). The Contractor agrees that these adjustments include any and all escalation to which he is entitled by reason of the adjustments contained in this modification:

\$ 27,277,000 Increase

(b) By reason of all adjustments to date, including the above adjustments, the revised contract pricing structure is:

Target Cost	\$ 629,733,656
Target Profit	\$ 75,017,284
Target Price	\$ <u>704,750,940</u>
Ceiling Price	\$ <u>831,323,934</u>

(c) The Total Final Negotiated Cost of performing this contract is hereby established pursuant to Article 8, Incentive Price Revision (Firm Target), as

\$ 770,156,872

(d) Pursuant to Article 8, Incentive Price Revision (Firm Target), the "Adjustment for Profit" is established as follows:

Target Cost	\$ 629,733,656
Total Final Negotiated Cost	\$ <u>770,156,872</u>
Underrun/Overrun)	\$ <u>(140,423,216)</u>
Target Profit	\$ <u>75,017,284</u>
Adjustment to Target Profit Based on Article 5	\$ <u>( 14,766,146)</u>
Adjustment for Profit	\$ <u>60,251,138</u>

(e) Pursuant to Article 8, Incentive Price Revision (Firm Target), the "Total Final Price" is established as follows:

Total Final Negotiated Cost	\$ <u>770,156,872</u>
Adjustment for Profit	\$ <u>60,251,138</u>
Adjustments to Compensation (including adjustments pursuant to Clause 36, Federal, State, and Local Taxes and Articles 9 and 27)	\$ <u>194,990,705</u>
Total Final Price	\$ <u>1,025,398,715</u>

6. Upon execution of this modification, the parties will enter into a stipulation whereby the appeal designated as ASBCA No. 21625 will be dismissed with prejudice, subject to reinstatement only in the event that all payments required by this modification are not paid to the Contractor.

7. Notwithstanding anything else to the contrary in this contract, there shall be no contract withholdings or retainages by the Government of any kind for the CVN 68 and CVN 69.

8. Notwithstanding anything else in this modification, the rights of the parties regarding CVN 70 shall be covered exclusively by the definitized contract to be executed.

9. Release

a. As used in Paragraph 9.

(1) "Events" refer to any other contract modifications, any Government breach, any Government tort, any change orders, any stop work orders, any suspensions of work, any Government actions or omissions pertaining to Government property or information, and any other occurrences, actions or omissions.

(2) "Covered Events" refers to Events occurring before the date set forth in Block 19 of SF 30 (page 1 of this modification) whether formal or constructive, and whether known or unknown to either or both of the parties as of the date

set forth in Block 19 of SF 30 (page 1 of this modification) all of which events arise out of, under, or are in any manner connected with:

(i) this contract; or

(ii) any other Government contract (with this or any other Contractor) or contract between the Contractor and any third party.

(3) "CVN 68/69 Events" refers to Events occurring before the date set forth in Block 19 of SF 30 (page 1 of this modification) whether formal or constructive, and whether known or unknown to either or both of the parties as of the date set forth in Block 19 of SF 30 (page 1 of this modification), but only to the extent such events both (i) arise out of or under this contract, and (ii) impact other contracts solely by reason of their impact on this contract.

b. In consideration of the provisions of this modification, the Contractor, for itself, its successors, assigns, vendors, suppliers and subcontractors, hereby remises, releases and forever discharges the Government, its officers, agents, and employees from (i) any and all entitlement of the Contractor to equitable adjustment of the contract price and delivery schedule of this, and only this, contract by reason of Covered Events, (ii) any and all liabilities to the Contractor for money damages and/or other relief for the impact of Covered Events upon this, and only this, contract, (iii) any and all entitlement of the Contractor to equitable adjustment of the contract price and delivery schedules of any other Government contract or contract between the Contractor and any third party by reason of SSN 688 events, and (iv) CVN 68/69 events, and (iv) any and all liabilities to the Contractor for money damages and/or other relief for the impact of CVN 68/69 Events upon any other Government contract or contract between the Contractor and any third party.

c. (1) The Contractor hereby confirms and acknowledges that in agreeing to the terms of this modification, it has considered and made full allowance for any and all costs under, and other impacts upon (i) this contract by reason of Covered Events and (ii) any other contract with the Government and with any third party by reason of CVN 68/69 Events; whether or not such costs and other impacts are known or unknown or foreseeable or unforeseeable as of the date set forth in Block 19 of SF 30 (page 1 of this modification) whether or not such costs and other impacts have been discussed with, or for any reason reserved for future discussion with, the Government, or have

been made the basis for other assertion of claims or requests for equitable adjustment and whether or not such costs or other impacts were, or are, incurred and sustained, respectively, before or after the date set forth in Block 19 of SF 30 (page 1 of this modification).

(2) The term "costs" as used in subparagraph (1) immediately above include, but are not limited to:

- (i) direct labor and material costs ("hardcore"),
- (ii) delays,
- (iii) disruptions, dislocations, acceleration, and inefficiencies in performance,
- (iv) interest costs and any other consideration for financing,
- (v) claim preparation costs, requests for equitable adjustment preparation costs, and
- (vi) overhead costs.

10. Notwithstanding any other provision of this modification, the following rights are hereby reserved, it being expressly agreed that the parties do not thereby acknowledge liability therefor:

(a) All rights and entitlement which the Government may have against the Contractor founded upon P.L. 87-653 to the extent that Certificates of Current Cost and Pricing Data have been provided in connection with this modification; and 31 U.S.C. 231; 18 U.S.C. 286; 18 U.S.C. 287; and 18 U.S.C. 1001.

(b) All rights and obligations of the parties relating to the CGN 41, except that the release in paragraph 9 above includes all costs, as defined in paragraph 9.c.(2), incurred upon the CVN 68 and 69 resulting from events occurring on the CGN 41.

(c) All rights of the Contractor under the following provisions of the contract:

- (i) "Insurance - Property Loss or Damage - Liability to Third Persons".
- (ii) "Additional Insurance Provisions."

(iii) "Nuclear Risk - Indemnification Under Public Law 85-804."

(d) All rights and liabilities of the parties arising under the contract articles, if any, or otherwise which relate to reproduction rights, patent infringements, inventions, applications for patent and patents, including rights to assignments, invention reports, and licenses, and in covenants of indemnity against patent risks.

(e) All rights and liabilities of the parties with respect to the future care and disposition by the Contractor of Government property remaining in his custody.

(f) All rights the Contractor may have to royalty payments under the Contract provision entitled "Value Engineering Incentive."

(g) All rights and obligations of the parties relating to Contractor-acquired material made obsolete or excess as a result of contract changes as specifically set forth below:

(i) Material made obsolete or excess as a result of contract changes has been identified in change pricing proposals submitted to the Government. The Contractor shall provide to the Government any such material which has been so identified but not disposed of pursuant to instructions from the Government; provided if any such material is not available, the Contractor may substitute equivalent material or pay the original purchase price of the material to the Government.

(ii) The Government shall provide disposition instructions for the material described in subparagraph (i) above, and the Contractor shall dispose of such material in accordance with such instructions. The Contractor shall be reimbursed by the Government for the cost, plus a reasonable profit, of such disposition.

(h) With respect to CVN 68 and CVN 69 all rights of the parties pertaining only to the undelivered software items specifically identified in Attachment "A".

(i) With respect to CVN 69, all rights of the parties pertaining only to the undelivered materials specifically identified in Attachment "B".

(j) With respect to CVN 69, all rights and obligations relating to DeSanno valves.

(k) All rights and obligations of the parties relating to the items listed in Attachment "C", provided the Contractor shall accumulate costs incurred on account of these items, and if such costs are determined to not have been included in the total estimated contract cost set forth in the DD 633-6 form provided in connection with this modification, the parties will, at the time of completion, increase the total final negotiated cost of this contract by an amount equal to such costs.

11. Promptly upon effectiveness of this modification and the submission of proper invoices, the Government shall make the payments required under the terms of this contract as modified herein. If such payment is not made within 60 days of the effectiveness of this modification, the Contractor shall have the right to declare this modification to be of no force and effect and the parties shall be restored to their respective rights and remedies existing prior to the execution of this modification.

12. (a) The parties hereto agree that this modification shall become effective only upon receipt by the Contractor of written notice by the Contracting Officer that appropriations have been obligated to this contract in an amount sufficient to fund fully the Government's obligations under this contract, including the obligations provided for in this modification. In any event, should such notice not be given by March 31, 1979, neither party shall be bound by the terms contained herein.

(b) Modification P00037 to Contract N00024-70-C-0252, Modification P00014 to Contract N00024-69-C-0307, Modification P00036 to Contract N00024-70-C-0269, Modification P00026 to Contract N00024-71-C-0270, Modification P00067 to Contract N00024-67-C-0325, and Modification P00028 to Contract N00024-68-C-0355 reflect various elements of an overall settlement of a number of Navy and Contractor issues, and, as such, are inseparably related to each other. It is specifically agreed that the effectiveness of each individual modification is conditioned upon the execution and effectiveness of all of the modifications identified above.

13. The parties agree that notwithstanding the contingent nature of this modification as described in paragraph 12 above, the Government will promptly release all contract withholdings and retainages. If the modification does not become effective the payments made shall be considered provisional in nature and shall be subject to repayment, if appropriate, to the Government on final settlement of the contract.

LIST OF CDRL ITEMS INCOMPLETE

<u>Item</u>	<u>Title</u>	<u>NNS Status</u>
G036	Final working drawings	99% complete - EID 10-31-78 (215036, 2350-186, 6002-26, 6301-81, 6450-206, 6475-43, 6475-44, 6555-86, 6750-58, 6750-59)
G039	Ship plan index	Final dist. - EID 10-31-78
G071	Camera ready copy for final publications printed by NPPSO	Nuclear - 1 manual - EID 11-30-78 to NPPSO for printing seal weld machine 0989-063-2000 Nonnuclear - 3 manuals 0905-515-9060 - Ship Information Book Vol. 2, Part 3 - Sewage Ejection to NPPSO for printing 7-20-78. (See item G090 below.)  0935-015-0010 - Dry cleaning system MDL22CO - To SOS for technical approval 11-1-78.  0920-114-6010 - Hoist, bridge crane & ... for weapon handling system - awaiting camera-ready copy from vendor.  Changes: 0945-0111-4011 - Purifier air ref. - awaiting camera-ready copy from vendor.  0947-155-5011 - Pump main feed - reviewing additional change for possible incorporation into previously approved change No. 1.  0947-159-5011 - Fire pump turbine drive - requested camera-ready copy from vendor 9-21-78.  0948-071-201A - Valve cntl CAT-CKLM - To SOS for printing approval 8-28-78.



<u>Item</u>	<u>Title</u>	<u>NNS Status</u>
G090	Ship Information Book (change pages)	To NPPSO for printing - NN ltr. 599H-216/2-2, 7-20-78.
F180 G180	Statement of costs incurred and estimate of additional costs	In process.
F183 G183	Surplus material report	As soon as possible.
G191	Aircraft El. Manual (change pages) Preliminary - Vol. 1 0983-002-4011, and Vol. 2 0983-002-402A	To SOS for technical approval 11-30-78.
G192	Aircraft El. Manual Final (camera-ready copy) change pages	

## Attachment B

1. "Hull 0599H Entire CF Shortage Report, Job T02680," dated September 28, 1978, Part I OSI (Operating Space Items) 30 pages, Part II SRI (Storeroom Items) 596 pages, corrected as follows:

## Changed From CF to GF

1. 00-119-8768	1 each
2. 00-228-5506	1 each
3. 00-250-4797	1 each
4. 00-332-8384	1 each
5. 00-474-5064	1 each
6. 00-901-3968	1 each
7. 01-016-6711	2 each
8. 01-019-5491	1 each
9. LL-HDA-N967	1 each
10. LL-HDA-N973	1 each
11. LL-HDY-1074	1 each
12. 00-106-1249	1 each
13. 00-107-0656	1 each
14. 00-111-1679	1 each
15. 00-111-1682	1 each

1. MICROFILM OF REACTOR PLANT DRAWINGS FOR CVN 69 (SHIP SPECIFICATION 9020-1-i-ALL EXCEPT RPPY IN THE TABLE).
2. MAIN COOLANT LOOP STOP VALVE HANDLING GEAR (HMR331)
3. HANDLING GEAR FOR REACTOR REFUELING HATCH - SHIPBUILDER INTENDS TO RETAIN AND USE IN CONSTRUCTION OF CVN 70.
4. HANDLING GEAR FOR PRESSURIZER SHED ACCESS CLOSURE LOCATED IN COOLANT TURBINE GENERATOR ROOM - SHIPBUILDER INTENDS TO RETAIN AND USE IN CONSTRUCTION OF CVN 70.
5. EQUIPMENT FOR ALTERNATE DECAY HEAT REMOVAL REACTOR WATER LEVEL INDICATION. SHIPBUILDER USED FOR TESTING.
6. REPLACEMENT GLANDS FOR CVN 69 AUXILIARY MACHINERY COOLING WATER PUMP #2 - HMR 361 AND NEWPORT NEWS MEMO TO FILE A4W/A1G 32-1 OF SEPTEMBER 11, 1978.
7. SPARE O-RINGS FOR REPLACEMENT PUMP GLANDS UNDER HMR 361 FOR CVN 68 AND SPCC.

ATTACHMENT C

STANDARD FORM NO. 70, JULY 1966 GENERAL SERVICES ADMINISTRATION FD-302 (REV. 6-17-64)		AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		PAGE 1 OF 14
1. AMENDMENT/MODIFICATION NO. P00026		2. EXPIRES DATE Attached	3. SOLICITATION/PURCHASE REQUEST NO. N00024-79-PP-25*05	4. PROJECT NO. (If applicable) 9-393P-25805
5. ISSUED BY Chief of Naval Material (OOX) Department of the Navy Washington, D. C. 20360		6. ADMINISTERED BY (If other than block 3) Supervisor of Shipbuilding Conversion and Repair, USN Newport News, Virginia 23607		CODE N62793
7. CONTRACTOR NAME AND ADDRESS Newport News Shipbuilding & Dry Dock Co. 4101 Washington Avenue Newport News, Virginia 23607 <small>(Street, city, county, state, and ZIP Code)</small>		8. AMENDMENT OF SOLICITATION NO. DATED _____ (See block 9)		9. MODIFICATION OF CONTRACT/ORDER NO. N00024-71-C-0270 DATED 71JAN08 (See block 11)
9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS <input type="checkbox"/> The above numbered solicitation is awarded as set forth in block 12. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods: * (a) By signing and returning _____ copies of this amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
10. ACCOUNTING AND APPROPRIATION DATA (If required) Attachment "E"				
11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS (a) <input type="checkbox"/> This Change Order is issued pursuant to _____ The Changes set forth in block 12 are made to the above numbered contract/order. (b) <input type="checkbox"/> The above numbered contract/order is modified to reflect the administrative charges (such as changes in paying office, appropriation case, etc.) set forth in block 12. (c) <input checked="" type="checkbox"/> This Supplemental Agreement is entered into pursuant to authority of _____ the provisions of the contract and P. L. 85-804 It modifies the above numbered contract as set forth in block 12.				
12. DESCRIPTION OF AMENDMENT/MODIFICATION See Attached				
<small>Except as provided herein, all terms and conditions of the document referenced in block 8, as herebefore changed, remain unchanged and in full force and effect.</small> 13. <input type="checkbox"/> CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT <input checked="" type="checkbox"/> CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 3 COPIES TO ISSUING OFFICE				
14. NAME OF CONTRACTOR/OFFEROR BY <u>C. E. DART</u> <small>(Signature of person authorized to sign)</small>		17. UNITED STATES OF AMERICA BY <u>P. F. MANJANARO</u> <small>(Signature of Contracting Officer)</small>		
15. NAME AND TITLE OF SIGNER (Type or print) C. E. DART Executive Vice President Newport News Shipbuilding		16. DATE SIGNED 5 OCT 1970	18. NAME OF CONTRACTING OFFICER (Type or print) P. F. MANJANARO, RADM, USN Chairman, Navy Claims Settlement Board	
		19. DATE SIGNED 5 OCT 1970		

831607

Description of Modification

Applicable Ships: SSN 689, SSN 691, SSN 693, and SSN 695

WHEREAS, the parties consider all work completed under this contract except as otherwise specifically agreed to below, and the vessels constructed hereunder, except SSN 695, have been delivered to the Government; and

WHEREAS, the Contractor has submitted claims and requests for equitable adjustment in the contract price pursuant to various provisions of this contract and the Contracting Officer, upon analysis of the said claims and requests for equitable adjustment, has determined them to be meritorious in certain respects; and

WHEREAS, the parties have agreed that, without allocation of responsibility, the Contract Delivery Dates of SSN 689, SSN 691, and SSN 693 shall be the actual delivery dates and the delivery date of SSN 695 shall be 31 December 1978; and

WHEREAS the parties have agreed to the resolution of other outstanding issues in addition to the settlement of the requests for equitable adjustment; and

WHEREAS, the Government has agreed to adjust the pricing structure and delivery dates of the contract and in exchange for these and other agreements contained herein the Contractor has agreed to give a release as set forth in paragraph 9 below, subject to the reservations set forth in paragraph 10 below; and

WHEREAS, differences exist between the parties as to the computation of escalation; the Contractor nevertheless agrees that the Adjustments to Compensation in this modification include any and all escalation to which he is entitled by reason of the adjustments contained in this modification; and

WHEREAS, differences exist between the parties as to: (1) computation, allowance and allocation to the Contractor of General and Administrative costs of Tenneco Inc. and Tenneco Corporation; and (2) computation, allowance and allocation of pension costs of the Contractor including the amount contributed to the TENNECO Annuity Plan, the premiums paid to Tennessee Life Insurance for reversionary benefits and the allocation of identified actuarial gains and losses directly to the Contractor; and the parties intend that the total final negotiated cost of this contract as hereinafter established includes any and all consideration for (1) and (2) above with respect to this contract; and

WHEREAS the disputed matters referenced in the immediately preceding paragraph have been resolved under this contract and all other contracts between the parties by agreement that Home Office Expense for the year 1972 and forward shall be in accordance with CAS 403 and shall be allowed as heretofore approved by DCAA for the years prior to 1972; the Contractor's appeal to the Armed Services Board of Contract Appeals docketed as No. 21625 shall be withdrawn with prejudice; and the Pension Costs referred to in the immediately preceding paragraph which were previously included in provisional disallowances by DCAA, suspended, or disapproved shall be allowed for Contract N00024-67-C-0325 and disallowed for all other contracts between the parties; and

WHEREAS, differences exist between the parties as to the allowability of State tax accruals on this and other contracts; the parties intend that accrued amounts now suspended or disapproved by DCAA will be allowable for this contract to the extent that such amounts will be payable for the year in which this modification becomes effective, and the total final negotiated costs of this contract as hereinafter established include any and all consideration for State tax accruals; and the parties intend that this issue shall be resolved for all other contracts using the same principles, i.e., state taxes accrued for payment in a current year are allowable if payable by the contractor in the following year by or at the time the tax return is filed for the current year; and

WHEREAS, the Assistant Secretary of the Navy, by Memorandum of Decision dated October 5, 1978, has determined that, as part of this agreement, it will facilitate the national defense to invoke P.L. 85-804 to modify this contract by including \$2,500,000 as part of the "Adjustments to Compensation" in paragraph 5 below; and

WHEREAS, pursuant to Modifications P00015 and P00024 the Contractor has received provisional increases in contract price in the amount of \$19,200,000 and \$9,000,000 respectively for reasons identified in those modifications; and

WHEREAS, the Government has asserted claims for non-correction of deficiencies and/or noncompletion of contract work; and the parties desire to fully and finally settle said claims as part of the price adjustment established in this modification; and

WHEREAS, the parties have agreed on an adjustment in the contract price by reason of the foregoing matters and in accordance with the provisions of Article 8, Incentive Price Revision (Firm Target), the total final negotiated cost, the

adjustment for profit and the final contract price have been established and determined, all of the foregoing as herein-after set forth; and

WHEREAS, the parties have agreed that SSN 695 shall be completed and delivered as required by this contract; provided the Contractor may follow deviations, waivers, and other resolutions of problem areas which have been issued under this contract for SSN 695 without change in contract price; progress payments shall be computed and paid using the techniques and billing price for SSN 695 (as adjusted in this modification) which have been previously used for such payments; and changes, if any, issued by the Government after September 5, 1978 for SSN 695 will be performed by the Contractor and priced out by mutual agreement on a firm fixed price basis; and

WHEREAS, the parties have agreed to the full and final settlement hereinafter described:

NOW, THEREFORE, the parties hereto agree:

1. Article 3, Delivery Schedule, is hereby modified as follows:

<u>SHIP</u>	<u>DATE</u>
SSN 689	10 June 1977
SSN 691	14 December 1977
SSN 693	26 May 1978
SSN 695	31 December 1978

2. The following are hereby fully and finally settled:

(a) The Contractor's Requests for Equitable Adjustment dated 7 August 1975, as amended and 8 March 1976, as amended. By reason of the price adjustments made and set forth in paragraph 5.a of this Modification, the amount of the provisional increases in contract price effected by Modifications P00015 and P00024 are reduced to zero.

(b) As of September 5, 1978, all (1) changes, (2) HMRS, (3) FMRs, (4) letters of direction, and (5) requests for proposals under this contract. All rights of the parties pertaining to such items dated subsequent to September 5, 1978, shall remain unaffected.

(c) All claims of the Contractor under this contract for compensation under Clause 42, Federal, State, and Local Taxes.

(d) Any and all liabilities which are remised, released and discharged under paragraph 9 below subject to the reservations set forth in paragraph 10 below.

(e) Any claims of the Contractor under this contract relating to (1) computation, allowance and allocation to the Contractor of General and Administrative costs of Tenneco Inc. and Tenneco Corporation; and (2) computation, allowance and allocation of pension costs of the Contractor including the amount contributed to the TENNECO Annuity Plan, the premiums paid to Tennessee Life Insurance for reversionary benefits and the allocation of identified actuarial gains and losses directly to the Contractor.

(f) Any and all of the following liabilities of the Contractor to the Government, express or implied, whether known or unknown; from which the Government hereby releases and forever discharges the Contractor, subject to the reservations in paragraph 10 below.

(1) Under Clause 7, Inspection, Clause 6, Guaranty Period, and other provisions of this contract for non-correction of deficiencies and noncompletion of contract work; and

(2) For equitable reduction of the contract price of this contract, for reimbursement of Government costs under this contract, for disallowance of Contractor costs under this contract, or for money damages arising from the performance of work of this contract; all of the foregoing based upon acts or omissions (including negligence) of the Contractor under this contract, which such acts or omissions occurred prior to the effective date of this modification.

3. Not used.

4. Under the authority of the Act of August 28, 1958, as amended, (Public Law 85-804); 72 Stat. 972, as amended by 87 Stat. 605 (1973); 50 U.S.C. 1431-1435, as amended, and Executive Order 10789 of 14 November 1958 (23 Fed. Reg. 8897) as amended by Executive Order 11051, dated 27 September 1962, Executive Order 11382 of 28 November 1967, and Executive Order 11610 of July 22, 1971, and other applicable statute law and regulation, and in order to facilitate the national defense and in consideration of the mutual covenants of the parties, it is agreed that \$2,500,000 be included as part of the "Adjustments to Compensation" in paragraph 5, and such amount is included. The following modifications are made to the contract:



(a) Clause 31 of the General Provisions entitled "Examination of Records" is deleted in its entirety and the ASPR 7-104.15 Clause entitled "Examination of Records by Comptroller General (1975 JUN)" is substituted therefor.

(b) Clause 49 of the General Provisions entitled "Equal Opportunity" is deleted in its entirety and the ASPR 7-103.18(a) Clause entitled "Equal Opportunity (1976 JUL)" is substituted therefor.

5. (a) The following adjustments are made:

(1) Equitable Adjustment in Contract Price:

Target Cost	\$ 23,796,000	Increase
Target Profit	\$ 2,380,000	Increase
Target Price	\$ 26,176,000	Increase
Ceiling Price	\$ 30,697,000	Increase

(2) Adjustments to Compensation: These are adjustments not reflected in (1) above which are being made separately from the adjustments in (1) above so as not to affect the Contractor's profit or loss otherwise determined under Article 8, Incentive Price Revision (Firm Target). The Contractor agrees that these adjustments include any and all escalation to which he is entitled by reason of the adjustments contained in this modification:

\$ 10,965,137 Increase

(b) By reason of all adjustments to date, including the above adjustments, the revised contract pricing structure is:

Target Cost	\$ 265,703,325
Target Profit	\$ 28,033,419
Target Price	\$ 293,736,744
Ceiling Price	\$ 301,719,083

(c) The Total Final Negotiated Cost of performing this contract is hereby established pursuant to Article 8, Incentive Price Revision (Firm Target), as

\$ 307,712,096

(d) Pursuant to Article 8, Incentive Price Revision (Firm Target), the "Adjustment for Profit" is established as follows:

Target Cost	\$ 265,703,325
Total Final Negotiated Cost	\$ 307,712,096
Underrun/(Overrun)	\$ 42,008,771
Target Profit	\$ 28,033,419
Adjustment to Target Profit Based on Article 5	\$ ( 34,026,432)
Adjustment for Profit	\$ ( 5,993,013)

(e) Pursuant to Article 8, Incentive Price Revision (Firm Target), the "Total Final Price" is established as follows:

Total Final Negotiated Cost	\$ 307,712,096
Adjustment for Profit	\$ ( 5,993,013)
Adjustments to Compensation in Article 9, <u>Comp-</u> <u>ensation Adjustments</u> (including adjust- ments pursuant to Clause 42, <u>Federal,</u> <u>State and Local</u> <u>Taxes</u> )	\$ 58,025,457
Total Final Price	\$ 359,744,540

6. Upon execution of this modification, the parties will enter into a stipulation whereby the appeal designated as ASBCA No. 21625 will be dismissed with prejudice, subject to reinstatement only in the event that all payments required by this modification are not made to the Contractor.

7. (a) The incentive price provisions of the contract shall not apply to future pricing actions hereunder, and each such pricing action shall be developed and negotiated on a firm fixed price basis with the resulting agreed amount being added to the Total Final Price herein established as such Total Final Price shall have been adjusted at the time of each subsequent pricing action. Clause 11 of this contract is hereby deleted and the following is substituted therefor:

"PAYMENTS

(i) The Government, upon submission by the Contractor of invoices certified by the Contractor as hereinafter provided, will promptly make payments on account of the total final price of one hundred percent (100%) of an amount determined by applying to the total final price the percentage of physical progress in the performance of the contract as a whole as certified by the Contractor subject to the approval of the Supervisor.

(ii) Invoices may be submitted semi-monthly or more frequently if expenditures by the Contractor warrant and shall be based upon the total final price as adjusted from time to time and such adjustments shall be established on a firm fixed price basis. The specific amount to be paid by the Government under each invoice shall be the payment as computed in paragraph (i) above less all previous amounts paid to the Contractor under this clause and under Clause 11 of the General Provisions.

(iii) Except for final payment, no payment will be required to be made upon invoices aggregating less than \$5,000.

(iv) For purposes of this clause, each of the ships under this contract shall be considered 100% complete upon preliminary acceptance of each such ship."

(b) Notwithstanding anything else to the contrary contained herein, except as results from the application of the progress payments provision set out above, there shall be no contract withholdings or retainages by the Government of any kind.

8. Notwithstanding anything else in this modification, the rights of the parties regarding CVN 70 shall be covered exclusively by the definitized contract to be executed.

9. Release

a. As used in Paragraph 9.

(1) "Events" refer to any other contract modifications, any Government breach, any Government tort, any change orders, any stop work orders, any suspensions of work, any Government actions or omissions pertaining to Government property or information, and any other occurrences, actions or omissions.

(2) "Covered Events" refers to Events occurring before the date set forth in Block 19 of SF 30 (page 1 of this modification), whether formal or constructive, and whether known or unknown to either or both of the parties as of the date set forth in Block 19 of SF 30 (page 1 of this modification), all of which events arise out of, under, or are in any manner connected with:

(i) this contract; or

(ii) any other Government contract (with this or any other Contractor) or contract between the Contractor and any third party.

(3) "SSN 689/691/693/695 Events" refers to Events occurring before the date set forth in Block 19 of SF 30 (page 1 of this modification) whether formal or constructive, and whether known or unknown to either or both of the parties as of the date set forth in Block 19 of SF 30 (page 1 of this modification) but only to the extent such events both (i) arise out of or under this contract, and (ii) impact other contracts solely by reason of their impact on this contract.

b. In consideration of the provisions of this modification, the Contractor, for itself, its successors, assigns, vendors, suppliers and subcontractors, hereby remises, releases and forever discharges the Government, its officers, agents, and employees from (i) any and all entitlement of the Contractor to equitable adjustment of the contract price and delivery schedule of this, and only this, contract by reason of Covered Events, (ii) any and all liabilities to the Contractor for money damages and/or other relief for the impact of Covered Events upon this, and only this, contract, (iii) any and all entitlement of the Contractor to equitable adjustment of the contract price and delivery schedules of any other Government contract or contract between the Contractor and any third party by reason of SSN 689/691/693/695 Events, and (iv) any and all liabilities to the Contractor for money damages and/or other relief for the impact of SSN 689/691/693/695 Events upon any other Government contract or contract between the Contractor and any third party.

c. (1) The Contractor hereby confirms and acknowledges that in agreeing to the terms of this modification, it has considered and made full allowance for any and all costs under, and other impacts upon (i) this contract by reason of Covered Events and (ii) any other contract with the Government and with any third party by reason of SSN 689/691/693/695 Events; whether or not such costs and other impacts are known or unknown or foreseeable or unforeseeable as of the

date set forth in Block 19 of SF 30 (page 1 of this modification), whether or not such costs and other impacts have been discussed with, or for any reason reserved for future discussion with, the Government, or have been made the basis for other assertion of claims or requests for equitable adjustment and whether or not such costs or other impacts were, or are, incurred and sustained, respectively, before or after the date set forth in Block 19 of SF 30 (page 1 of this modification).

(2) The term "costs" as used in subparagraph (1) immediately above include, but are not limited to:

- (i) direct labor and material costs ("hardcore"),
- (ii) delays,
- (iii) disruptions, dislocations, acceleration, and inefficiencies in performance,
- (iv) interest costs and any other consideration for financing,
- (v) claim preparation costs, requests for equitable adjustment preparation costs, and
- (vi) overhead costs.

10. Notwithstanding any other provision of this modification, the following rights are hereby reserved, it being expressly agreed that the parties do not thereby acknowledge liability therefor:

(a) All rights and entitlement which the Government may have against the Contractor founded upon P.L. 87-653 to the extent that Certificates of Current Cost and Pricing Data have been provided in connection with this modification; and 31 U.S.C. 231; 18 U.S.C. 286; 18 U.S.C. 287; and 18 U.S.C. 1601.

(b) All rights and obligations of the parties relating to the CGN 41, except that the release in paragraph 9 above includes all costs, as defined in paragraph 9.c.(2), incurred upon the SSN 689, SSN 691, SSN 693, and SSN 695 resulting from Events occurring on the CGN 41.

(c) All rights of the Contractor under the following provisions of the contract:

- (i) "Insurance - Property Loss or Damage - Liability to Third Persons".

(ii) "Additional Insurance Provisions."

(iii) "Nuclear Risk - Indemnification Under Public Law 85-804."

(d) All rights and liabilities of the parties arising under the contract articles, if any, or otherwise which relate to reproduction rights, patent infringements, inventions, applications for patent and patents, including rights to assignments, invention reports, and licenses, and in covenants of indemnity against patent risks.

(e) All rights and liabilities of the parties with respect to the future care and disposition by the Contractor of Government property remaining in his custody.

(f) All rights the Contractor may have to royalty payments under the Contract provision entitled "Value Engineering Incentive."

(g) All of the items listed in paragraph 2(b) above occurring after September 5, 1978.

(h) All rights and obligations of the parties relating to Contractor-acquired material made obsolete or excess as a result of contract changes as specifically set forth below:

(i) Material made obsolete or excess as a result of contract changes has been identified in change pricing proposals submitted to the Government. The Contractor shall provide to the Government any such material which has been so identified but not disposed of pursuant to instructions from the Government; provided if any such material is not available, the Contractor may substitute equivalent material or pay the original purchase price of the material to the Government.

(ii) The Government shall provide disposition instructions for the material described in subparagraph (i) above, and the Contractor shall dispose of such material in accordance with such instructions. The Contractor shall be reimbursed by the Government for the cost, plus a reasonable profit, of such disposition.

(i) With respect to SSN 689, SSN 691, and SSN 693, all rights of the parties pertaining to the undelivered software items specifically identified in Attachment "A", it being agreed that the Contractor will use its best reasonable efforts to provide the same, provided that if notwithstanding such efforts the Contractor should fail to do so, the maximum obligation of the Contractor shall not exceed a value of \$2,000 for SSN 689, \$3,000 for SSN 691, and \$3,000 for SSN 693.

(j) With respect to SSN 689, SSN 691, and SSN 693, all rights of the parties pertaining to the undelivered materials specifically identified in Attachment "B", it being agreed that the Contractor will use its best reasonable efforts to provide the same, providing that if notwithstanding such efforts the Contractor should fail to do so, the maximum obligation of the Contractor shall not exceed a value of \$70.82 per item.

(k) With respect to SSN 691, all rights of the parties pertaining to the guarantee deficiencies and INSURV items, specifically identified in Attachment "C", provided however that in no event shall the Contractor's liability for guarantee deficiencies exceed \$1,500,000.

(l) With respect to SSN 693, all rights and obligations of the parties pertaining to the INSURV and guarantee deficiency items identified in Attachment "D".

(m) With respect to SSN 693, all rights and obligations to the parties pertaining to the guarantee deficiencies unknown to NAVSEA or the Supervisor or his staff as of September 5, 1978; provided the Contractor shall accumulate the cost of any correction of guarantee deficiencies under a separate cost account, and at the time of completion of all such corrections, the parties will increase the total final negotiated cost of this contract by an amount, as agreed to by the contracting officer, equal to the cost of such corrections. The Contractor's liability for correction of guarantee deficiencies on SSN 693 shall not exceed \$1,500,000.

(n) All rights and obligations of the parties respecting work after September 5, 1978, required to complete and deliver SSN 695; provided the Contractor may follow deviations, waivers, and other resolutions of problem areas which have been issued under this contract for SSN 695 without change in contract price; and further provided the maximum obligation of the Contractor for correction of guarantee deficiencies shall not exceed \$1,500,000.

(o) With the exception of delay costs already incurred, all rights and obligations of the parties with respect to MSW pumps on SSN 691, SSN 693 and SSN 695.

(p) All rights and obligations of the parties relating to DeSanno valves.

(q) All rights and obligations of the parties relating to seal weld cutting machines for the Decay Heat Removal System.

11. Promptly upon effectiveness of this modification and the submission of proper invoices, the Government shall make the payments required under the terms of this contract as modified herein. If such payment is not made within 60 days of the effectiveness of this modification, the Contractor shall have the right to declare this modification to be of no force and effect and the parties shall be restored to their respective rights and remedies existing prior to the execution of this modification.

12. (a) The parties hereto agree that this modification shall become effective only upon receipt by the Contractor of written notice by the Contracting Officer that appropriations have been obligated to this contract in an amount sufficient to fund fully the Government's obligations under this contract, including the obligations provided for in this modification. In any event, should such notice not be given by March 31, 1979, neither party shall be bound by the terms contained herein.

(b) Modification P00037 to Contract N00024-70-C-0252; Modification P00014 to Contract N00024-69-C-0307, Modification P00036 to Contract N00024-70-C-0269, Modification P00026 to Contract N00024-71-C-0270, Modification P00067 to Contract N00024-67-C-0325, and Modification P00028 to Contract N00024-68-C-0355 reflect various elements of an overall settlement of a number of Navy and Contractor issues, and, as such, are inseverably related to each other. It is specifically agreed that the effectiveness of each individual modification is conditioned upon the execution and effectiveness of all of the modifications identified above.

13. The parties agree that notwithstanding the contingent nature of this modification as described in paragraph 12 above:

(a) The Contractor will proceed to correct the INSURV and guarantee items identified herein or by reference as Contractor responsible items. If the modification does not become effective the Contractor's actions in correcting those INSURV and guarantee items will not be considered as prejudicing its rights and obligations regarding later



determinations of responsibility for correction of those items. In no event will the Contractor be deemed a volunteer by its actions in correcting those deficiencies pursuant to this agreement, rather, the Contractor will be deemed to have performed those tasks at the direction of the Contracting Officer. In addition, the allocation of responsibility for INSURV and guarantee items shall likewise not be binding on the parties and shall have no effect on later determinations of responsibility for these items. Furthermore, if this modification does not become effective, the Government's actions in correcting INSURV and guarantee deficiencies which are later determined to have been contractor responsible shall not adversely affect the Government's right to price reduction for non-correction of these deficiencies by the Contractor.

(b) In view of the length of time which may be required before the Mod can become effective and the Contractor's need for cash, it is agreed that the Contractor will submit invoices based on the total final price as adjusted herein and as may be further adjusted, and the Government will pay such invoices in accordance with the Payments provision contained in paragraph 7. If the modification does not become effective the payments made, if any, shall be considered to have been provisional in nature and shall be subject to repayment to the Government on final settlement of the contract. In addition, the Government's payments, if any, will not be considered as prejudicing its rights and obligations regarding later determinations of any amounts due under the contract.

UNDELIVERED CONTRACTOR DATA REQUIREMENTS LIST (CDRL) ITEMS  
ESTIMATED COMPLETION DATES (MO/YR)

<u>IDENTIFICATION NO.</u>	<u>BRIEF TITLE</u>	<u>(2) 689</u>	<u>(2) 691</u>	<u>(2) 693</u>	<u>Remarks</u>
A001AY	Ship system manual	SEE A001BA	2/79	8/79	Preliminary already delivered.
A001BB	Ship Vlv Tech Manual	Remarks	Remarks	Remarks	Preliminary already delivered. Final completed; waiting for Government to provide binders and index tabs.
A001BC	Weapons delivery Sys Equip. Manual	1/79	1/79	1/79	Preliminary already delivered. Final ready for Government printer.
A001BD	Steam & Electric Plant Manual	3/79	3/79	3/79	Preliminary already delivered. Final requires color printing.
A001EO	Noise Control Book- let & Drawings	12/78	3/79	6/79	
A001AS	Final Ship Drawings	Completed	2/79	8/79	
A001EV	Ship Drawing Index	1/79	3/79	11/79	
A001BT	Test Reports	1/79	3/79	6/79	
A001CF	Inclining & Trim Dive Report-Amend	Completed	2/79	Remarks	At end of SSN 693 PSA.
A001BA	Equip. Tech Manuals	Remarks	Remarks	Remarks	Open are 14 Tech Manuals per ship, three of which are controlled by the Government. The three are A001AY & A001BB above plus the Motors and Controllers Tech Manual.

NOTES: (1) Delivery required under Contract N00024-70-C-0269  
(2) Delivery required under Contract N00024-71-C-0270

ATTACHMENT "A"

SSN 689 ShortagesStorerroom items

<u>Stock Number</u>	<u>Qty</u>
9N 5920-00-113-7652	1
1H 0000-LL-RFS-1876	1
1H 0000-LL-RFS-1876	1
1H 0000-LL-RFS-1988	8

Operating space items

<u>Stock Number</u>	<u>Qty</u>
1H 0000-LL-CJO-7850	1

Adds

<u>Stock Number</u>		<u>Qty</u>
1H 4820-00-162-5186X3	Wrench	1
1H 5180-00-897-6339	Tool kit	1
1H 2010-00-882-7073	Splicing kit	1
1H 0099-LL-HD2-D871	Gasket	3
1H 0099-LL-HD2-A429	Packing	1
9I 5330-00-140-0264	Packing	1
9Z 5330-00-492-0575	Packing	2
1H 0099-LL-HD2-C242	Extractor	1
9Z 5330-01-029-9931	Retainer pkg	1
9Z 5330-00-582-1543	Retainer pkg	1
1H 0099-LL-HD2-D848	Fiber lock	1
1H 0099-LL-HD2-D847	Fiber lock	1
1H 0099-LL-HD2-D846	Seat	1
1H 0099-LL-HD2-D845	Packing	1
2H 6605-00-191-3462	Control	2
1H 0099-LL-HD2-D948	Spring	1
1H 0099-LL-HD2-D949	Bearing	2
9Z 5330-00-286-7536	Seal	1
1H 0099-LL-HD2-C008	Ring test	1
1H 5360-00-112-0931	Spring	1
1H 0099-LL-HD2-D616	Switch	1
9C 4140-00-255-7801	Fan	1
1H 0099-LL-HD2-D896	Transformer	1
1H 5180-00-087-7107	Tool	1

SSN 689 (cont'd)

<u>Stock Number</u>		<u>Qty</u>
9N 5910-00-028-4155	Capactor	1
1H 0099-LL-HD2-D898	Seat	2
9Z 5330-00-889-5483	Packing	1
9Z 5330-00-283-9029	Packing	1
1H 0099-LL-HD2-D901	Gasket	1
1H 0099-LL-HD2-D815	Boot	36
6350-957-4190	Lock	1
5961-106-6991	Diode	6
5961-018-9164	Diode	1
5961-462-7165	Diode	1
5961-018-9196	Diode	1
1H 5945-HD2-B490	Solenoid	1
1H 0099-LL-HD2-D815	Boot	2
1H 5945-LL-HD2-B490	Solenoid	1
1H 0099-LL-HD2-D828	Packing	1
1H 0099-LL-HD2-D830	Disc assy	1
1H 0099-LL-HD2-D829	Packing	1
1H 0099-LL-HD2-D831	Pref pkg	1
1H 4820-LL-HD2-D906	Globe valve	1
9Z 5330-00-194-3706	Pref pkg	2
9Z 5330-00-805-2966	Pref pkg	10
9Z 5330-00-576-9731	Pref pkg	23
9Z 5330-00-103-2912	Pref pkg	3
9Z 5330-00-845-9685	Pref pkg	75
9Z 5330-00-067-3358	Pref pkg	8
5330-00-297-7113	Pref pkg	44
9Z 5330-00-163-2678	Pref pkg	9
1H 0099-LL-HD2-A859	Pref pkg	4
9Z 5330-00-133-1936	Pref pkg	4
9Z 5330-00-103-2911	Pref pkg	24
9Z 5330-00-425-2283	Pref pkg	1
9Z 5330-00-890-3437	Pref pkg	2
9Z 5330-00-901-8228	Pref pkg	24
9Z 5330-00-819-5111	Pref pkg	5
9Z 5330-00-256-0190	Pref pkg	22
9Z 5330-00-702-1048	Pref pkg	22
9Z 5330-00-584-0263	Pref pkg	60
9Z 5330-00-198-6163	Pref pkg	5
9Z 5330-00-835-7485	Pref pkg	2
9Z 5330-00-297-6300	Pref pkg	25
9Z 5330-00-802-5905	Pref pkg	12

ATTACHMENT "B"

SSN 689 (cont'd)

<u>Stock Number</u>		<u>Qty</u>
9Z 5330-00-543-3041	Pref pkg	220
9Z 5330-00-585-8247	Pref pkg	19
9Z 5330-00-641-0231	Pref pkg	205
9Z 5330-00-579-8156	Pref pkg	1
9Z 5330-00-198-6190	Pref pkg	11
9Z 5330-00-196-5330	Pref pkg	2
9Z 5330-00-197-9580	Pref pkg	9
9Z 5330-00-187-3635	Pref pkg	4
9Z 5330-00-196-5379	Pref pkg	5
9Z 5330-00-186-2750	Pref pkg	2
9Z 5330-00-260-9338	Pref pkg	12
9Z 5330-00-198-6198	Pref pkg	1
9Z 5330-00-804-5694	Pref pkg	4
1H 0099-LL-HD2-D948	Spring	1
9Z 5330-00-286-7536	Seal	1
1H 0099-LL-HD2-D949	Bearing	2
1H 0099-LL-HD2-A429	Packing	1
9I 5330-00-140-0264	Packing	1
9Z 5330-00-492-0575	Packing	2
1H 0099-LL-HD2-C242	Extractor	1

SSN 691 ShortagesStoreroom items

<u>Stock Number</u>	<u>Qty</u>
5910-00-051-2230	1
5920-00-113-7652	1
8040-00-273-8717	1
5930-00-501-4955	1
3030-00-528-3796	1
5330-00-582-1539	2
5530-00-612-6134	1
5830-00-768-7241	1
5905-00-816-4442	1
4330-00-969-3846	1
5950-01-013-4528	1
0099-LL-HD2-B057	1
0099-LL-HD2-C033	2

ATTACHMENT "B"

SSN 691 (cont'd)

<u>Stock Number</u>	<u>Qty</u>
0099-LL-HD2-D528	1
0099-LL-HD2-D529	1
0099-LL-HD2-D530	1
0099-LL-HD2-D531	1
0099-LL-HD2-D532	1
0099-LL-HD2-D533	1
0099-LL-HD2-D534	1
0099-LL-HD2-D535	1
0099-LL-HD2-D536	1
0099-LL-HD2-D537	1
0099-LL-HD2-D538	1
0099-LL-HD2-D539	1
0099-LL-HD2-D540	1
0099-LL-HD2-D542	1
0099-LL-HD2-D543	1
0099-LL-HDB-A982	2
3110-LL-RFS-1625N	2
0000-LL-RFS-1734	1
0000-LL-RFS-1836	1
0000-LL-RFS-1876	1
0000-LL-RFS-1877	1
0000-LL-RFS-2002	1
0000-LL-RFS-2003	1
5330-00-197-9611	1
5330-00-595-6669	6
5330-00-702-1371	20

Operating space items

<u>Stock Number</u>	<u>Qty</u>
5340-00-371-8594	5
4730-00-588-2689	1

Q items

<u>Stock Number</u>		<u>Qty</u>
H 0000-LL-HX1-6314	O ring	3
Z 5330-00-579-8156	O ring	2
Z 5330-00-579-7914	O ring	1
H 4820-00-162-5186X3	Wrench	1

SSN 691 (cont'd)Adds

<u>Stock Number</u>		<u>Qty</u>
9Z 5330-00-283-9029	Packing	1
1H 0099-LL-HD2-D901	Gasket	1
1H 0099-LL-HD2-D815	Ck bkr boot	165
1H 0000-LL-CJ6-9584	Printer	1
9G 6240-00-242-6218	Lamp	2
9C 4330-00-436-8159	Element	6
5360-00-112-0931	Spring	1
9Z 5330-00-878-0443	Seal	1
1H 0099-LL-HD2-D948	Spring	1
9Z 5330-00-286-7536	Seal	1
9Z 5330-00-397-4356	Gasket	3
1H 0099-LL-HD2-0949	Bearing	2
9Z 5330-00-878-0443	Seal	1
1H 5180-00-087-7107	Tool	1
9N 5910-00-028-4155	Capacitor	1
9Z 5330-00-889-5483	Packing	1
1H 0099-LL-HD2-0898	Seat	2
N 5945-00-773-2784	Contact	4
N 5945-00-773-2783	Contact	4
N 6110-00-696-4981	Contact	4
N 5945-00-773-2780	Contact	4
Z 5340-00-547-1127	Spring	4
N 6210-00-423-7860	Light ind.	1
N 6210-00-423-7852	Light ind.	1
N 6210-LL-HD2-D905	Light ind.	1

SSN 693 ShortagesStoreroom items

<u>Stock Number</u>	<u>Qty</u>
4N 1220-00-003-8682	1
9N 5910-00-028-4155	1
1H 5180-00-087-7107	2
9Z 5360-00-112-0931	1
9N 5910-00-146-4793	1
9Z 5330-00-171-9919	12
9Z 5330-00-197-9611	2
9G 6240-00-242-6218	2
9Z 5305-00-253-5609	1
9Z 5310-00-338-4001	1

ATTACHMENT "B"

SSN 693 (cont'd)

<u>Stock Number</u>	<u>Qty</u>
9Z 5330-00-373-0234	1
1H 4820-00-393-1711	1
9Z 5330-00-432-3670	1
1H 4330-00-419-0654	1
9Z 5330-00-432-6817	1
9Z 5330-00-435-8511	1
9C 4820-00-497-1686	1
9Z 5330-00-526-5559	16
9Z 5330-00-582-1539	2
9C 3030-00-587-0494	1
9C 4820-00-588-2726	1
9Z 5330-00-599-2934	1
9Z 5330-00-599-9610	4
9Z 5330-00-618-2517	1
9Z 5330-00-631-1341	1
9Z 5330-00-641-4350	6
9Z 5330-00-765-3529	1
9Z 5330-00-781-9908	2
9Z 5330-00-821-1508	6
9G 6240-00-828-3039	1
9Z 5330-00-901-1203	2
9Z 5310-00-903-3028	1
1H 3110-00-992-1011 NT	1
9Z 5360-01-011-1513	8
9Z 5315-01-011-3530	2
9C 4320-01-022-4205	1
9G 6130-01-028-9396	1
P/N 2833527	1
1H 0000-LL-CK3-2678	1
1H 5365-LL-HD2-D048 CP	1
1H 0099-LL-HD2-D311	1
1H 6150-LL0HD2-D399	3
1H 6110-LL-HD2-0619	1
1H 0099-LL-HD2-D756	1
1H 0099-LL-HD2-D768	1
1H 0099-LL-HD2-D793	1
1H 0099-LL-HD2-D815	90
1H 0099-LL-HDD-L482	1
1H 0000-LL-RFS-1435	7
1H 0099-LL-RFS-D803	1

ATTACHMENT "B"



SSN 693 (cont'd)Operating space items

<u>Stock Number</u>	<u>Qty</u>
2H 6605-00-191-3462	2
9G 4120-00-227-6410	7
9Z 5340-00-371-8594	8
9C 4320-00-965-5952	1
1H 0000-LL-CJ7-0842	2
1H 0000-LL-CJ7-1800	1
1H 000Q-LL-RFS-1048	1
1H 0000-LL-RFS-1058	1
1H 0000-LL-RFS-1751	2
1H 0000-LL-RFS-1754	1
1H 0000-LL-RFS-1758	1
1H 0000-LL-RFS-1759	1
1H 0000-LL-RFS-1786	2
1H 0000-LL-RFS-1787	1
1H 0000-LL-RFS-1789	1
1H 0000-LL-RFS-1800	2
1H 0000-LL-RFS-1880	1

Adds

<u>Stock Number</u>	<u>Qty</u>
9N 6210-00-423-7852	1
9N 6210-00-423-7860	1
9Z 5340-00-547-1127	4
9N 6110-00-696-4981	4
9N 5945-00-773-2780	4
9N 5945-00-773-2783	4
9N 5945-00-773-2784	4
9N 6210-LL-HD2-D905	1

CONTRACTOR RESPONSIBLE INSURV AND GUARANTY ITEMSSSN 691CONTRACTOR RESPONSIBLE ITEMS

<u>I. INSURV ITEMS</u>	<u>DESCRIPTION</u>
1. 1K003AX	Sanitary pump No. 1
2. 1K507AX	4500 to 1800 PSI N <sub>2</sub> reducer
3. 1K517AX	Trim pump suction strainer
4. 1G524AX	H.P. air dryer
5. 2K531AX	Diesel engine - coffin cover
6. 1K501HB	Access hatch
7. 1K010MP	MSW-34 hyd. actuator
8. 2K024MP	Morphaline stowage
9. 1K502MP	ASW-10
10. 2K512MP	1600 GPD still
11. 2G5160P	AN/BQQ-5
12. 2K505SP	TDU brackets
13. 1K503WP	Weapon dollies
14. 1G515WP	Torpedo room
15. 2K522WP	Weapons handling
16. 2K524WP	Torpedo tubes
17. 2K525WP	Torpedo tubes
18. 2K526WP	Weapons handling
19. 1K011AX	Stern planes ram
20. 1K505AX	HP-63-GA-005
21. 1K510AX	LPAC dryer
22. 1K511AX	FBCT overflow
23. 1K514AX	HR-105
24. 1K519AX	HS-505
25. 1K520AX	#2 S&D pump bypass
26. 1K521AX	HRD-140
27. 2K526AX	Lead accumulator
28. 2K527AX	S&D accum. No. 1
29. 2K530AX	Rudder hull shaft
30. 2G533AX	Diesel tach.
31. 1K004EL	PRPLN L.O. sump tank low level cutout relay enc.
32. 2G504EL	Brd trk emerg. lgt
33. 2G506EL	Fwd. anchor light
34. 1K502HB	Ship's showers
35. 1K503MP	Reduction gears
36. 2K509MP	EB coupling
37. 2K510MP	R-114 A.C. plants

ATTACHMENT "C"

Contractor responsible items (cont'd)

<u>INSURV ITEMS</u>	<u>DESCRIPTION</u>
38. 2K0240P (2) & (3)	Airborne noise
39. 2K507SP	Drop shelf
40. 2K508SP	Knife rack
41. 2K509SP	Drawers
42. 2K511SP	Deep fat fryer
43. 2K512SP	Range
44. 2K513SP	Freeze box door
45. *	Replace hyd. air flask fdn. bolts

\*Contract item no number.

## II. POST

DELIVERY  
DEFICIENCY  
ITEMS (PDDIs)

<u>ITEMS (PDDIs)</u>	<u>DESCRIPTION</u>
1. PDDI-2	Emerg. prpln. motor
2. PDDI-6	NAV ID mast
3. PDDI-11	ASW-6 hydro. leak
4. PDDI-13	Stbd SSTG L.O. pressure
5. PDDI-20	Circuit breakers AQB-F101
6. PDDI-23	AN/WQC-2 hydrophone
7. PDDI-28	L-1 solenoid HP-389
8. PDDI-36	Trim disch. pres. transducer
9. PDDI-37	Stern light socket
10. PDDI-38	Forward trim tank
11. PDDI-46	MS-3 hyd. operator
12. PDDI-48	Main thrust bearing
13. PDDI-50	CF-109 leaks
14. PDDI-52	ASW-175 leaks
15. PDDI-55	MS-4 failed drift ck.
16. PDDI-57	10,000 GPD distillate pumps
17. PDDI-60	R-114 humidity indicators
18. PDDI-62	AHP-11 leaks
19. PDDI-65	1600 GPD brazed joint leaks
20. PDDI-66	R-114 refrigerant leak
21. PDDI-73	3" launcher firing valve (CL-19)
22. PDDI-74	Relief valve SD-9 leaks
23. PDDI-79	CF-49 misalignment
24. PDDI-87	3" launcher disconnect
25. PDDI-88	No. 1 periscope oil leak

ATTACHMENT "C"

Contractor responsible items (cont'd)

<u>POST DELIVERY DEFICIENCY ITEMS (PDDIs)</u>	<u>DESCRIPTION</u>
26. PDDI-94	RDF mast indication
27. PDDI-98	1SB salinity panel
28. PDDI-99	DE 5 leaks
29. PDDI-101	Drain priming pump
30. PDDI-103	Rudder handwheel control
31. PDDI-104	Aux. tank No. 3 pres. gage
32. PDDI-110	Frame 87 flood door
33. PDDI-112	Shaft noise
34. PDDI-114	No. 3 MFP motor bearing
35. PDDI-118	L.P. air comp. reg. valve
36. PDDI-119	AHP-511 leaks
37. PDDI-120	AHP-528 will not seat
38. PDDI-121	AHP-510 leaks
39. PDDI-124	Whistle door
40. PDDI-125	No. 2 SSTG forward vent
41. PDDI-126	No. 2 SSTG mod vent
42. PDDI-127	SPM ind. light
43. PDDI-128	Amine tank transmitter
<b>III. <u>SILENCING</u></b>	
<u>ITEMS (SIs)</u>	<u>DESCRIPTION</u>
1. SI-2(2)	Propulsion lube oil pumps
2. SI-6(3)	Diesel airborne noise
3. SI-13(2)	SINs system tones
4. SI-20(3)	High pressure air compressors
5. SI-30	Platform noise monitoring system

SSN 693  
KNOWN DEFICIENCIES

A. Contractor responsible ("K")

<u>INSURV ITEMS</u>	<u>DESCRIPTION</u>
1. 2GO25AX (I)	HP air bottle hold-down bolts
2. 2GO25AX (II)	R114 sight level glass indicator

B. Government responsible ("G")

<u>INSURV ITEMS</u>	<u>DESCRIPTION</u>
1. 2KO12HB	Bridge access trunk drain
2. 1K004MP	T.G.L.O. vent fog precipitators
3. 2KO20AX (d)	Diesel engine noise

C. Responsibility to be determined  
Contractor to investigate ("KI")

<u>I. INSURV ITEMS</u>	<u>DESCRIPTION</u>
1. 2GO25AX (III)	Hyd. power plant shock violation
2. 2GO25AX (IV)	Sanitary tank shock clearance
3. 2GO25AX (V)	Replace flexible hoses
4. 2KO27MP (III)	Main turbine throttle control
5. 2KO27MP (V)	ASW pump sound mount
6. 2KO17EL	400c M.G. sets 1 & 2 commutator
7. 2KO16P (II)	Hull fairness tolerance

ATTACHMENT E

<u>APPROPRIATION</u> <u>SHIP ACR SYMBOL &amp; SUBHEAD</u>	<u>OBJECT</u> <u>CLASS</u>	<u>BUREAU</u> <u>CONTROL</u> <u>NO.</u>	<u>SUB-</u> <u>ALLOT</u> <u>NO.</u>	<u>AUTH</u> <u>ACCTG</u> <u>ACTIVITY</u>	<u>TRANS</u> <u>TYPE</u>	<u>PROPERTY</u> <u>ACCTG</u> <u>ACTIVITY</u>	<u>COST CODE</u>	<u>TRANSACTION AMOUNT</u>
<b>CRREDIT</b>								
SSN689 AJ 1721611.8452	031	57995	0	065872	2B	000000	002020311215	\$4,800,000 CR
SSN691 AK 1721611.8452	031	61995	0	065872	2B	000000	002078211215	\$4,800,000 CR
SSN693 AL 1721611.8452	031	61995	0	065872	2B	000000	002078411215	\$4,800,000 CR
SSN695 AM 1721611.8422	031	14995	0	065872	2B	000000	002078611215	\$4,800,000 CR
SSN689 AA 17M1611.8420	031	62995	0	065872	2K	000000	002020311211	\$1,600,000 CR
SSN689 AP 1721611.8452	031	SA3M6	0	068342	2B	000000	202032110000	\$1,400,000 CR
SSN691 AB 17M1611.8421	031	11995	0	065872	2K	000000	002078211211	\$2,100,000 CR
SSN693 AC 17M1611.8421	031	11995	0	065872	2K	000000	002078411211	\$2,000,000 CR
SSN695 AD 1721611.8422	031	14995	0	065872	2B	000000	002078611211	\$1,900,000 CR
<b>DEBIT</b>								
SSN689 AJ 1721611.8452	031	57995	0	065872	2B	000000	002020311215	\$4,800,000 DR
SSN691 AK 1721611.8452	031	61995	0	065872	2B	000000	002078211215	\$4,800,000 DR
SSN693 AL 1721611.8452	031	61995	0	065872	2B	000000	002078411215	\$4,800,000 DR
SSN695 AM 1721611.8422	031	14995	0	065872	2B	000000	002078611215	\$4,800,000 DR
SSN689 AA 17M1611.8420	031	62995	0	065872	2K	000000	002020311211	\$1,600,000 DR
SSN689 AP 1721611.8452	031	SA3M6	0	068342	2B	000000	202032110000	\$1,400,000 DR
SSN691 AB 17M1611.8421	031	11995	0	065872	2K	000000	002078211211	\$2,100,000 DR
SSN693 AC 17M1611.8421	031	11995	0	065872	2K	000000	002078411211	\$2,000,000 DR
SSN695 AD 1721611.8422	031	14995	0	065872	2B	000000	002078611211	\$1,900,000 DR
SSN689 AT 17416118547	031	SA3M2	0	068342	2B	000000	202032110000	\$4,218,927 DR
SSN691 AU 17416118547	031	SA3M4	0	068342	2B	000000	207822110000	\$3,311,379 DR
SSN693 AW 17M16118421	031	11995	0	065872	2K	000000	002078411211	\$2,450,000 DR
SSN693 AV 17416118547	031	SA3M4	0	068342	2B	000000	207842110000	\$ 517,323 DR
SSN695 AX 17M16118422	031	14995	0	065872	2K	000000	002078611211	\$2,964,508 DR

Modification No. P00026 to Contract N00024-71-C-0270 applies the provisional contract price increases and payments authorized per Modifications P00015 and P00024 to this settlement.

STANDARD FORM 30, JULY 1950 GENERAL SERVICES ADMINISTRATION REG. PROC. ISO. (41 CFR 1-16.101)			AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		PAGE 1 OF 11
1. AMENDMENT/MODIFICATION NO. P00014		2. EFFECTIVE DATE Attached	3. REQUESTION/PURCHASE REQUEST NO.		4. PROJECT NO. (If applicable)
5. ISSUED BY Chief of Naval Material (OOX) Department of the Navy Washington, D. C. 20360		CODE N00024	6. ADMINISTERED BY (If other than block 5) Supervisor of Shipbuilding Conversion & Repair, USN Newport News, Virginia 23607		CODE N62793
7. CONTRACTOR'S NAME AND ADDRESS NEWPORT NEWS SHIPBUILDING & DRY DOCK CO. 4101 WASHINGTON AVE. NEWPORT NEWS, VIRGINIA 23607 <small>(Street, city, county, state, and ZIP Code.)</small>			8. AMENDMENT OF SOLICITATION NO. DATE: (See block 9)		AMENDMENT OF CONTRACT/ORDER NO. N00024-69-C-0307 DATE: 69JUL25 (See block 11)
9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS <input type="checkbox"/> The above numbered solicitation is amended as set forth in block 12. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods: * (a) By signing and returning a copy of this amendment (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
10. ACCOUNTING AND APPROPRIATION DATA (If required)					
11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS (a) <input type="checkbox"/> This Change Order is issued pursuant to _____ The changes set forth in block 12 are made in the above numbered contract/order. (b) <input type="checkbox"/> The above numbered contract/order is modified to reflect the administrative changes (such as changes in pricing offer, appropriation code, etc.) set forth in block 12. (c) <input checked="" type="checkbox"/> This Supplemental Agreement is entered into pursuant to authority of Provisions of the Contract It modifies the above numbered contract as set forth in block 12.					
12. DESCRIPTION OF AMENDMENT/MODIFICATION See attached					
<small>Except as provided herein, all terms and conditions of the document referenced in block 4, as heretofore changed, remain unchanged and in full force and effect.</small>					
13. <input type="checkbox"/> CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT <input checked="" type="checkbox"/> CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 3 COPIES TO ISSUING OFFICE					
14. NAME OF CONTRACTOR/OFFEROR BY C. E. DARD <small>(Signature of person authorized to sign)</small>			17. UNITED STATES OF AMERICA BY <i>F. F. Manganaro</i> <small>(Signature of Contracting Officer)</small>		
15. NAME AND TITLE OF SIGNER (Type or print) C. E. DARD Executive Vice President Newport News Shipbuilding		16. DATE SIGNED 5 OCT 1970	18. NAME OF CONTRACTING OFFICE (Type or print) F. F. MANGANARO, RADM, USN Chairman, Navy Claims Settlement Board		19. DATE SIGNED 5 OCT 1970

831607

Description of ModificationApplicable Ships: SSN 686 and SSN 687

WHEREAS, the parties consider all work completed under this contract, except as otherwise specifically agreed below, and the vessels constructed hereunder have been delivered to the Government; and

WHEREAS, the Contractor has submitted claims and requests for equitable adjustment in the contract price pursuant to various provisions of this contract and the Contracting Officer, upon analysis of the said claims and requests for equitable adjustment, has determined them to be meritorious in certain respects; and

WHEREAS, the parties have agreed that the Contract Delivery Date of SSN 686 and SSN 687 shall be the actual delivery date without allocation of responsibility; and

WHEREAS the parties have agreed to the resolution of other outstanding issues in addition to the settlement of the requests for equitable adjustment; and

WHEREAS, the Government has agreed to adjust the pricing structure and delivery dates of the contract and in exchange for these and other agreements contained herein the Contractor has agreed to give a release as set forth in paragraph 9 below, subject to the reservations set forth in paragraph 10 below; and

WHEREAS, differences exist between the parties as to the computation of escalation; the Contractor nevertheless agrees that the Adjustments to Compensation in this modification include any and all escalation to which he is entitled by reason of the adjustments contained in this modification; and

WHEREAS, differences exist between the parties as to:  
(1) computation, allowance and allocation to the Contractor of General and Administrative costs of Tenneco Inc. and Tenneco Corporation; and (2) computation, allowance and allocation of pension costs of the Contractor including the amount contributed to the TENNECO Annuity Plan, the premiums paid to Tennessee Life Insurance for reversionary benefits and the allocation of identified actuarial gains and losses directly to the Contractor; and the parties intend that the total final negotiated cost of this contract as hereinafter established includes any and all consideration for (1) and (2) above with respect to this contract; and



WHEREAS, the disputed matters references in the immediately preceding paragraph have been resolved under this contract and all other contracts between the parties by agreement that Home Office Expense for the year 1972 and forward shall be in accordance with CAS 403 and shall be allowed as heretofore approved by DCAA for the years prior to 1972; the Contractor's appeal to the Armed Services Board of Contract Appeals docketed as No. 21625 shall be withdrawn with prejudice; and the Pension Costs referred to in the immediately preceding paragraph which were previously included in provisional disallowances by DCAA, suspended, or disapproved shall be allowed for Contract N00024-67-C-0325 and disallowed for all other contracts between the parties; and

WHEREAS, differences exist between the parties as to the allowability of State tax accruals on this and other contracts; the parties intend that accrued amounts now suspended or disapproved by DCAA will be allowable for this contract to the extent that such amounts will be payable for the year in which this modification becomes effective and the total final negotiated costs of this contract as hereinafter established include any and all consideration for State tax accruals; and the parties intend that this issue shall be resolved for all other contracts using the same principles, i.e., state taxes accrued for payment in a current year are allowable if payable by the contractor in the following year by or at the time the tax return is filed for the current year; and

WHEREAS, pursuant to Modification P00013 the Contractor has received a provisional increase in contract price in the amount of \$3,000,000 for reasons identified in that modification; and

WHEREAS, on 7 March 1978, the Contracting Officer issued a decision, on the basis of this claim analysis, finding the Contractor entitled to \$2,934,570 and requesting repayment of \$65,430, which is the amount by which the provisional increase in contract price exceeded the amount of entitlement subsequently determined; and

WHEREAS, on 31 March 1978, the Contractor appealed the Contracting Officer's decision to the Armed Services Board of Contract Appeals (ASBCA), which appeal was docketed as ASBCA No. 22844; and

WHEREAS, the parties on 26 April 1978 executed a deferred payment agreement, in which they agreed that the repayment of the \$65,430 be deferred in accordance with the provisions of that agreement; and

WHEREAS, the Government has asserted or may assert claims for noncorrection of deficiencies and/or noncompletion of contract work; and the parties desire to fully and finally settle said claims as part of the price adjustment established in this modification; and

WHEREAS, the Government has asserted or may assert claims for correction of Contractor-responsible deficiencies arising during the guaranty periods of the vessels and the parties desire to fully and finally settle said claims as part of the price adjustment established in this modification; and

WHEREAS, the parties have agreed on an adjustment in the contract price by reason of the foregoing matters and in accordance with the provisions of Article 15, Incentive Price Revision (Firm Target), the total final negotiated cost, the adjustment for profit and the final contract price have been established and determined, all of the foregoing as herein-after set forth; and

WHEREAS, the parties have agreed to the full and final settlement hereinafter described;

NOW, THEREFORE, the parties hereto agree:

1. Article 3, Delivery of Completed Vessels, is hereby modified as follows:

<u>SHIP</u>	<u>DATE</u>
SSN 686	31 December 1974
SSN 687	12 August 1975

2. The following are hereby fully and finally settled:

(a) The Contractor's Request for Equitable Adjustment dated 8 March 1976, as amended. By reason of the price adjustments made and set forth in paragraph 6(a) of this Modification, the amount of the provisional increase in contract price effected by Modification P00013 are reduced to zero.

(b) All (1) changes, (2) HMRs, (3) FMRs, (4) letters of direction, and (5) requests for proposals under this contract.

(c) All claims of the Contractor under this contract for compensation under Clause 36, Federal, State, and Local Taxes.

(d) Any and all liabilities which are remised, re-leased and discharged under paragraph 9 below subject to the reservations set forth in paragraph 10 below.

(e) Any claims of the Contractor under this contract relating to (1) computation, allowance and allocation to the Contractor of General and Administrative costs of Tenneco Inc. and Tenneco Corporation; and (2) computation, allowance and allocation of pension costs of the Contractor including the amount contributed to the TENNECO Annuity Plan, the premiums paid to Tennessee Life Insurance for reversionary benefits and the allocation of identified actuarial gains and losses directly to the Contractor.

(f) Any and all of the following liabilities of the Contractor to the Government, express or implied, whether known or unknown, from which the Government hereby releases and forever discharges the Contractor, subject to the reservations in paragraph 10 below.

(1) Under Clause 7, Inspection, Clause 6, Guaranty Period, and other provisions of this contract for noncorrection of deficiencies and noncompletion of contract work; and

(2) For equitable reduction of the contract price of this contract, for reimbursement of Government costs under this contract, for disallowance of Contractor costs under this contract, or for money damages arising from the performance of work of this contract; all of the foregoing based upon acts or omissions (including negligence) of the Contractor under this contract, which such acts or omissions occurred prior to the effective date of this modification.

3. Pursuant to Clause 19, Final Settlement, the Contract is hereby finally settled, subject to the reservations set forth in paragraph 10 below.

4. Upon execution of this modification, the parties will enter into a stipulation whereby the appeals designated as ASBCA Nos. 22844 and 21625 will be dismissed with prejudice, subject to reinstatement only in the event that all payments required by this modification are not made to the Contractor.

5. The deferred payment agreement dated 26 April 1978 is hereby cancelled and superceded by this Modification.

6. (a) The following adjustments are made:

(1) Equitable Adjustment in Contract Price:

Target Cost	\$	8,533,520	Increase
Target Profit	\$	853,352	Increase
Target Price	\$	9,386,872	Increase
Ceiling Price	\$	9,386,872	Increase

(2) Adjustments to Compensation: These are adjustments not reflected in (1) above which are being made separately from the adjustments in (1) above so as not to affect the Contractor's profit or loss otherwise determined under Article 15, Incentive Price Revision (Firm Target). The Contractor agrees that these adjustments include any and all escalation to which he is entitled by reason of the adjustments contained in this modification:

\$ 12,511,506 Increase

(b) By reason of all adjustments to date, including the above adjustments, the revised contract pricing structure is:

Target Cost	\$	100,468,684
Target Profit	\$	9,098,618
Target Price	\$	109,567,302
Ceiling Price	\$	118,391,906

(c) The Total Final Negotiated Cost of performing this contract is hereby established pursuant to Article 15, Incentive Price Revision (Firm Target), as

\$ 130,751,097

(d) Pursuant to Article 15, Incentive Price Revision (Firm Target), the "Adjustment for Profit" is established as follows:

Target Cost	\$	100,468,684
Total Final Negotiated Cost	\$	130,751,097
Underrun/(Overrun)	\$	( 30,282,413)
Target Profit	\$	9,098,618

Adjustment to  
Target Profit  
Based On Article 5 \$ ( 21,457,809) \_\_\_\_\_

Adjustment for  
Profit \$ ( 12,359,191) \_\_\_\_\_

(e) Pursuant to Article 6, Incentive Price Revision (Firm Target), the "Total Final Price" is established as follows:

Total Final  
Negotiated Cost \$ 130,751,097 \_\_\_\_\_

Adjustment for  
Profit \$ ( 12,359,191) \_\_\_\_\_

Adjustments to  
Compensation in  
Article 14,  
Compensation (includ-  
ing adjustments pur-  
suant to Clause 40,  
Federal, State and  
Local Taxes) \$ 12,511,506 \_\_\_\_\_

Total Final Price \$ 130,903,412 \_\_\_\_\_

7. Notwithstanding anything else to the contrary in this contract, there shall be no contract withholdings or retainages by the Government of any kind.

8. Notwithstanding anything else in this modification, the rights of the parties regarding CVN 70 shall be covered exclusively by the definitized contract to be executed.

9. Release

a. As used in Paragraph 9.

(1) "Events" refer to any other contract modifications, any Government breach, any Government tort, any change orders, any stop work orders, any suspensions of work, any Government actions or omissions pertaining to Government property or information, and any other occurrences, actions or omissions.

(2) "Covered Events" refers to Events occurring before the date set forth in Block 19 of SF 30 (page 1 of this modification) whether formal or constructive, and whether known or unknown to either or both of the parties as of the date set forth in Block 19 of SF 30 (page 1 of this modification) all of which events arise out of, under, or are in any manner connected with:

(i) this contract; or

(ii) any other Government contract (with this or any other Contractor) or contract between the Contractor and any third party.

(3) "SSN 686/687 Events" refers to Events occurring before the date set forth in Block 19 of SF 30 (page 1 of this modification) whether formal or constructive, and whether known or unknown to either or both of the parties as of the date set forth in Block 19 of SF 30 (page 1 of this modification) but only to the extent such events both (i) arise out of or under this contract, and (ii) impact other contracts solely by reason of their impact on this contract.

b. In consideration of the provisions of this modification, the Contractor, for itself, its successors, assigns, vendors, suppliers and subcontractors, hereby remises, releases and forever discharges the Government, its officers, agents, and employees from (i) any and all entitlement of the Contractor to equitable adjustment of the contract price and delivery schedule of this, and only this, contract by reason of Covered Events, (ii) any and all liabilities to the Contractor for money damages and/or other relief for the impact of Covered Events upon this, and only this, contract, (iii) any and all entitlement of the Contractor to equitable adjustment of the contract price and delivery schedules of any other Government contract or contract between the Contractor and any third party by reason of SSN 686/687 Events, and (iv) any and all liabilities to the Contractor for money damages and/or other relief for the impact of SSN 686/687 Events upon any other Government contract or contract between the Contractor and any third party.

c. (1) The Contractor hereby confirms and acknowledges that in agreeing to the terms of this modification, it has considered and made full allowance for any and all costs under, and other impacts upon (i) this contract by reason of Covered Events and (ii) any other contract with the Government and with any third party by reason of SSN 686/687 Events; whether or not such costs and other impacts are known or

unknown or foreseeable or unforeseeable as of the effective date set forth in Block 19 of SF 30 (page 1 of this modification) whether or not such costs and other impacts have been discussed with, or for any reason reserved for future discussion with, the Government, or have been made the basis for other assertion of claims or requests for equitable adjustment and whether or not such costs or other impacts were, or are, incurred and sustained, respectively, before or after the date set forth in Block 19 of SF 30 (page 1 of this modification).

(2) The term "costs" as used in subparagraph (1) immediately above include, but are not limited to:

- (i) direct labor and material costs ("hard-core"),
- (ii) delays,
- (iii) disruptions, dislocations, acceleration, and inefficiencies in performance,
- (iv) interest costs and any other consideration for financing,
- (v) claim preparation costs, requests for equitable adjustment preparation costs, and
- (vi) overhead costs.

10. Notwithstanding any other provision of this modification, the following rights are hereby reserved, it being expressly agreed that the parties do not thereby acknowledge liability therefor:

(a) All rights and entitlement which the Government may have against the Contractor founded upon P.L. 87-653 to the extent that Certificates of Current Cost and Pricing Data have been provided in connection with this modification; and 31 U.S.C. 231; 18 U.S.C. 286; 18 U.S.C. 287; and 18 U.S.C. 1001.

(b) All rights and obligations of the parties relating to the CGN 41, except that the release in paragraph 9 above includes all costs, as defined in paragraph 9.c.(2), incurred upon the SSN 686 and SSN 687 resulting from events occurring on the CGN 41.

(c) All rights of the Contractor under the following provisions of the contract:

(i) "Insurance - Property Loss or Damage - Liability to Third Persons".

(ii) "Additional Insurance Provisions."

(iii) "Nuclear Risk - Indemnification Under Public Law 85-804."

(d) All rights and liabilities of the parties arising under the contract articles, if any, or otherwise which relate to reproduction rights, patent infringements, inventions, applications for patent and patents, including rights to assignments, invention reports, and licenses, and in covenants of indemnity against patent risks.

(e) All rights and liabilities of the parties with respect to the future care and disposition by the Contractor of Government property remaining in his custody.

(f) All rights the Contractor may have to royalty payments under the Contract provision entitled "Value Engineering Incentive."

(g) All rights and obligations of the parties relating to Contractor-acquired material made obsolete or excess as a result of contract changes as specifically set forth below:

(i) Material made obsolete or excess as a result of contract changes has been identified in change pricing proposals submitted to the Government any such material which has been so identified but not disposed of pursuant to instructions from the Government; provided if any such material is not available, the Contractor may substitute equivalent material or pay the original purchase price of the material to the Government.

(ii) The Government shall provide disposition instructions for the material described in subparagraph (i) above, and the Contractor shall dispose of such material in accordance with such instructions. The Contractor shall be reimbursed by the Government for the cost, plus a reasonable profit, of such disposition.



11. Promptly upon effectiveness of this modification and the submission of proper invoices, the Government shall make the payments required under the terms of this contract as modified herein. If such payment is not made within 60 days of the effectiveness of this modification, the Contractor shall have the right to declare this modification to be of no force and effect and the parties shall be restored to their respective rights and remedies existing prior to the execution of this modification.

12. (a) The parties hereto agree that this modification shall become effective only upon receipt by the Contractor of written notice by the Contracting Officer that appropriations have been obligated to this contract in an amount sufficient to fund fully the Government's obligations under this contract, including the obligations provided for in this modification. In any event, should such notice not be given by March 31, 1979, neither party shall be bound by the terms contained herein.

(b) Modification P00037 to Contract N00024-70-C-0252, Modification P00014 to Contract N00024-69-C-0307, Modification P00036 to Contract N00024-70-C-0269, Modification P00026 to Contract N00024-71-C-0270, Modification P00067 to Contract N00024-67-C-0325, and Modification P00028 to Contract N00024-68-C-0355 reflect various elements of an overall settlement of a number of Navy and Contractor issues, and, as such, are inseverably related to each other. It is specifically agreed that the effectiveness of each individual modification is conditioned upon the execution and effectiveness of all of the modifications identified above.

13. The parties agree that notwithstanding the contingent nature of this modification as described in paragraph 12 above, the Government will promptly release all contract withholdings and retainages. If the modification does not become effective the payments made shall be considered provisional in nature and shall be subject to repayment, if appropriate, to the Government on final settlement of the contract.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				PAGE 1	OF 11
<small>STANDARD FORM 30, JULY 1960 GENERAL SERVICES ADMINISTRATION FD-200C (REV. 10-1-70) 1-118-101</small>					
1. AMENDMENT/MODIFICATION NO. P00036		2. EFFECTIVE DATE See Attached	3. SOLICITATION/PURCHASE REQUEST NO.	4. PROJECT NO. (If applicable)	
5. ISSUED BY Chief of Naval Material (Code 00X) Department of the Navy Washington, D. C. 20360		CODE N00024	6. ADMINISTERED BY (If other than block 3) Supervisor of Shipbuilding Conversion & Repair, USN Newport News, Virginia 23607	CODE N62793	
7. CONTRACTOR NAME AND ADDRESS NEWPORT NEWS SHIPBUILDING & DRY DOCK CO 4101 WASHINGTON AVENUE NEWPORT NEWS, VIRGINIA 23607 <small>(Street, city, county, state, and ZIP Code)</small>			CODE 43689	FACILITY CODE	8. AMENDMENT OF SOLICITATION NO. <input type="checkbox"/> AMENDMENT OF SOLICITATION NO. _____ DATED _____ (See block 9) <input checked="" type="checkbox"/> MODIFICATION OF CONTRACT/ORDER NO. N00024-70-C-0269 DATED 70FEB27 (See block 11)
9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS <input type="checkbox"/> The above numbered solicitation is awarded as set forth in block 12. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. <small>Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as extended, by one of the following methods:            (a) By signing and returning _____ copies of this amendment (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.</small>					
10. ACCOUNTING AND APPROPRIATION DATA (If required)					
11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS (a) <input type="checkbox"/> This Change Order is issued pursuant to _____ <small>The changes set forth in block 12 are made to the above numbered contract/order.</small> (b) <input type="checkbox"/> The above numbered contract/order is modified to reflect administrative changes (such as changes in paying office, appropriation case, etc.) set forth in block 12. (c) <input type="checkbox"/> This Supplemental Agreement is entered into pursuant to authority of <u>The provisions of the contract and P.L. 85-804.</u> <small>It modifies the above numbered contract as set forth in block 12.</small>					
12. DESCRIPTION OF AMENDMENT/MODIFICATION  See Attached					
<small>Except as provided herein, all terms and conditions of the document referenced in block 8, as herebefore changed, remain unchanged and in full force and effect.</small>					
13. <input type="checkbox"/> CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT <input checked="" type="checkbox"/> CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN <u>3</u> COPIES TO ISSUING OFFICE					
14. NAME OF CONTRACTOR/OFFEROR C. E. DART <small>(Signature of person authorized to sign)</small>			17. UNITED STATES OF AMERICA BY <u>F. F. Manganaro</u> <small>(Signature of Contracting Officer)</small>		
15. NAME AND TITLE OF SIGNER (Type or print) C. E. DART Executive Vice President Newport News Shipbuilding		16. DATE SIGNED 5 OCT 1970	18. NAME OF CONTRACTING OFFICE (Type or print) F. F. MANGANARO/RADM, USN Chairman, Navy Claims Settlement Board		19. DATE SIGNED 5 OCT 70

831607

Description of ModificationApplicable Ship: SSN 688

WHEREAS, except as noted herein, the parties consider all work completed under this contract and the vessels constructed hereunder have been delivered to the Government; and

WHEREAS, the Contractor has submitted claims and requests for equitable adjustment in the contract price pursuant to various provisions of this contract and the Contracting Officer, upon analysis of the said claims and requests for equitable adjustment, has determined them to be meritorious in certain respects; and

WHEREAS, the parties have agreed that the Contract Delivery Date of SSN 688 shall be the actual delivery date without allocation of responsibility; and

WHEREAS, the parties have agreed to the resolution of other outstanding issues in addition to the settlement of the requests for equitable adjustment; and

WHEREAS, the Government has agreed to adjust the pricing structure and delivery dates of the contract and in exchange for these and other agreements contained herein the Contractor has agreed to give a release as set forth in paragraph 9 below, subject to the reservations set forth in paragraph 10 below; and

WHEREAS, differences exist between the parties as to the computation of escalation; the Contractor nevertheless agrees that the Adjustments to Compensation in this modification include any and all escalation to which he is entitled by reason of the adjustments contained in this modification; and

WHEREAS, differences exist between the parties as to:  
(1) computation, allowance and allocation to the Contractor of General and Administrative costs of Tenneco Inc. and Tenneco Corporation; and (2) computation, allowance and allocation of pension costs of the Contractor including the amount contributed to the TENNECO Annuity Plan, the premiums paid to Tennessee Life Insurance for reversionary benefits and the allocation of identified actuarial gains and losses directly to the Contractor; and the parties intend that the total final negotiated cost of this contract as hereinafter established includes any and all consideration for (1) and (2) above with respect to this contract; and

WHEREAS, the disputed matters referenced in the immediately preceding paragraph have been resolved under this contract and all other contracts between the parties by agreement that Home Office Expense for the year 1972 and forward shall be in accordance with CAS 403 and shall be allowed as heretofore approved by DCAA for the years prior to 1972; the Contractor's appeal to the Armed Services Board of Contract Appeals docketed as No. 21625 shall be withdrawn with prejudice; and the Pension Costs referred to in the immediately preceding paragraph which were previously included in provisional disallowances by DCAA, suspended, or disapproved shall be allowed for Contract N00024-67-C-0325 and disallowed for all other contracts between the parties; and

WHEREAS, differences exist between the parties as to the allowability of State tax accruals on this and other contracts; the parties intend that accrued amounts now suspended or disapproved by DCAA will be allowable for this contract to the extent that such amounts will be payable for the year in which this modification becomes effective, and the total final negotiated costs of this contract as hereinafter established include any and all consideration for State tax accruals; and the parties intend that this issue shall be resolved for all other contracts using the same principles, i.e., state taxes accrued for payment in a current year are allowable if payable by the contractor in the following year by or at the time the tax return is filed for the current year; and

WHEREAS, the Assistant Secretary of the Navy, by Memorandum of Decision dated October 5, 1978, has determined that, as part of this agreement, it will facilitate the national defense to invoke P.L. 85-804 to modify this contract by including \$2,500,000 as part of the "Adjustments to Compensation" in paragraph 5 below; and

WHEREAS, pursuant to Modifications P00031 and P00035 the Contractor has received a provisional increase in contract price in the amount of \$10,588,000 and \$2,000,000 respectively for reasons identified in those modifications; and

WHEREAS, the Government has asserted or may assert claims for noncorrection of deficiencies and/or noncompletion of contract work; and the parties desire to fully and finally settle said claims as part of the price adjustment established in this modification; and

WHEREAS, the Government has asserted or may assert claims for correction of Contractor-responsible deficiencies arising during the guaranty periods of the vessels and the parties desire to fully and finally settle said claims as part of the price adjustment established in this modification; and

WHEREAS, the parties have agreed on an adjustment in the contract price by reason of the foregoing matters and in accordance with the provisions of Article 5, Incentive Price Revision (Firm Target), the total final negotiated cost, the adjustment for profit and the final contract price have been established and determined, all of the foregoing as hereinafter set forth; and

WHEREAS, the parties have agreed to the full and final settlement hereinafter described; and

NOW, THEREFORE, the parties hereto agree:

1. Article 3, Delivery of Completed Vessels, is hereby modified as follow:

<u>SHIP</u>	<u>DATE</u>
SSN 688	2 November 1976

2. The following are hereby fully and finally settled:

(a) The Contractor's Requests for Equitable Adjustment dated 7 August 1975, as amended and 8 March 1976, as amended. By reason of the price adjustments made and set forth in paragraph 5.a of this Modification, the amount of the provisional increases in contract price effected by Modifications P00025 and P00031 are reduced to zero.

(b) All (1) changes, (2) HMRs, (3) FMRs, (4) letters of direction, and (5) requests for proposals under this contract.

(c) All claims of the Contractor under this contract for compensation under Clause 40, Federal, State, and Local Taxes.

(d) Any and all liabilities which are remised, released and discharged under paragraph 9 below subject to the reservations set forth in paragraph 10 below.

(e) Any claims of the Contractor under this contract relating to (1) computation, allowance and allocation to the Contractor of General and Administrative costs of Tenneco Inc. and Tenneco Corporation; and (2) computation, allowance and allocation of pension costs of the Contractor including the amount contributed to the TENNECO Annuity Plan, the premiums paid to Tennessee Life Insurance for reversionary benefits and the allocation of identified actuarial gains and losses directly to the Contractor.

(f) Any and all of the following liabilities of the Contractor to the Government, express or implied, whether known or unknown, which the Government hereby releases and forever discharges the Contractor, subject to the reservations in paragraph 10 below.

(1) Under Clause 7, Inspection, Clause 6, Guaranty Period, and other provisions of this contract for non-correction of deficiencies and noncompletion of contract work; and

(2) For equitable reduction of the contract price of this contract, for reimbursement of Government costs under this contract, for disallowance of Contractor costs under this contract, or for money damages arising from the performance of work of this contract; all of the foregoing based upon acts or omissions (including negligence) of the Contractor under this contract, which such acts or omissions occurred prior to the effective date of this modification.

3. Pursuant to Clause 20, Final Settlement, the Contract is hereby finally settled, subject to the reservations set forth in paragraph 10 below.

4. Under the authority of the Act of August 28, 1958, as amended, (Public Law 85-804); 72 Stat. 972, as amended by 87 Stat. 605 (1973); 50 U.S.C. 1431-1435, as amended, and Executive Order 10789 of 14 November 1958 (23 Fed. Reg. 8897) as amended by Executive Order 11051, dated 27 September 1962, Executive Order 11382 of 28 November 1967, and Executive Order 11610 of July 22, 1971, and other applicable statute law and regulation, and in order to facilitate the national defense and in consideration of the mutual covenants of the parties, it is agreed that \$2,500,000 be included as part of the "Adjustments to Compensation" in paragraph 5, and such amount is included. The following modifications are made to the contract:

(a) Clause 31 of the General Provisions entitled "Examination of Records" is deleted in its entirety and the ASPR 7-104.15 Clause entitled "Examination of Records by Comptroller General (1975 JUN)" is substituted therefor.

(b) Clause 49 of the General Provisions entitled "Equal Opportunity" is deleted in its entirety and the ASPR 7-103.18(a) Clause entitled "Equal Opportunity (1976 JUL)" is substituted therefor.

5. (a) The following adjustments are made:

(1) Equitable Adjustment in Contract Price:

Target Cost	\$ 14,620,000	Increase
Target Profit	\$ 1,462,000	Increase
Target Price	\$ 16,082,000	Increase
Ceiling Price	\$ 18,275,000	Increase

(2) Adjustments to Compensation: These are adjustments not reflected in (1) above which are being made separately from the adjustments in (1) above so as not to affect the Contractor's profit or loss otherwise determined under Article 6, Incentive Price Revision (Firm Target). The Contractor agrees that these adjustments include any and all escalation to which he is entitled by reason of the adjustments contained in this modification:

\$ 8,778,867 Increase

(b) By reason of all adjustments to date, including the above adjustments, the revised contract pricing structure is:

Target Cost	\$ 89,134,937
Target Profit	\$ 10,635,818
Target Price	\$ 99,770,755
Ceiling Price	\$ 111,117,289

(c) The Total Final Negotiated Cost of performing this contract is hereby established pursuant to Article 6, Incentive Price Revision (Firm Target), as

\$ 113,783,578

(d) Pursuant to Article 6, Incentive Price Revision (Firm Target), the "Adjustment for Profit" is established as follows:

Target Cost	\$ 89,134,937
Total Final Negotiated Cost	\$ 113,783,578
Underrun/(Overrun)	\$ ( 24,648,641)
Target Profit	\$ 10,635,818

Adjustment to  
Target Profit  
Based on Article 5 \$ ( 13,302,107)

Adjustment for  
Profit \$ ( 2,666,289)

(e) Pursuant to Article 6, Incentive Price Revision (Firm Target), the "Total Final Price" is established as follows:

Total Final  
Negotiated Cost \$ 113,783,578

Adjustment for  
Profit \$ ( 2,666,289)

Adjustments to  
Compensation in  
Article 7,  
Compensation (includ-  
ing adjustments pur-  
suant to Clause 40,  
Federal, State and  
Local Taxes) \$ 18,104,900

Total Final Price \$ 129,222,189

6. Upon execution of this modification, the parties will enter into a stipulation whereby the appeals designated as ASBCA No. 21625 will be dismissed with prejudice, subject to reinstatement only in the event that all payments required by this modification are not made to the Contractor.

7. Notwithstanding anything else to the contrary in this contract, there shall be no contract withholdings or retainages by the Government of any kind.

8. Notwithstanding anything else in this modification, the rights of the parties regarding CVN 70 shall be covered exclusively by the definitized contract to be executed.

9. Release

a. As used in Paragraph 9.

(1) "Events" refer to any other contract modifications, any Government breach, any Government tort, any change orders, any stop work orders, any suspensions of work, any Government actions or



omissions pertaining to Government property or information, and any other occurrences, actions or omissions.

(2) "Covered Events" refers to Events occurring before the date set forth in Block 19 of SF 30 (page 1 of this modification) whether formal or constructive, and whether known or unknown to either or both of the parties as of the date set forth in Block 19 of SF 30 (page 1 of this modification) all of which events arise out of, under, or are in any manner connected with:

(i) this contract; or

(ii) any other Government contract (with this or any other Contractor) or contract between the Contractor and any third party.

(3) "SSN 688 Events" refers to Events occurring before the date set forth in Block 19 of SF 30 (page 1 of this modification) whether formal or constructive, and whether known or unknown to either or both of the parties as of the date set forth in Block 19 of SF 20 (page 1 of this modification) but only to the extent such events both (i) arise out of or under this contract, and (ii) impact other contracts solely by reason of their impact on this contract.

b. In consideration of the provisions of this modification, the Contractor, for itself, its successors, assigns, vendors, suppliers and subcontractors, hereby remises, releases and forever discharges the Government, its officers, agents, and employees from (i) any and all entitlement of the Contractor to equitable adjustment of the contract price and delivery schedule of this, and only this, contract by reason of Covered Events, (ii) any and all liabilities to the Contractor for money damages and/or other relief for the impact of Covered Events upon this, and only this, contract, (iii) any and all entitlement of the Contractor to equitable adjustment of the contract price and delivery schedules of any other Government contract or contract between the Contractor and any third party by reason of SSN 688 Events; and (iv) any and all liabilities to the Contractor for money damages and/or other relief for the impact of SSN 688 Events upon any other Government contract or contract between the Contractor and any third party.

c. (1) The Contractor hereby confirms and acknowledges that in agreeing to the terms of this modification, it has considered and made full allowance for any and all costs under, and other impacts upon (i) this contract by reason of

Covered Events and (ii) any other contract with the Government and with any third party by reason of SSN 688 Events; whether or not such costs and other impacts are known or unknown or foreseeable or unforeseeable as of the date set forth in Block 19 of SF 30 (page 1 of this modification), whether or not such costs and other impacts have been discussed with, or for any reason reserved for future discussion with, the Government, or have been made the basis for other assertion of claims or requests for equitable adjustment and whether or not such costs or other impacts were, or are, incurred and sustained, respectively, before or after the date set forth in Block 19 of SF 30 (page 1 of this modification).

(2) The term "costs" as used in subparagraph (1) immediately above include, but are not limited to:

- (i) direct labor and material costs ("hardcore"),
- (ii) delays,
- (iii) disruptions, dislocations, acceleration, and inefficiencies in performance,
- (iv) interest costs and any other consideration for financing,
- (v) claim preparation costs, requests for equitable adjustment preparation costs, and
- (vi) overhead costs.

10. Notwithstanding any other provisions of this modification, the following rights are hereby reserved, it being expressly agreed that the parties do not thereby acknowledge liability therefor:

(a) All rights and entitlement which the Government may have against the Contractor founded upon P.L. 87-653 to the extent that Certificates of Current Cost and Pricing Data have been provided in connection with this modification; and 31 U.S.C. 231; 18 U.S.C. 286; 18 U.S.C. 287; and 18 U.S.C. 1001.

(b) All rights and obligations of the parties relating to the CGN 41, except that the release in paragraph 9 above includes all costs, as defined in paragraph 9.c.(2), incurred upon the SSN 688 resulting from events occurring on the CGN 41.

(c) All rights of the Contractor under the following provisions of the contract:

(i) "Insurance - Property Loss or Damage - Liability to Third Persons".

(ii) "Additional Insurance Provisions."

(iii) "Nuclear Risk - Indemnification Under Public Law 85-804."

(d) All rights and liabilities of the parties arising under the contract articles, if any, or otherwise which relate to reproduction rights, patent infringements, inventions, applications for patent and patents, including rights to assignments, invention reports, and licenses, and in covenants of indemnity against patent risks.

(e) All rights and liabilities of the parties with respect to the future care and disposition by the Contractor of Government property remaining in his custody.

(f) All rights the Contractor may have to royalty payments under the Contract provision entitled "Value Engineering Incentive."

(g) All rights and obligations of the parties relating to Contractor-acquired material made obsolete or excess as a result of contract changes as specifically set forth below:

(i) Material made obsolete or excess as a result of contract changes has been identified in change pricing proposals submitted to the Government. The Contractor shall provide to the Government any such material which has been so identified but not disposed of pursuant to instructions from the Government; provided if any such material is not available, the Contractor may substitute equivalent material or pay the original purchase price of the material to the Government.

(ii) The Government shall provide disposition instructions for the material described in subparagraph (i) above, and the Contractor shall dispose of such material in accordance with such instructions. The Contractor shall be reimbursed by the Government for the cost, plus a reasonable profit, of such disposition.

11. Promptly upon effectiveness of this modification and the submission of proper invoices, the Government shall make the payments required under the terms of this contract as modified herein. If such payment is not made within 60 days of the effectiveness of this modification, the Contractor shall have the right to declare this modification to be of no force and effect and the parties shall be restored to their respective rights and remedies existing prior to the execution of this modification.

12. (a) The parties hereto agree that this modification shall become effective only upon receipt by the Contractor of written notice by the Contracting Officer that appropriations have been obligated to this contract in an amount sufficient to fund fully the Government's obligations under this contract, including the obligations provided for in this modification. In any event, should such notice not be given by March 31, 1979, neither party shall be bound by the terms contained herein.

(b) Modification P00037 to Contract N00024-70-C-0252, Modification P00014 to Contract N00024-69-C-0307, Modification P00036 to Contract N00024-70-C-0269, Modification P00026 to Contract N00024-71-C-0270, Modification P00067 to Contract N00024-67-C-0325, and Modification P00028 to Contract N00024-68-C-0355 reflect various elements of an overall settlement of a number of Navy and Contractor issues, and, as such, are inseverably related to each other. It is specifically agreed that the effectiveness of each individual modification is conditioned upon the execution and effectiveness of all of the modifications identified above.

13. The parties agree that notwithstanding the contingent nature of this modification as described in paragraph 12 above, the Government will promptly release all contract withholdings and retainages. If the modification does not become effective the payments made shall be considered provisional in nature and shall be subject to repayment, if appropriate, to the Government on final settlement of the contract.

UNDELIVERED CONTRACTOR DATA REQUIREMENTS LIST (CDRL) ITEMS  
ESTIMATED COMPLETION DATES (MO/YR)

<u>IDENTIFICATION NO.</u>	<u>BRIEF TITLE</u>	<u>(1) 688</u>	<u>Remarks</u>
A001AY	Ship system manual	SEE A001BA	Preliminary already delivered.
A001BB	Ship Vlv Tech Manual	Remarks	Preliminary already delivered. Final completed; waiting for Government to provide binders and index tabs.
A001BC	Weapons delivery Sys Equip. Manual	1/79	Preliminary already delivered. Final ready for Government printer.
A001BD	Steam & Electric Plant Manual	3/79	Preliminary already delivered. Final requires color printing.
A001EO	Noise Control Booklet & Drawings	Completed	
A001AS	Final Ship Drawings	Completed	
A001EV	Ship Drawing Index	1/79	
A001BT	Test Reports	Completed	
A001CF	Inclining & Trim Dive Report-Amend	Completed	At end of SSN 693 PSA.
A001BA	Equip. Tech Manuals	Remarks	Open are 14 Tech Manuals per ship, three of which are controlled by the Government. The three are A001AY & A001BB above plus the Motors and Controllers Tech Manual.

NOTES: (1) Delivery required under Contract N00024-70-C-0269  
(2) Delivery required under Contract N00024-71-C-0270

ATTACHMENT "A"

UNDELIVERED CONTRACTOR FURNISHED ON BOARD REPAIR PARTS (OBRPs)SSN 688 ShortagesStoreroom item shortages

<u>Stock Number</u>	<u>Qty</u>
9C 3030-00-528-3796	1
1H 0099-LL-HD2-B057	1
1H 0000-LL-RFS-1836	1
1H 0000-LL-RFS-1876	1
1H 0000-LL-RFS-1877	1
1H 0099-LL-HD2-D229	1

Adds

<u>Stock Number</u>		<u>Qty</u>
9N 5961-00-898-7253		1
9N 5905-00-918-2263		1
9Z 5330-00-467-0417	Seal ring	1
1H 0099-LL-HD2-0948	Spring	1
9Z 5330-00-286-2536	Seal	1
1H 0099-LL-HD2-D949	Bearing	2
1H 0000-LL-CJ6-9584	Printer	1
8Z 5330-00-889-5483	Packing	1
8N 0099-LL-HD2-D898	Seat	2
1H 0099-LL-HD2-D896	Transformer	1
1H 0000-LL-RFS-1857	Gasket	1
9G 6130-00-753-2807	Rectifier	1
9N 5905-00-847-5877	Resistor	1
9N 5930-00-402-2320	Switch	1
9N 5920-00-583-9919	Switch	1
9N 5999-00-035-7812	Contact	6
9Z 5360-00-209-7720	Spring	2
9G 6110-00-572-0817	Spring	2
9Z 5360-00-265-3667	Spring	2
9N 5950-00-886-6288	Coil	1
9G 6110-00-265-3671	Spring	1
9Z 5340-00-663-3124	Spring	1
1H 6115-00-787-8542	Spring	2
9Z 5360-00-586-4794	Spring	1
9N 5950-00-827-7121	Spring	1
9Z 5340-00-338-4057	Bumper	1
9Z 5330-00-338-4058	Packing	1
9Z 5330-00-171-5887	Retainer	1

SSN 688 (cont'd)

<u>Stock Number</u>		<u>Qty</u>
9Z 5330-00-594-0044	Packing	1
9Z 5330-00-768-7196	Wiper	66
9Z 5330-00-425-4490	Packing	1
9Z 5330-00-301-7807	Gasket	1
1H 5330-00-444-3846	Gasket	1
9Z 5330-00-918-9500	Packing	1
9Z 5120-00-081-6727	Wrench	1
1H 0099-LL-HD2-D645	Wrench	1
9Z 5330-00-467-0417	Ring	1
9C 4820-00-905-0110	Disc	3
9Z 5330-00-843-9726	Retainer	8
9Z 5330-00-835-7712	Retainer	2
9Z 5330-00-176-9719	Packing	22
9Z 5330-00-542-1329	Packing	24
9Z 5330-00-531-6416	Packing	6
9Z 5330-00-834-6676	Retainer	12
1H 0099-LL-HD2-D766	Bladder assy	1
1H 0099-LL-HD2-D767	Valve core	1
1H 0099-LL-HD2-V768	Pkg prefmd	1
1H 0099-LL-HD2-0769	Spring	1
9N 5910-00-028-4155	Capacitor	1
9Z 6350-00-957-4190	Lock	1
9N 5961-00-106-6991	Diode	6
9N 5961-00-018-9194	Diode	1
9N 5961-00-462-7165	Diode	1
9N 5961-00-018-9196	Diode	1
1H 5180-00-087-7107	Tool	1
1H 0099-LL-HD2-D828	Packing	1
1H 0099-LL-HD2-D830	Disc assy	1
1H 0099-LL-HD2-D829	Packing	1
1H 4820-LL-HD2-D831	Packing	1
1H 4820-LL-HD2-D906	Valve	1
9Z 5340-00-547-1127	Spring	4
9N 5945-00-773-2784	Contact	4
9N 5945-00-773-2783	Contact	4
9N 6110-00-696-4981	Contact	4
9N 6210-00-423-7860	Light	1
9N 6210-00-423-7852	Light	1
9N 6210-LL-HD2-D905	Light	1

ATTACHMENT "B"

STANDARD FORM 35, JULY 1963 GS: FPM SERVICES ADMINISTRATION REG. PROC. REG. 141 CDS 1-1& 151		AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		PAGE 1 OF 3	
1. AMENDMENT/MODIFICATION NO. P00037		2. EFFECTIVE DATE Attached		3. SOLICITATION/PURCHASE REQUEST NO.	
4. ISSUED BY CODE N00024 Chief of Naval Material (MAT 00X) Department of the Navy Washington, D.C. 20360		5. ADMINISTERED BY (If other than block 3)		6. PROJECT NO. (If applicable) CODE N62793	
7. CONTRACTOR NAME AND ADDRESS CODE H2689 FACILITY CODE Newport News Shipbuilding and Dry Dock Company 4101 Washington Avenue Newport News, Virginia 23607		8. AMENDMENT OF SOLICITATION NO. DATED _____ (See block 9) MODIFICATION OF CONTRACT/ORDER NO. N00024-70-C-0252 DATED 7010125 (See block 11)			
9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS <input type="checkbox"/> The above numbered solicitation is amended as set forth in block 12. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods: (a) By signing and returning _____ copies of this amendment; (b) by acknowledging receipt of this amendment on each copy of the offer submitted; or (c) by separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
10. ACCOUNTING AND APPROPRIATION DATA (If required)					
11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS (a) <input type="checkbox"/> This Change Order is issued pursuant to _____ The Changes set forth in block 12 are made to the above numbered contract/order. (b) <input type="checkbox"/> The above numbered contract/order is modified to reflect administrative changes (such as changes in paying office, appropriation code, etc.) set forth in block 12. (c) <input type="checkbox"/> This Supplemental Agreement is entered into pursuant to authority of provisions of the contract and P.L. 85-804 It modifies the above numbered contract as set forth in block 12.					
12. DESCRIPTION OF AMENDMENT/MODIFICATION  See attached.					
Except as provided herein, all terms and conditions of the Document referenced in block 8, as hereinafter changed, remain unchanged and in full force and effect.					
13. <input type="checkbox"/> CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT <input type="checkbox"/> CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN _____ COPIES TO ISSUING OFFICE					
14. NAME OF CONTRACTOR/OFFEROR BY <i>C. E. DARD</i> (Signature of person authorized to sign)		17. UNITED STATES OF AMERICA BY <i>F. P. Manganaro</i> (Signature of Contracting Officer)			
15. NAME AND TITLE OF SIGNER (Type or print) C. E. DARD Executive Vice President Newport News Shipbuilding		16. DATE SIGNED 5 OCT 1978		18. NAME OF CONTRACTING OFFICE (Type or print) F. P. MANGANARO, RADM, USN Chairman, Navy Claims Settlement Board	
19. DATE SIGNED 5 OCT					

831607



Description of Modification

Applicable Ships: CGN 38, CGN 39, and CGN 40

WHEREAS, the parties consider all work completed under this contract, except as otherwise specifically agreed below, and the vessels constructed hereunder have been delivered to the Government; and

WHEREAS, the Contractor has submitted claims and requests for equitable adjustment in the contract price pursuant to various provisions of this contract and the Contracting Officer, upon analysis of the said claims and requests for equitable adjustment, has determined them to be meritorious in certain respects; and

WHEREAS, the parties have agreed that the Contract Delivery Date of CGN 38, CGN 39, and CGN 40, shall be the actual delivery date without allocation of responsibility; and

WHEREAS the parties have agreed to the resolution of other outstanding issues in addition to the settlement of the requests for equitable adjustment; and

WHEREAS, as a part of this settlement, the Contractor has agreed to withdraw with prejudice its appeal under ASBCA No. 22186 which relates to a disputed item under this contract; and

WHEREAS, the Government has agreed to adjust the pricing structure and delivery dates of the contract and in exchange for these and other agreements contained herein the Contractor has agreed to give a release as set forth in paragraph 9 below, subject to the reservations set forth in paragraph 10 below; and

WHEREAS, differences exist between the parties as to the computation of escalation; the Contractor nevertheless agrees that the Adjustments to Compensation in this modification include any and all escalation (including special escalation) to which he is entitled by reason of the adjustments contained in this modification; and

WHEREAS, differences exist between the parties as to: (1) computation, allowance and allocation to the Contractor of General and Administrative costs of Tenneco Inc. and Tenneco Corporation; and (2) computation, allowance and allocation of pension costs of the Contractor including the amount contributed to the TENNECO Annuity Plan, the premiums paid to Tennessee Life Insurance for reversionary benefits and the allocation of identified actuarial gains and losses directly to the Contractor; and the parties intend that the total final

negotiated cost of this contract as hereinafter established includes any and all consideration for (1) and (2) above with respect to this contract; and

WHEREAS the disputed matters referenced in the immediately preceding paragraph have been resolved under this contract and all other contracts between the parties by agreement that Home Office Expense for the year 1972 and forward shall be in accordance with CAS 403 and shall be allowed as heretofore approved by DCAA for the years prior to 1972; the Contractor's appeal to the Armed Services Board of Contract Appeals docketed as No. 21625 shall be withdrawn with prejudice; and the Pension Costs referred to in the immediately preceding paragraph which was previously included in provisional disallowances by DCAA, suspended, or disapproved shall be allowed for Contract N00024-67-C-0325 and disallowed for all other contracts between the parties; and

WHEREAS, differences exist between the parties as to the allowability of State tax accruals on this and other contracts; the parties intend that accrued amounts now suspended or disapproved by DCAA will be allowable for this contract to the extent that such amounts will be payable for the year in which this modification becomes effective, and the total final negotiated costs of this contract as hereinafter established include any and all consideration for State tax accruals; and the parties intend that this issue shall be resolved for all other contracts using the same principles, i.e., state taxes accrued for payment in a current year are allowable if payable by the contractor in the following year by or at the time the tax return is filed for the current year; and

WHEREAS, the Assistant Secretary of the Navy, by Memorandum of Decision dated October 5, 1978, has determined that, as part of this agreement, it will facilitate the national defense to invoke P.L. 85-804 to modify this contract by including \$2,500,000 as part of the "Adjustments to Compensation" in paragraph 5 below; and

WHEREAS, pursuant to Modification A02425 the Contractor has received a provisional increase in contract price in the amount of \$2,646,972 for reasons identified in that modification; and

WHEREAS, the Government has asserted claims for non-correction of deficiencies and/or noncompletion of contract work; and the parties desire to fully and finally settle said claims as part of the price adjustment established in this modification; and

WHEREAS, the Government has asserted claims for correction of Contractor-responsible deficiencies arising during the guaranty periods of the vessels and the parties desire to fully and finally settle said claims as part of the price adjustment established in this modification; and

WHEREAS, the parties have agreed on an adjustment in the contract price by reason of the foregoing matters and in accordance with the provisions of Article 15, Incentive Price Revision (Firm Target), the total final negotiated cost, the adjustment for profit and the final contract price have been established and determined, all of the foregoing as herein-after set forth; and

WHEREAS, the parties have agreed to the full and final settlement hereinafter described;

NOW, THEREFORE, the parties hereto agree:

1. Article 3, Delivery of Completed Vessels, is hereby modified as follow:

<u>SHIP</u>	<u>DATE</u>
CGN 38	27 August 1976
CGN 39	26 July 1977
CGN 40	14 July 1978

2. The following are hereby fully and finally settled:

(a) The Contractor's Requests for Equitable Adjustment dated 18 July 1973, as amended and 8 August 1975, as amended.

(b) All (1) changes, (2) HMRS, (3) FMRs, (4) letters of direction, and (5) requests for proposals under this contract.

(c) All claims of the Contractor under this contract for compensation under Clause 36, Federal, State, and Local Taxes. By reason of the adjustment to compensation made and set forth in paragraph 5.a.(2) of this Modification, the amount of the interim payment (\$2,646,972) effected by Modification A02425 is reduced to zero.

(d) Any and all liabilities which are remised, released and discharged under paragraph 9 below subject to the reservations set forth in paragraph 10 below.

(e) Any claims of the Contractor under this contract relating to (1) computation, allowance and allocation to the Contractor of General and Administrative costs of Tenneco Inc.

and Tenneco Corporation; and (2) computation, allowance and allocation of pension costs of the Contractor including the amount contributed to the TENNECO Annuity Plan, the premiums paid to Tennessee Life Insurance for reversionary benefits and the allocation of identified actuarial gains and losses directly to the Contractor.

(f) Any and all of the following liabilities of the Contractor to the Government, express or implied, whether known or unknown, from which the Government hereby releases and forever discharges the Contractor, subject to the reservations in paragraph 10 below.

(1) Under Clause 7, Inspection, Clause 6, Guaranty Period, and other provisions of this contract for non-correction of deficiencies and noncompletion of contract work; and

(2) For equitable reduction of the contract price of this contract, for reimbursement of Government costs under this contract, for disallowance of Contractor costs under this contract, or for money damages arising from the performance of work of this contract; all of the foregoing based upon acts or omissions (including negligence) of the Contractor under this contract, which such acts or omissions occurred prior to the effective date of this modification.

3. Not used.

4. Under the authority of the Act of August 28, 1958, as amended, (Public Law 85-804); 72 Stat. 972, as amended by 87 Stat. 605 (1973); 50 U.S.C. 1431-1435, as amended, and Executive Order 10789 of 14 November 1958 (23 Fed. Reg. 8897) as amended by Executive Order 11051, dated 27 September 1962, Executive Order 11382 of 28 November 1967, and Executive Order 11610 of July 22, 1971, and other applicable statute law and regulation, and in order to facilitate the national defense and in consideration of the mutual covenants of the parties, it is agreed that \$2,500,000 be included as part of the "Adjustments to Compensation" in paragraph 5, and such amount is included. The following modifications are made to the Contract:

(a) Clause 26 of the General Provisions entitled "Examination of Records" is deleted in its entirety and the ASPR 7-104.15 Clause entitled "Examination of Records by Comptroller General (1975 JUN)" is substituted therefor.

(b) Clause 45 of the General Provisions entitled "Equal Opportunity" is deleted in its entirety and the ASPR 7-103.18(a) Clause entitled "Equal Opportunity (1976 JUL)" is substituted therefor.

5. (a) The following adjustments are made:

(1) Equitable Adjustment in Contract Price:

This adjustment is made in base month dollars:

Target Cost	\$ 10,449,000	Increase
Target Profit	\$ 1,045,000	Increase
Target Price	\$ 11,494,000	Increase
Ceiling Price	\$ 13,897,000	Increase

(2) Adjustments to Compensation: These are adjustments not reflected in (1) above which are being made separately from the adjustments in (1) above so as not to affect the Contractor's profit or loss otherwise determined under Article 5, Incentive Price Revision (Firm Target). The Contractor agrees that these adjustments include any and all escalation to which he is entitled by reason of the adjustments contained in this modification:

\$ 20,335,569 Increase

(b) By reason of all adjustments to date, including the above adjustments, the revised contract pricing structure is:

Target Cost	\$ 250,133,591
Target Profit	\$ 31,556,419
Target Price	\$ 281,690,010
Ceiling Price	\$ 330,407,985

(c) The Total Final Negotiated Cost of performing this contract is hereby established pursuant to Article 5, Incentive Price Revision (Firm Target), as

\$ 320,288,794

(d) Pursuant to Article 5, Incentive Price Revision (Firm Target), the "Adjustment for Profit" is established as follows:

Target Cost	\$ 250,133,591
Total Final Negotiated Cost	\$ 320,288,794

Underrun(Overrun)	\$ ( 70,155,203)
Target Profit	\$ 31,556,419
Adjustment to Target Profit Based on Article 5	\$ ( 21,437,228)
Adjustment for Profit	\$ 10,119,191

(e) Pursuant to Article 5, Incentive Price Revision (Firm Target), the "Total Final Price" is established as follows:

Total Final Negotiated Cost	\$ 320,288,794
Adjustment for Profit	\$ 10,119,191
Adjustments to Compensation in Article 4, Compensation (includ- ing adjustments pur- suant to Clause 36, Federal, State and Local Taxes)	\$ 89,825,352
Total Final Price	\$ 420,233,337

6. Upon execution of this modification, the parties will enter into a stipulation whereby the appeals designated as ASBCA Nos. 21625 and 22186 will be dismissed with prejudice, subject to reinstatement only in the event that all payments required by this modification are not made to the Contractor.

7. Notwithstanding anything else to the contrary in this contract, there shall be no contract withholdings or retainages by the Government of any kind.

8. Notwithstanding anything else in this modification, the rights of the parties regarding CVN 70 shall be covered exclusively by the definitized contract to be executed.

9. Release

- a. As used in Paragraph 9.

(1) "Events" refer to any other contract modifications, any Government breach, any Government tort, any change orders, any stop work orders, any suspensions of work, any Government actions or omissions pertaining to Government property or information, and any other occurrences, actions or omissions.

(2) "Covered Events" refers to events occurring before the date set forth in Block 19 of SF 30 (page 1 of this modification) whether formal or constructive, and whether known or unknown to either or both of the parties as of the date set forth in Block 19 of SF 30 (page 1 of this modification), all of which events arise out of, under, or are in any manner connected with:

(i) this contract; or

(ii) any other Government contract (with this or any other Contractor) or contract between the Contractor and any third party.

(3) "CGN 38/39/40 Events" refers to events occurring before the date set forth in Block 19 of SF 30 (page 1 of this modification) whether formal or constructive, and whether known or unknown to either or both of the parties as of the date set forth in Block 19 of SF 30 (page 1 of this modification), but only to the extent such events both (i) arise out of or under this contract, and (ii) impact other contracts solely by reason of their impact on this contract.

b. In consideration of the provisions of this modification, the Contractor, for itself, its successors, assigns, vendors, suppliers and subcontractors, hereby remises, releases and forever discharges the Government, its officers, agents, and employees from (i) any and all entitlement of the Contractor to equitable adjustment of the contract price and delivery schedule of this, and only this, contract by reason of Covered Events, (ii) any and all liabilities to the Contractor for money damages and/or other relief for the impact of Covered Events upon this, and only this, contract, (iii) any and all entitlement of the Contractor to equitable adjustment of the contract price and delivery schedules of any other Government contract or contract between the Contractor and any third party by reason of CGN 38/39/40 Events, and (iv) any and all liabilities to the Contractor for money damages and/or other relief for the impact of CGN 38/39/40 Events upon any other Government contract or contract between the Contractor and any third party.

c. (1) The Contractor hereby confirms and acknowledges that in agreeing to the terms of this modification, it has considered and made full allowance for any and all costs under, and other impacts upon (i) this contract by reason of Covered Events and (ii) any other contract with the Government and with any third party by reason of CGN 38/39/40 Events; whether or not such costs and other impacts are known or unknown or foreseeable or unforeseeable as of the date of this modification set forth in Block 19 of SF 30 (page 1 of this modification), whether or not such costs and other impacts have been discussed with, or for any reason reserved for future discussion with the Government, or have been made the basis for other assertion of claims or requests for equitable adjustment and whether or not such costs or other impacts were, or are, incurred and sustained, respectively, before or after the date set forth in Block 19 of SF 30 (page 1 of this modification).

(2) The term "costs" as used in subparagraph (1) immediately above include, but are not limited to:

- (i) direct labor and material costs ("hardcore"),
- (ii) delays,
- (iii) disruptions, dislocations, acceleration, and inefficiencies in performance,
- (iv) interest costs and any other consideration for financing,
- (v) claim preparation costs, requests for equitable adjustment preparation costs, and
- (vi) overhead costs.

10. Notwithstanding any other provision of this modification, the following rights are hereby reserved, it being expressly agreed that the parties do not thereby acknowledge liability therefor:

(a) All rights and entitlement which the Government may have against the Contractor founded upon P.L. 87-653 to the extent that Certificates of Current Cost and Pricing Data have been provided in connection with this modification; and 31 U.S.C. 231; 18 U.S.C. 286; 18 U.S.C. 287; and 18 U.S.C. 1001.

(b) All rights and obligations of the parties relating to the CGN 41, except that the release in paragraph



9 above includes all costs, as defined in paragraph 9c(2), incurred upon the CGN 38, 39, and 40 resulting from Events occurring on the CGN 41.

(c) All rights of the Contractor under the following provisions of the contract:

- (i) "Insurance - Property Loss or Damage - Liability to Third Persons".
- (ii) "Additional Insurance Provisions."
- (iii) "Nuclear Risk - Indemnification Under Public Law 85-804."

(d) All rights and liabilities of the parties arising under the contract articles, if any, or otherwise which relate to reproduction rights, patent infringements, inventions, applications for patent and patents, including rights to assignments, invention reports, and licenses, and in covenants of indemnity against patent risks.

(e) All rights and liabilities of the parties with respect to the future care and disposition by the Contractor of Government property remaining in his custody.

(f) All rights the Contractor may have to royalty payments under the Contract provision entitled "Value Engineering Incentive."

(g) All rights and obligations of the parties relating to contractor-acquired material not consumed in the course of contract performance as specifically set forth below:

(i) Material Made Obsolete or Excess As A Result of Contract Changes

a. Material made obsolete or excess as a result of contract changes has been identified in change pricing proposals submitted to the Government. The Contractor shall provide to the Government any such material which has been so identified but not disposed of pursuant to instructions from the Government; provided if any such material is not available, the Contractor may substitute equivalent material or pay the original purchase price of the material to the Government.

b. The Government shall provide disposition instructions for the material described in subparagraph a. above, and the Contractor shall dispose of such material in accordance with such instructions. The Contractor shall be reimbursed by the Government for the cost plus a reasonable profit of such disposition.

(ii) Other Surplus Material

a. The Contractor shall inventory Contractor-acquired material in his possession which has not been incorporated into or utilized for ship construction and provide a copy of such inventory to the Government.

b. The Government shall provide disposition instructions for the material listed in such inventory, and the Contractor shall dispose of such material in accordance with such instructions. The Contractor shall be reimbursed by the Government for the cost-plus a reasonable profit of such disposition.

(h) With respect to CGN 38, CGN 39, and CGN 40, all rights of the parties pertaining to undelivered software items specifically identified in Attachment "A", it being agreed that the Contractor will use its best reasonable efforts to provide the same, provided that if notwithstanding such efforts the Contractor should fail to do so, the maximum obligation of the Company shall not exceed a value of \$300 for CGN 38, \$2,000 for CGN 39, and \$200 for CGN 40.

(i) With respect to CGN 38, CGN 39, and CGN 40, all rights of the parties pertaining to undelivered materials specifically identified in Attachment "B", it being agreed that the Contractor will use its best reasonable efforts to provide the same, provided that if notwithstanding such efforts the Contractor should fail to do so, the maximum obligation of the Company shall not exceed a value of \$10,000 for CGN 38, \$17,500 for CGN 39, and \$22,250 for CGN 40.

(j) With respect to CGN 40, all rights and obligations of the parties pertaining to the guarantee deficiencies unknown to NAVSEA, or the Supervisor or his staff, as of September 5, 1978; provided the Contractor shall accumulate the cost of any correction of such guarantee deficiencies under a separate cost account, and the parties will at the time of completion of all such corrections: (A) increase the total final negotiated cost of this contract by an amount equal to the cost of such corrections, and (B) increase escalation amounts and payments under this contract accordingly. The Contractor's liability for correction of guarantee deficiencies shall not exceed \$1,698,666.

(k) All rights and obligations of the parties relating to seal weld cutting machines for the Decay Heat Removal System.

(l) All rights and obligations of the parties relating to the items listed in Attachment "C", provided the Contractor shall accumulate costs incurred on account of these items, and if such costs are determined to not have been included in the total estimated contract cost set forth in the DD633-6 form provided in connection with this modification, the parties will, at the time of completion, (a) increase the total final negotiated cost of this contract by an amount equal to such costs, and (b) increase escalation amounts and payments under this contract accordingly.

11. Promptly upon effectiveness of this modification and the submission of proper invoices, the Government shall make the payments required under the terms of this contract as modified herein. If such payment is not made with 60 days of the effectiveness of this modification, the Contractor shall have the right to declare this modification to be of no force and effect and the parties shall be restored to their respective rights and remedies existing prior to the execution of this modification.

12. (a) The parties hereto agree that this modification shall become effective only upon receipt by the Contractor of written notice by the Contracting Officer that appropriations have been obligated to this contract in an amount sufficient to fund fully the Government's obligations under this contract, including the obligations provided for in this modification. In any event, should such notice not be given by March 31, 1979, neither party shall be bound by the terms contained herein.

(b) Modification P00037 to Contract N00024-70-C-0252, Modification P00014 to Contract N00024-69-C-0307, Modification P00036 to Contract N00024-70-C-0269, Modification P00026 to Contract N00024-71-C-0270, Modification P00067

to Contract N00024-67-C-0325, and Modification P00028 to Contract N00024-68-C-0355 reflect various elements of an overall settlement of a number of Navy and Contractor issues, and, as such, are inseparably related to each other. It is specifically agreed that the effectiveness of each individual modification is conditioned upon the execution and effectiveness of all of the modifications identified above.

13. The parties agree that notwithstanding the contingent nature of this modification as described in paragraph 12 above:

(a) The Contractor will proceed to correct the INSURV and guarantee items identified herein or by reference as Contractor responsible items. If the modification does not become effective the Contractor's actions in correcting those INSURV and guarantee items will not be considered as prejudicing its rights and obligations regarding later determinations of the responsibility for correction of those items. In no event will the Contractor be deemed a volunteer by its actions in correcting those deficiencies pursuant to this agreement, rather, the Contractor will be deemed to have performed those tasks at the direction of the Contracting Officer. In addition, the allocation of responsibility for INSURV and guarantee items shall likewise not be binding on the parties and shall have no effect on later determinations of responsibility for these items. Furthermore, if this modification does not become effective, the Government's actions in correcting INSURV and guarantee deficiencies which are later determined to have been Contractor responsible shall not adversely affect the Government's right to price reduction for non-correction of these deficiencies by the Contractor.

(b) The Government will promptly release all contract withholdings and retainages. If the modification does not become effective the payments made shall be considered provisional in nature and shall be subject to repayment, if appropriate, to the Government on final settlement of the contract.

CDRL ITEMS TO BE DELIVEREDCGN 38

A001DJ	Tech. Manuals	See Listing Attached
A001EW	Shock Test Report	See Listing Attached
A001EY	Dynamic Shock Analysis	See Listing Attached

CGN 39

A001AY	M.F. Aperture Cards (R.P.)	} Related Due 90 Days After PSA (October 1978)
A001EK	SDI	
A001BL	M.F. Aperture Cards (Non R.P.)	} Related
A001BM	Tab. Listing of A001AY and A001BL	
A001BN	Tab. Cards for A001AY and A001BL	} Related
A001DJ	Tech. Manuals	See Listing Attached
A001DL	Index of Tech. Pub- lications	Submitted for Approval 1/2/78
A001EW	Shock Test Report	See Listing Attached
A001EY	Dynamic Shock Analysis	See Listing Attached

CGN 40

A001AY	M.F. Aperture Cards (R.P.)	} Related
A001DJ	Selected Record Drawings	
A001EK	SDI	} Due 30 Days Prior to End of Guaranty (December 1978)
A001BL	M.F. Aperture Cards (Non R.P.)	
A001BM	Tab. Listing of A001AY and A001BL	} Related
A001BN	Tab. Cards for A001AY and A001BL	} Related
A001BQ	Booklet of General Drawings	} Related
A001BR	Antenna Photographs	Rejected - To be Furnished after PSA
A001DJ	Tech. Manuals	See Listing Attached
A001DL	Index of Tech. Publications	Submitted for Approval 3/17/78
A001EW	Shock Test Report	See Listing Attached
A001EY	Dynamic Shock Analysis	See Listing Attached

Attachment A

## NON-NUCLEAR TECHNICAL MANUALS TO BE DELIVERED

CGN 38, 39, &amp; 40

<u>NAVSEA NO.</u>	<u>TITLE</u>	<u>STATUS/DATE</u>
1. 0335-094-500A	Tumbler, Laundry 37 x 30 440 Volts A.C. Chg. #1	With Vendor 11/7/77
2. 0905-524-2050	Ship Information Bk., Vol. 2, Part 2 Bk 4	At NPPSO 5/22/78
3. 0947-212-1011	Pump, Fire (Turbine Driven)	At SOS for Printing Appvl. 6/23/78
4. 0947-212-2010	Pump, Feed Wtr Chemical Injection	Has approval for Preliminary Dist. But not <u>final</u> dist..
5. 0947-160-7010	Pump, Distiller, Brine	With Vendor 6/23/78
6. 0947-160-8010	Pump, Distiller, Condensate	"
7. 0947-160-9010	Pump, Distiller Distillant	"
8. 0947-213-2010	Pump, Automatic Sump Drainage 1 EVN	With Vendor 6/30/77
9. 0950-011-301B	Distilling Unit, Flash Type Wtr. 18,000 GPD MDL. S750FLZ Chg. #1	At SOS for Print Appvl. 6/5/78
10. 0948-061-801B	Valves Temperature, Regulating	At SOS for Tech. Appvl. 4/28/77
11. 0948-118-4010	Valve, Butterfly Motor Operated for Fire Main System	Resubmitted for Appvl. 9/20/78
12. 0978-040-8010	Ammunition Elevators & Mag Conveyor Sys. Model M 20104 Forward & Aft	Appvd. for Printing 9/5/78
13. 0989-061-4000	Secondary Shield Bulkhead Electrical Shield Penetrators	At NPPSO 7/20/78
14. 0989-041-1001	Control Cabinet Pressurizer	At NPPSO 4/12/78
15. 0982-006-7010	Davits & Winches 26 Ft. Motor Whaleboat	With Vendor
16. 0982-006-8010	Davits & Winches 26 Ft. Personnel Boat	"
17. 0982-006-9010	Davits & Winches 26 Ft. Utility Boat	"
18. 0989-055-3000	Control Panel & Remote Plant Engineered Safeguard Control Panel, Mach Space	Appvd. for Printing 8/21/78

CGN39 (ONLY)

<u>NAVSEA NO.</u>	<u>TITLE</u>	<u>STATUS/DATE</u>
1. 0905-528-2020	SIB Vol. 2 Machinery Plant	At NPPSO - 6/6/78
2. 0905-524-2030	SIB Vol. 2, Part 2, Bk. 2	At NPPSO - 5/15/78

CGN40 (ONLY)

1. 0905-524-3020	SIB Vol. 2 Machinery Plant	At SOS for Tech approval - 5/31/78
2. 0905-524-3030	SIB Vol. 2, Part 2, Bk. 2 Machinery Plant	At SOS for Tech approval - 5/31/78
3. 0905-524-3060	SIB Vol. 2, Part 2, Bk. 5	At SOS for Tech approval - 6/29/78
4. 0905-524-3070	SIB Vol. 3, Part 1	At NPPSO - 7/20/78
5. 0905-524-3080	SIB Vol. 3, Part 2	At NPPSO - 7/20/78
6. 0905-524-3100	SIB Vol. 5, Part 1	At NPPSO - 8/15/78
7. 0905-524-3110	SIB Vol. 5, Part 2	At NPPSO - 8/15/78

SHOCK REPORTS TO BE DELIVERED

1. Helo Hatch Cover Platform Lock Bars and Hatch Cover Assembly - P. O. 601-2065-M2 - Dynamic Analysis Due from Vendor.
2. Ammo Elevator Spring Bumper - P. O. 601H-2153-M1 - Post-Shock Examination Report Due from Vendor.
3. Rotometers - Bronze - P. O. 601H-6454-K24 - Failed Post Shock Examination. Redesigned and scheduled for retest.

TEST DATA TO BE DELIVERED

1. Reactor plant test procedure books - estimated delivery October 16, 1978.



Onboard Repair Parts To Be Delivered

<u>Federal Stock No.</u>	<u>Description</u>	<u>Hull</u>	<u>Quantity</u>	<u>Last Known Price to Navy</u>
3110-00-009-5738	Bearing	607 606	1 each 1 each	71.69 each
5330-00-054-6894	Gasket	607	2 each	0.45 each
5330-00-056-4232	Gasket	607	1 each	52.97 each
5999-00-131-9689	Contacts Z	607	3 each	78.11 each
2825-00-139-5563	Lining	607	1 each	5440.00 each
2825-00-139-5621	Lining	607	1 each	5930.00 each
8120-00-176-1596	Cylinder	607	5 each	55.64 each
5330-00-197-9607	Gasket	607	8 each	0.63 each
4820-00-262-8361	Valve	607	1 assy.	295.36 each
6830-00-290-4377	Dichcorod	607	250 lbs.	0.49 each
5925-00-300-4492	Circuit Breaker	607	1 each	127.00 each
1820-00-317-3365	Thermometer	607	1 assy.	2.70 each
4320-00-355-7655	Sleeve	607	1 each	15.60 each
5330-00-376-7753	Gasket	607	1 each	5.24 each
5330-00-377-2188	Gasket	607	5 each	3.25 each
5925-00-387-2414	Circuit Breaker	607 601	1 each 1 each	26.75 each
5330-00-397-4484	Gasket	607	1 each	0.54 each
6330-00-406-9021	Filter K1	607	1 each	377.80 each
5685-00-422-1421	Gage	607	1 each	1171.65 each
5685-00-422-1422	Gage	607	1 each	282.48 each
3120-00-431-9324	Bearing	607	2 sets	433.68 each
5330-00-467-0224	Gasket	601	1 each	5.35 each
5999-00-467-9632	Circuit Card	607	1 each	535.00 each
5999-00-467-9633	Circuit Card	607	1 each	370.00 each
5999-00-467-9646	Circuit Card	607	1 each	450.00 each

Cont.

<u>Federal Stock No.</u>	<u>Description</u>	<u>Null</u>	<u>Quantity</u>	<u>Last Known Price to Navy</u>
5999-00-467-9648	Circuit Card	607	1 each	403.00 each
5330-00-480-3869	Gasket	607	1 each	87.67 each
5330-00-485-7636	Gasket	607	1 each	2.70 each
5330-00-492-2527	Gasket	607	1 each	2.14 each
5999-00-500-5992	Contacts	607	2 each	2.35 each
5330-00-530-2000	Gasket	607	2 each	1.96 each
5330-00-579-3158	Gasket	607	2 each	0.03 each
5330-00-579-7912	Gasket	607	1 each	0.28 each
5330-00-627-5321	Seal	607	1 each	100.00 each
5961-724-2092	Transistor	607	1 each	1.30 each
5330-00-727-1882	Gasket	607 606	1 each 1 each	0.16 each
<del>5999-00-759-5104</del>	<del>Contact-E</del>	<del>607</del>	<del>1 each</del>	<del>6.64 each</del>
5950-00-764-4030	Transformer	607	1 each	44.51 each
3120-00-775-8059	Bearing	607	1 assy.	846.00 each
2825-00-786-4239	Valve	607	1 assy.	816.00 each
5330-00-882-8872	Gasket	607	2 each	1.07 each
5990-00-928-5593	Synchro. C	607	1 each	120.91 each
5330-01-008-6853	Gasket	607	2 each	3.69 each
5330-01-010-9658	Seal	607	1 each	42.60 each
5330-01-010-9659	Seal	607	1 each	21.40 each
5330-01-012-2716	Gasket	607	1 each	32.10 each
5310-01-012-3709	Washer	607	1 each	1.07 each
5330-01-012-3831	Seal	607	1 each	11.40 each
4820-01-031-9247	Valve Disc	607	1 each	283.20 each
5330-01-035-4231	Gasket	607	1 each	18.00 each

Cont.

<u>Federal Stock No.</u>	<u>Description</u>	<u>Bull</u>	<u>Quantity</u>	<u>Last Known Price to Navy</u>
5977-01-043-5536	Brush	607	16 each	50.00 each
5977-01-043-5537	Brush	607	32 each	50.00 each
8001224563083 (Part) (No.)	Release Device Assy	607	8 each	178.14 each
		606	8 each	
ACN 0000-LL-CPO-1468	Bearing	607	1 each	52.25 each
ACN 0099-LL-HDD-D820	Pressure Ring	607	2 each	143.00 each
ACN 0099-LL-HDD-D877	Pressure Ring	607	1 each	143.00 each
ACN 0099-LL-HDD-D878	Pressure Ring	607	1 each	143.00 each
ACN <del>0099-LL-HDD-D879</del>	<del>Pressure Ring</del>	<del>607</del>	<del>1 each</del>	<del>143.00 each</del>
ACN 0099-LL-HDD-D881	Pressure Ring	607	2 each	143.00 each
ACN 0099-LL-HDD-D882	Pressure Ring	607	1 each	143.00 each
ACN 0099-LL-HDD-D883	Pressure Ring	607	1 each	143.00 each
ACN 2825-LL-HDD-T722	Turbine Piston Ring	607	1 each	61.00 each
5999-00-725-5838	Contact E.	601	2 each	0.52 each
5930-00-990-7150	Switch	601	1 each	0.31 each
2825-00-859-6356	Pin Set	601	2 sets	667.00 per set
5920-00-924-3937	Fuse	601	1 each	0.60 each
5330-00-106-6347	Gasket	606	1 each	1.85 each
5945-00-422-8489	Guide Spring	606	3 each	0.08 each
5305-00-823-5687	Set Screw	606	1 each	16.50 each

ont.

<u>Federal Stock No.</u>	<u>Description</u>	<u>Hull</u>	<u>Quantity</u>	<u>Last Known Price to Navy</u>
825-00-859-6356	Pin Set	606	2 sets	667.00 per set
530-00-169-5593	Cylinder Kit	607 606	1 each 1 each	40.00 each
820-00-175-9461	Valve	607 606	1 each 1 each	39.00 each
930-00-539-4457	Switch	607 606	1 each 1 each	123.00 each
820-00-721-9679	Valve	607 606	5 each 5 each	48.00 each
905-00-755-5098	Resistor	607	1 each	0.96 each
930-00-823-2054	Switch	607 606	1 each 1 each	32.00 each
Z1D-00-875-2797	Lens	607 606	1 each 1 each	4.00 each
<sup>FN</sup> 999-LL-HDE-R297	Bearing	607 606	2 each 2 each	48.00 each
<sup>FN</sup> 999-LL-HDE-R298	Seal	607 606	1 each 1 each	18.00 each
825-00-872-4864	Gage	607	1 each	139.95 each
<sup>FN</sup> 999-LL-HDE-R296	Wrench	607 606	1 each 1 each	120.00 each
140-00-012-5588	Lamp	606	9 each	0.09 each
130-00-069-2021	Packing	606	1 set	1.64 each
905-00-102-1064	Resistor	606	1 each	2.78 each
10-00-103-9769	Bearing	606	1 each	41.58 each
905-00-141-1429	Resistor	606	1 each	7.74 each
10-00-171-8919	Washer	606	1 each	2.25 each
130-00-265-1087	Packing	606	1 each	0.09 each
<sup>FN</sup> 999-LL-HDE-R295	Spring	607 606	1 each 1 each	300.00 each

cont.

<u>Federal Stock No.</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Last Known Price to Navy</u>
905-00-279-3381	Resistor	606	1 each	2.35 each
240-00-427-7448	Lamp	606	15 each	0.62 each
110-00-518-6008	Bearing	606	1 each	47.52 each
360-00-759-5553	Spring	606	1 each	1.59 each
110-00-991-0943	Bearing	606	1 each	49.50 each
1330-01-010-9795	Packing	606	1 each	2.14 each
1330-01-018-0696	Seal	606	1 each	2.14 each
1330-01-018-5235	Socket	606	3 each	1.61 each
135252 (Part No.)	Socket	605	1 each	50.00 each
110-00-991-0945	Bearing	601	2 each	115.92 each
1320-01-036-0228	Balance Ring	601	1 each	29.50 each
1099-LL-HDB-V265	Motor	606	1 each	
1330-01-013-5820	Packing	607	2 each	
MRP 568-910-MIL-P-1516	O-Ring	607	4 each	
1428-2	Thermocouple	607	4 each	

EQUIPMENT TO BE DELIVERED

1. Rotometers - Bronze - P. O. 601B-6454-K24 - To be delivered for back fit, Hulls 601, 605 and 607, after shock test.
2. Decay heat seal welding cutting machine, Hull 601, 606 and 607 estimated delivery, \_\_\_\_\_
3. 4-way Control Valves for 601 & 606. Install PSA on 607.

1. As-built drawings - CGN 38/39/40
2. Ships Drawing Index - CGN 39/40
3. Component Technical Manuals:
  - a. 0792-006-8000 - Chain hoists
  - b. 0948-090-5000 - Diverting & Isolating Valves (R/C Ventilation) Sections 6.5, 6.7, & 9.2)
4. Maratta control valves for R/C Vent Isolating Valves - 12 each for CGN 39/40 and related drawings/data.
5. DeSanno Valves on CGN 39
6. Sonar dome, including rubber window (~~guaranty item~~) - CGN 40

*CAS**AMU*

Attachment C

STANDARD FORM 30, JULY 1968 GENERAL SERVICES ADMINISTRATION HQS. WDC. REG. 141 CFR 1-16.101		AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		PAGE 1	OF 5
1. AMENDMENT/COPIATION NO. P00028		2. EFFECTIVE DATE Attached		3. SOLICITATION/PURCHASE REQUEST NO.	
5. ISSUED BY Chief of Naval Material (OOX) Department of the Navy Washington, D. C. 20360		6. ADMINISTERED BY (If other than block 3) Supervisor of Shipbuilding Conversion & Repair, USN Newport News, Virginia 23607		4. PROJECT NO. (If applicable) CODE N62793	
7. CONTRACTOR NAME AND ADDRESS  Newport News Shipbuilding & Dry Dock Co. 4101 Washington Avenue Newport News, Virginia 23607 <small>(Show, city, county, state, and ZIP Code.)</small>		FACILITY CODE		8. AMENDMENT OF SOLICITATION NO. DATED _____ (See block 9)	
				9. MODIFICATION OF CONTRACT/ORDER NO. N00024-68-C-0355 DATED 68JUN13 (See block 11)	
9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS <input type="checkbox"/> The above numbered solicitation is amended as set forth in block 12. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods: * (a) By signing and returning a copy of this amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN ELIGIBILITY OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
10. ACCOUNTING AND APPROPRIATION DATA (If required)					
11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS <input type="checkbox"/> This Change Order is issued pursuant to _____ The Changes set forth in block 12 are made to the above numbered contract/order. <input type="checkbox"/> The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation code, etc.) set forth in block 12. <input checked="" type="checkbox"/> This Supplemental Agreement is entered into pursuant to authority of <u>the provisions of the contract</u> It modifies the above numbered contract as set forth in block 12.					
12. DESCRIPTION OF AMENDMENT/MODIFICATION  See Attached					
Example as provided herein, all terms and conditions of the document referenced in block 9, as hereafter changed, remain unchanged and to full force and effect.					
13. <input type="checkbox"/> CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT <input checked="" type="checkbox"/> CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN <u>3</u> COPIES TO ISSUING OFFICE					
14. NAME OF CONTRACTOR/OFFEROR <u>C. E. Dart</u> <small>(Signature of person authorized to sign)</small>			17. UNITED STATES OF AMERICA <u>F. P. Manganaro</u> <small>(Signature of Contracting Officer)</small>		
15. NAME AND TITLE OF SIGNED (Type or print) C. E. DART Executive Vice President Newport News Shipbuilding		16. DATE SIGNED 5 OCT 1977	18. NAME OF CONTRACTING OFFICE (Type or print) F. P. MANGANARO, RADM, USN Chairman, Navy Claims Settlement Board		19. DATE SIGNED 5 OCT 1977



Description of Modification

Applicable Ships: CGN 36 and CGN 37

WHEREAS, the parties, on 11 February 1977, executed Modification P00027 to this contract, which, with certain exceptions, finally settled this contract; and

WHEREAS, the parties, on this date, agreed, with certain specified exceptions to finally settle contracts N00024-70-C-0252, N00024-67-C-0325, N00024-69-C-0307, N00024-70-C-0269, and N00024-71-C-0270; and

WHEREAS, as part of the consideration for those settlements the parties have agreed to modify the release contained in Modification P00027 to this contract;

NOW, THEREFORE, the parties hereto agree:

1. Paragraph 6 of Modification P00027 is deleted in its entirety and the following is substituted therefor:

"6. Release

a. As used in Paragraph 6,

(1) "Events" refer to any other contract modifications, any Government breach, any Government tort, any change orders, any stop work orders, any suspensions of work, any Government actions or omissions pertaining to Government property or information, and any other occurrences, actions or omissions.

(2) "Covered Events" refers to events occurring before the date set forth in Block 19 of SF 30 (page 1 of this modification) whether formal or constructive, and whether known or unknown to either or both of the parties as of the date set forth in Block 19 of SF 30 (page 1 of this modification), all of which events arise out of, under, or are in any manner connected with:

(i) this contract; or

(ii) any other Government contract (with this or any other Contractor) or contract between the Contractor and any third party.

(3) "CGN 36/37 Events" refers to events occurring before the date set forth in Block 19 of SF 30 (page 1 of this modification), whether formal or constructive, and whether known or unknown to either or both of the parties as of the date set forth in Block 19 of SF 30 (page 1 of this modification), but only to the extent such events both (i) arise out of or under this contract, and (ii) impact other contracts solely by reason of their impact on this contract.

b. In consideration of the provisions of this modification, the Contractor, for itself, its successors, assigns, vendors, suppliers and subcontractors, hereby remises, releases and forever discharges the Government, its officers, agents, and employees from (i) any and all entitlement of the Contractor to equitable adjustment of the contract price and delivery schedule of this, and only this, contract by reason of Covered Events, (ii) any and all liabilities to the Contractor for money damages and/or other relief for the impact of Covered Events, upon this, and only this, contract, (iii) any and all entitlement of the Contractor to equitable adjustment of the contract price and delivery schedules of any other Government contract or contract between the Contractor and any third party by reason of CGN 36/37 events, and (iv) any and all liabilities to the Contractor for money damages and/or other relief for the impact of CGN 36/37 Events upon any other Government contract or contract between the Contractor and any third party.

c. (1) The Contractor hereby confirms and acknowledges that in agreeing to the terms of this modification, it has considered and made full allowance for any and all costs under, and other impacts upon (i) this contract by reason of Covered Events

and (ii) any other contract with the Government and with any third party by reason of CGN 36/37 Events; whether or not such costs and other impacts are known or unknown or foreseeable or unforeseeable as of the date set forth in Block 19 of SF 30 (page 1 of this modification), whether or not such costs and other impacts have been discussed with, or for any reason reserved for future discussion with, the Government, or have been made the basis for other assertion of claims or requests for equitable adjustment and whether or not such costs or other impacts were, or are, incurred and sustained, respectively, before or after the date set forth in Block 19 of SF 30 (page 1 of this modification).

(2) The term "costs" as used in subparagraph (1) immediately above include, but are not limited to:

- (i) direct labor and material costs ("hardcore"),
- (ii) delays,
- (iii) disruptions, dislocations, acceleration, and inefficiencies in performance,
- (iv) interest costs and any other consideration for financing,
- (v) claim preparation costs, requests for equitable adjustment preparation costs, and
- (iv) overhead costs."

2. Paragraph 2(e) of Modification P00027 is deleted in its entirety and the following is substituted therefor:

"(e) Any and all of the following liabilities of the Contractor to the Government, express or implied, whether known or unknown, from which the Government hereby releases and forever discharges the Contractor, subject to the reservations in paragraph 7 below.

(1) Under the "Inspection" clause, the "Guaranty Period" clause and other provisions of this contract for noncorrection of deficiencies and noncompletion of contract work; and

(2) For equitable reduction of contract price of this contract, for reimbursement of Government costs under this contract, for disallowance of Contractor costs under this contract, or for money damages arising from the performance of work of this contract; all of the foregoing based upon acts or omissions (including negligence) of the Contractor under this contract, which such acts or omissions occurred prior to the effective date of this modification.

**Question 12.** Please provide copies of any documents furnished to Newport News by you or your subordinates concerning alleged violations by Newport News of fraud or false claims statutes. Please provide also any correspondence from Newport News officials to yourself or Assistant Secretary Hidalgo concerning the aforementioned allegations.

**Answer.** The relevant correspondence is attached.

LAW OFFICES  
SULLIVAN, BEAUREGARD, CLARKSON, MOSS, BROWN & JOHNSON  
WASHINGTON, D. C. 20036

December 22, 1978

1800 M STREET, N. W.

OF COUNSEL  
JOHN COSGROVE MCBRIDE

JOHN L. SULLIVAN  
HENRY G. BEAUREGARD  
STEPHEN B. CLARKSON  
ROBERT BERRIFFS MOSS  
J. MITCHELL BROWN  
R. TENNEY JOHNSON  
THOMAS J. TOURAY  
ANDREW F. OCMPEY, JR.  
D. WHITNEY THORNTON, II  
  
DONALD A. TOBIN  
SAVERY M. GRADOVILLE  
GERARD J. STIEF  
CARL A. POTTER, III

BY HAND

Mr. Theodore T. Belazis  
Assistant Counsel  
Naval Sea Systems Command  
Department of the Navy  
Washington, D. C. 20362

Re: Freedom of Information Act Request

Dear Mr. Belazis:

This acknowledges the receipt of your December 18, 1978 letter (OOL/TTB Ser 413) apprising me of your progress in processing the Freedom of Information Act requests filed by this firm on behalf of Newport News Shipbuilding and Dry Dock Company on November 24, 1978.

I fully appreciate the administrative difficulties that you may encounter in processing this firm's requests. However, I am concerned from your letter that a response to our requests will be delayed due to your perceived requirement to coordinate with the Department of Justice. To the extent that certain documents which we have requested have been transferred to the Department of Justice and thus are within its custody and control we see no need for coordination between the Navy and the Department of Justice. As you are aware, we have filed with the Department of Justice a separate request for documents which had been transmitted from the Department of the Navy and which relate to the requests for equitable adjustments submitted by Newport News Shipbuilding and Dry Dock Company under Navy contracts. The releasability of documents within the custody and control of the Department of Justice is a matter for that Department's determination.

With respect to documents which are within the scope of our requests to the Navy and which are physically located at an activity of the Department of the Navy, it is our position that the releasability of such documents is a matter which must

be determined by the Navy. In this regard, the Freedom of Information Act imposes a statutory obligation upon the agency, in whose possession and control the requested documents are maintained, to process requests for access to those records. 5 U.S.C. § 552(a)(3), as amended by Public Law 93-502 (1974).

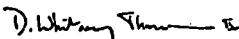
It is recognized in those instances where a document which is requested from one agency was either generated by or generated for another agency that consultation between those agencies may be appropriate. However, this does not negate the fact that the agency who has possession of the documents is required to make the statutory determination as to whether the document is available.

Accordingly, to the extent that the documents requested are within the possession of the Department of Navy and were not specifically generated for or received from the Department of Justice we see no need to delay processing our requests by consultation and coordination between the Department of Navy and the Department of Justice. Indeed, it is our firm position that such coordination is not only unnecessary, it is an abdication of the Department of Navy's statutory responsibility under the Freedom of Information Act.

Furthermore, with respect to documents which may have been generated for or transmitted from the Department of Justice it is our position that any consultation between the Department of Justice and the Department of the Navy should be strictly limited to the narrow question of releasability under the Freedom of Information Act. We feel that due to the current status of the Department of Justice investigation and the Company's October 5 settlement with the Department of the Navy, that any consultation between the Department of Justice and the Department of the Navy concerning the on-going investigation would be highly improper.

It is requested that we be immediately advised if your position is contrary to the position which we have stated in this letter. Your assistance in this matter is greatly appreciated.

Sincerely yours,



D. Whitney Thornton, II



DEPARTMENT OF THE NAVY  
 NAVAL SEA SYSTEMS COMMAND  
 WASHINGTON, D.C. 20382

IN REPLY REFER TO

OOO/TTB  
 Ser 413

DEC 18 1978

Mr. D. Whitney Thornton, II  
 Sullivan, Beauregard, Clarkson, Moss,  
 Brown & Johnson  
 1800 M Street, N.W.  
 Washington, D.C. 20036

Dear Mr. Thornton,

This letter is in response to your Freedom of Information Act requests on behalf of the Newport News Shipbuilding and Dry Dock Company (hereinafter the Company or NNSD) which you directed to officials of the Department of the Navy. Your requests were formulated in three letters, one to the Commander, Naval Sea Systems Command dated November 24, 1978, one to the Navy's Supervisor of Shipbuilding Conversion and Repair at Newport News, Virginia, a field activity of the Naval Sea Systems Command, also dated November 24, 1978, and one to the Honorable W. Graham Claytor, Jr., Secretary of the Navy, dated November 27, 1978. By letter dated November 28, 1978, you withdrew your request for documents described in paragraph seven of Navy Secretary Claytor's request letter. These documents were provided to the Company by separate cover on December 1, 1978.

The three Navy request letters were among a total of seven FOIA request letters sent to the U.S. Department of Justice, the Department of Energy and the Defense Contract Audit Agency, in addition to the Navy Department. All seven such request letters relate to NNSD's Requests for Equitable Adjustment under Navy shipbuilding contracts and to the settlement of claims thereunder.

As you are no doubt aware, the documents which are the subject of your requests are the focal point of a criminal investigation which is being conducted by the United States Department of Justice. That agency is presently in the process of examining evidence to determine whether there has been a violation of law in connection with the Company's Requests for Equitable Adjustment. Notwithstanding this fact, we shall endeavor to process and comply with your requests in a diligent manner.



As a result of the ongoing investigation, we anticipate that it will be found that a sizeable proportion of the documents which you requested are under the custody and control of the U.S. Department of Justice. Due to the delicacy of the matters relating to the ongoing investigation and the need to isolate, examine and preserve evidence for the investigation, we anticipate the need to proceed in close consultation and coordination with the Justice Department in processing your request so as not to interfere with or to prejudice that investigation.

The documents which you have requested are voluminous in the extreme. The number of individual records which need to be reviewed cannot be calculated. It is impossible at this time to determine with any accuracy how many thousands of manhours will be involved to search for and review the documents you have requested. However, it is our intention in the exercise of due diligence to undertake the expeditious processing of your request so that we may make accessible to you releasable documents as they become available from time to time on a continuing basis until the task is finished. We have already commenced the process of locating the files addressed in your requests. The undersigned has discussed with you on the telephone on December 8, 1978 the likelihood of making the first increment of documents available to you on January 9, 1979. It is our intention to use our best efforts to honor that date despite the intervention of the Christmas holidays.

In accordance with your suggestion during our discussion on December 8, at the conclusion of the processing of your request, we will provide you with a denial letter for any documents or portions thereof as to which we interpose an exemption from disclosure. With that, you may avail yourself of your right to appeal the denial. Although, as noted above, it is impossible at this time to provide you with a probable completion date, we shall notify you as soon as we have determined such a date. We enlist your cooperation in the processing of your request for these sensitive documents.

Sincerely,

*Theodore T. Belazis*  
THEODORE T. BELAZIS  
Assistant Counsel  
Naval Sea Systems Command

## Copy to:

Mr. Joe Covington  
Department of Justice  
Criminal Division (Fraud Section)  
P.O. Box 7814  
Ben Franklin Station  
Washington, D.C. 20044

Mr. Elliot Norman  
Assistant United States Attorney  
Eastern District of Virginia  
P.O. Box 1257  
Richmond, Virginia 23210

Mr. Matthew K. McElhaney  
Counsel, Supervisor of Shipbuilding,  
Conversion and Repair, USN  
Newport News, Virginia 23607

Mr. Kirk B. Moberley, Jr.  
Assistant Counsel  
Defense Contract Audit Agency  
Cameron Station, Virginia 22314

Ms. Marilyn Ross  
Department of Energy  
12th & Pennsylvania, N.W.  
Room 6144  
Office of General Counsel  
Washington, D.C. 20461

Mr. J.J. McDonnell (OASN (MRA&L))  
Mrs. Lister (OGC)  
Mrs. Szervo (OGC)  
Ms. Adkins (CAD)  
SEA 08 (Mr. Leighton)  
SEA OOD  
SEA 021



GENERAL COUNSEL OF THE NAVY  
WASHINGTON, D.C. 20350

1 DEC 1978

V. F. Ewell, Jr., Esquire  
Vice President and General Counsel  
Newport News Shipbuilding  
4101 Washington Avenue  
Newport News, Virginia 23607

Dear Mr. Ewell:

This will respond to your letter of November 1, 1978, requesting copies of all communications between Senator Richard S. Schweiker and the Secretary of the Navy concerning allegations of fraud committed by Newport News Shipbuilding.

The correspondence consists of two letters, one, dated October 25, 1978, from Senator Schweiker to the Secretary, and the other, dated November 20, 1978, from the Secretary to Senator Schweiker. A copy of each is enclosed. Because of their bulk, file copies of the enclosures to the Secretary's letter were not retained; we have endeavored to reconstruct the enclosures and have attached what is believed to be a complete and accurate set. As you will note from the cover sheet of each of the three enclosures to the Secretary's letter, the complete volumes from which the enclosures were excerpted are available from the Superintendent of Documents, Government Printing Office.

Sincerely,

Togo P. West, Jr.

Enclosures

WAPRON O. MACHUSON, WASH., CHAIRMAN  
 JOHN C. CEFNER, MISS.  
 ROBERT C. OTIS, W. VA.  
 WILLIAM BROCKING, WYO.  
 DONALD W. JOHNSON, ILL.  
 WALTER F. HOLLINGS, S.C.  
 JOHN BARN, IND.  
 THOMAS F. LAGLETON, MD.  
 LAWTON CHILES, FLA.  
 J. BENNETT JOHNSON, LA.  
 WALTER D. HIDDLESTON, NY.  
 GUYDEN H. BURGESS, N. DAK.  
 PATRICK J. LEAHY, VT.  
 JIM BASSER, TENN.  
 EDWARD DEEGERS, ARIZ.  
 DALE BUMPERS, ARK.

MELTON B. YOUNG, N. DAK.  
 CLIFFORD P. CASE, N.J.  
 EDWARD W. BRODIE, MASS.  
 MARK O. MATFIELD, OREG.  
 TED STEVENS, ALASKA  
 CHARLES MCCLINTOCK, CAL. MD.  
 RICHARD S. SCHWELER, PA.  
 KERRY BELMONT, OHIO  
 LOWELL P. WIGGERS, ILL., CONN.

## United States Senate

COMMITTEE ON APPROPRIATIONS  
 WASHINGTON, D.C. 20510

JAMES H. CALLOWAY  
 CHIEF COUNSEL AND STAFF DIRECTOR

October 25, 1978

The Honorable W. Graham Claytor, Jr.  
 Office of the Secretary  
 Department of the Navy  
 Pentagon Building  
 Washington, D.C. 20350

Dear Mr. Secretary:

Since the April, 1978, announcement that the Navy would overhaul the USS SARATOGA at the Philadelphia Naval Shipyard under the Service Life Extension Program (SLEP), you and I have discussed on several occasions statements attributed to the Navy that this decision might be reversed and the overhaul program would be transferred to the Newport News Shipbuilding and Dry Dock Company in Virginia. Previous ship overhaul work performed by the Philadelphia Naval Shipyard clearly demonstrates it can do this job well. Philadelphia was the site of the last major overhaul of the SARATOGA in 1968, and the aircraft carrier's subsequent service during the Vietnam conflict showed that the work was well done. Because of this admirable track record, I strongly oppose changing the site of the SARATOGA overhaul from Philadelphia to Newport News.

Following the September 22, 1978, release of the General Accounting Office study-stating it would be less expensive to overhaul the SARATOGA in Newport News, I requested the Library of Congress to undertake a study of cost overrun claims submitted to the Navy by the Newport News Shipyard. The Library of Congress report shows since 1973 Newport News submitted to the Navy \$893 million in claims. Of this amount, a claim totaling \$151 million was settled for \$44.3 million. Subsequently, you announced on October 5, 1978, that the remaining \$742 million in pending claims had been settled for approximately \$165 million. Therefore, Newport News agreed to settle its claims for less than 24¢ on the dollar.

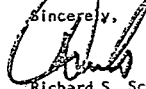
I want to call to your personal attention the fact that earlier this year, in testimony before the House Appropriations Subcommittee on the Department of Defense, Navy officials found that Newport News "has employed dubious techniques to inflate (its) claims. Specific examples of claims items which may constitute violations of fraud ... (are) misleading statements, omission of facts, (and) statements that are demonstrably untrue."

Furthermore, Navy officials testified the Newport News Shipyard, by claiming exaggerated cost overrun claims, was able to report to its stockholders its highest profits in history, even though it is losing large sums on its commercial shipbuilding programs. The Navy testified further that Newport News lost more than \$95 million on three Liquefied Natural Gas carriers before it undertook a "bookkeeping ploy" using excessive cost overrun claims to mislead its stockholders and the public at large into believing it is a profitable shipyard.

Specifically, Newport News has submitted exaggerated cost overrun claims to cover-up losses in its commercial operations. This is a very strong allegation; however, it is the U.S. taxpayer who is being asked to subsidize this losing commercial shipbuilding operation, and it is the same taxpayer who is being deceived into believing this shipyard can overhaul the USS SARATOGA for less than the Philadelphia Naval Shipyard. These gross misconceptions cannot remain hidden from the public.

On March 16, 1978, Admiral H.G. Rickover testified he had written his Navy superiors, as early as fall, 1977, alleging fraudulent cost overrun claims from the Newport News Shipyard. Therefore, as a member of the Defense Appropriations Subcommittee, I would appreciate receiving immediately copies of all Admiral Rickover's letters and/or memorandums outlining his claims of alleged fraud by the Newport News Shipyard.

Sincerely,



Richard S. Schweiker  
United States Senator

RSS:bcm



DEPARTMENT OF THE NAVY  
OFFICE OF THE SECRETARY  
WASHINGTON, D. C. 20350

November 29, 1978

The Honorable Richard S. Schweiker  
United States Senate  
Committee on Appropriations  
Washington, D.C. 20510

Dear Senator Schweiker,

Thank you for your letter of October 25, 1978. I can assure you that any decision concerning the industrial assignment of USS SARATOGA SLEP will be based upon the most exhaustive review of all factors involved. We are currently preparing the Navy's revised cost comparison which will be submitted to Congress prior to January 1979. This new study will also be considered when developing any revised position by Navy. Philadelphia Naval Shipyard's industrial track record has previously been noted and was a factor in the initial selection to do USS SARATOGA SLEP in Philadelphia.

Your comments concerning the cost overruns at Newport News Shipbuilding have been noted. The letters and/or memoranda you requested, however, cannot be provided. In connection with current legal proceedings they have been made available to the Department of Justice in accordance with Navy regulations. Since the allegations contained therein are currently under active investigation, the documents themselves are not available for release. The subject matter of the documents has been the topic of congressional testimony on several occasions. In particular, there has been testimony before the Subcommittee on Priorities and Economy in Government of the Joint Economic Committee, the Committee on Governmental Affairs and the Committee on the Judiciary. Copies of relevant portions of those hearings are enclosed. I believe that these excerpts contain much of the information you requested.

Sincerely,

W. Graham Clibborn, Jr.  
Secretary of the Navy

Encl.

93<sup>TH</sup> CONGRESS }  
2d Session }

SENATE

{ REPORT  
No. 95-1118**CONTRACT DISPUTES ACT OF 1978**

---

**REPORT**

OF THE

**COMMITTEE ON GOVERNMENTAL AFFAIRS**

AND THE

**COMMITTEE ON THE JUDICIARY**  
**UNITED STATES SENATE**

to accompany

**S. 3178****TO PROVIDE FOR THE RESOLUTION OF CLAIMS AND DISPUTES  
RELATING TO GOVERNMENT CONTRACTS AWARDED BY  
EXECUTIVE AGENCIES.****AUGUST 15 (legislative day, May 17), 1978.—Ordered to be printed**

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**U.S. GOVERNMENT PRINTING OFFICE**  
**WASHINGTON : 1978**

## CLAIMS AND DISPUTES SETTLEMENT AUTHORITY

*Section 4(a)* implements the recommendation No. 5 of the Procurement Commission and empowers contracting agencies to settle and pay, and administrative forums to decide, all claims or disputes arising under or growing out of or in connection with the administration or performance of contracts entered into by the United States excluding cases of fraud. This section, which essentially abolishes the distinction between claims "arising under the contract" and those brought for "breach of contract," would eliminate the persistent questions and doubt regarding the authority of procuring agencies to settle certain classes of claims. However, it is not the intent of this section to authorize Agency heads, contracting officers, or agency boards to settle or compromise claims independent of their legal or contractual merits, except as specifically authorized by other statutes such as Public Law 85-804.

Providing the agency boards with the authority to adjudicate all claims is essential to making the system more efficient. There is no valid reason for distinguishing between breach of contract claims that an agency may not settle or pay, and claims arising under the contract, that they may pay. With the right to take a claim directly to court (sec. 10(a)), the contractor's only concern—that of expansion of board jurisdiction to include the handling of all claims and disputes arising from the contract—is eliminated. These two recommendations, all disputes and direct access, taken together insure that a contractor's claim will not be defeated by an artificial division of claims into those that arise under the contract and those for a pure breach of contract.

It is not the intent of this section to change the current procedures being used for "compromising" claims as identified under 31 U.S.C. 952, or to authorize any agency head to settle, compromise, pay, or otherwise adjust any claim involving fraud including fraudulent misrepresentation of fact. The current laws pertaining to fraudulent claims are not affected by the act.

It is not the intent of this section to change the current procedures for settlement of claims by the Justice Department once the claim has been turned over to that body or litigation has commenced in court.

It is also not the intent that the provisions of section 4(a) be construed as abrogating the need for contractors to utilize the provisions of Public Law 85-804 when it is proposed to settle claims against the Government beyond their legal and contractual merits.

*Section 4(b)* states that if a contractor is unable to support any part of his claim and it is determined that such inability is attributable to misrepresentation of fact made with intent to deceive or mislead or fraud on the part of the contractor, he shall be liable to the Government for an amount equal to such unsupported part of the claim in addition to all costs to the Government attributable to the cost of reviewing said part of his claim.



This subsection is included out of concern that the submission of baseless claims contribute to the so-called horsetrading theory where an amount beyond that which can be legitimately claimed is submitted merely as a negotiating tactic. Hence, payment of such a claim by the Government would constitute a windfall to the contractor. It is the committee's view that to the extent that this practice is utilized, it should be eliminated so that disputes encompass only the amount which is truly contested.

Consistent with the limitations expressed in section 4(a) excluding issues of fraud against the United States from the authority of contracting agencies to consider or resolve, actions to enforce the Government's rights under section 4(b) would be solely the responsibility of the Department of Justice and would be instituted by the United States in a court of competent jurisdiction. The procedures now utilized by procurement agencies for reporting suspected fraudulent activity to the Department of Justice would be equally applicable to section 4(b) matters. See, for example, ASPF: 1-111.

If such cases do arise and are thus handled in the courts, other parts of the claim not associated with possible fraud or misrepresentation of fact will continue on in the agency board or in the Court of Claims where the claim originated.

However, any claim to be paid to a contractor will be subject to a setoff where a false claim dispute is resolved against the contractor prior to such payment. The court in its discretion may enjoin any payment to a contractor who is the subject of an action under section 4(b).

This provision is intended to be separate and distinct from the rights now possessed by the Government in legislation such as the False Claims Act, 31 U.S.C. 231 et seq., or the Forfeiture Statute, 28 U.S.C. 2514. That is, section 4(b) is not intended in any way to diminish the rights now afforded to the Government under current legislation. To the extent that contractors set forth claim items and costs on which they can submit a legitimate argument for recovery, this provision would not apply. However, to the extent a contractor increases the claim submission by the fraudulent addition of items or costs or by misrepresenting its claim items or costs, this provision would apply. Under present law, if such fraud or misrepresentation is discovered prior to any payments by the Government, the claim can, in certain circumstances, be forfeited under 28 U.S.C. 2514. Any affirmative recovery by the Government in such a circumstance (where no Government payment has been made) is, however, limited to a \$2,000 penalty under the provisions of the False Claims Act, 31 U.S.C. et seq. Section 4(b) will afford the Government a separate and additional remedy of recovering an amount equal to the fraudulent or misrepresented amount. The present \$2,000 penalty bears no relation to the extent of the fraud attempted by a person who submits such a claim. This small sum lacks sufficient deterrent impact. Providing for a recovery equal to any proven attempted fraud means that the larger the fraud attempted, the greater is the liability to the Government.

It is not contemplated that the administration of section 4(b) would delay legitimate payments to contractors in any way, but to

the extent any delay should occur in payments eventually found to be owing to a contractor, section 12 of the act requires that the contractor be compensated by the payment of interest.

Section 4(a) does not make the Tennessee Valley Authority subject to the Federal Claims Collection Act of 1966 or derogate from its authority to settle, compromise, pay, or otherwise adjust any claim involving fraud. Similarly, because the Tennessee Valley Authority handles its own litigation, its attorneys, rather than the Attorney General, will enforce its rights under section 4(b).

#### DECISION BY THE CONTRACTING OFFICER

Section 5(a) states that all claims are to be submitted in writing and that it is the responsibility of the contracting officer to issue a decision on the claim in writing to the contractor and to inform the contractor of his rights as provided in the Contract Disputes Act. The written decision is to state the reasons for the decision. Specific findings of fact are not required, but, if made will not be binding in any subsequent appeal.

Section 5(b) states that the contracting officer's decision on the claim is final and conclusive unless an appeal or suit is instituted.

Section 5(c) states that upon written request from the contractor that a decision be made on the claim, the contracting officer will make that decision within a 60-day period from receipt of the request. This period may be extended by written agreement between both parties. The establishment of this 60-day period is to insure that a contracting officer will act promptly on all claims and if he should arbitrarily delay, the contractor has recourse to obtaining a decision. Should the contracting officer continued to deny issuing a written decision within the period required, that failure will be construed as his denying the claim and will authorize the commencement of the appeals process. Should the appeals process start without the decision of the contracting officer, the tribunal concerned may, at its option, stay the proceedings to obtain a decision on the claim by the contracting officer.

Section 5 describes explicitly the decisionmaking role of the contracting officer. Equally important is a thorough knowledge by the contractor of the role and authority that the contracting officer plays in the decisionmaking process of the agency he represents. This importance is highlighted as recommendation No. 1 in the Procurement Commission's report. While the objective may be to make the contracting officer the focal point for decisions, practicability dictates that the extent to which the contracting officer relies on his own judgment or abides by the advice or determination of others is dependent on a variety of factors, including the officer's personal knowledge, capability, and executive qualities, as well as the nature of the particular procurement. With so many variables, it is impossible to generalize as to what the contracting officer's role should be in all situations. In addition, it is unrealistic to suggest that the various levels of management responsible for the projects and programs to which a contract relates and that bear the responsibility for the propriety and wisdom of the agency's action should at all times remain aloof from the manner in which contracts are administered and contractual actions are taken.

# ECONOMICS OF DEFENSE PROCUREMENT: SHIPBUILDING CLAIMS

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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  
AND  
NINETY-FIFTH CONGRESS  
FIRST SESSION

PART 1

JUNE 7 AND 25, 1976, AND DECEMBER 29, 1977

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**STATEMENT OF ADM. H. G. RICKOVER, DIRECTOR, NAVAL NUCLEAR PROPULSION PROGRAM, ACCOMPANIED BY T. L. FOSTER, ASSOCIATE DIRECTOR FOR FISCAL MATTERS; AND D. T. LEIGHTON, ASSOCIATE DIRECTOR FOR SURFACE SHIPS AND LIGHT WATER BREEDER REACTOR**

Admiral Rickover. Thank you, Mr. Chairman. The gentleman on my right is Mr. T. L. Foster who handles financial matters for me.

The gentleman on my left is Mr. D. T. Leighton, who is responsible for surface ships in my program.

Mr. Chairman, I was invited to testify today about procurement and related problems. Your staff, however, has asked me to focus on the shipbuilding claims problem, and particularly on the claims submitted by Newport News.

I have testified previously to this committee and to other committees of Congress regarding the shipbuilding claims problem. The current claims problem permeates nearly all aspects of my work. The Navy must rely on contracts in obtaining the ships, weapons, and the supplies it needs from industry. Contracts set forth the rules under which the work is to be done. The responsibility of Government officials involved in the administration of the work is twofold: First, to insure that the work is performed properly in accordance with the contract terms; second, to insure that public funds are legally spent.

Government contracts provide a mechanism to resolve contract disputes. When the parties are unable to resolve their differences through negotiation, the contractor can request a formal ruling by the contracting officer and, if he disagrees with the contracting officer's decision, he may appeal it to the Armed Services Board of Contract Appeals. There, the contractor can have his case heard by an independent forum. If he disagrees with the decision of the Armed Services Board of Contract Appeals, he can appeal to the Court of Claims.

**DOD DECISION TO SHORT-CUT CLAIMS PROCESS**

In the area of shipbuilding claims, the Defense Department has decided to shortcut this process in an effort to resolve quickly the current shipbuilding claims against the Navy. The Defense Department has notified Congress of its intent to settle claims with four shipbuilding companies by use of Public Law 85-804. This statute gives the executive branch authority to provide extracontractual relief whenever such action is deemed necessary to facilitate the national defense. Authority to provide such relief has been vested in senior officials of the Defense Department, but subject to congressional review.

For the past several weeks the Defense Department has been negotiating with the four shipbuilders in an effort to reach a settlement it can present to Congress. The Defense Department has stated that it will report the results to the Armed Services Committees on June 10th. I am not involved in these negotiations.

### PRESSURE ON NAVY TO SETTLE ON LUMP SUM BASIS

For years, the Navy has been under considerable pressure from some shipbuilders to settle claims on a lump sum or total cost basis which would make potentially unprofitable contracts profitable. These shipbuilders assemble large teams, comprised of lawyers, contract specialists and accountants, to draw up their claims. One shipyard used as many as 100 people to prepare a single claim.

To generate the basis for large omnibus claims, employees are encouraged to search out and report actions and events that may be used as the basis for a claim against the Navy. Even minor technical matters are now treated as contract matters.

### CONTRACT CHANGES

As a result, settlement of contract changes has become increasingly difficult. Often the company either refuses to price the changes in advance, quotes excessive and unsupported prices, or demands the right to reopen contract pricing later for other reasons such as the cumulative or ripple effect of changes. Because of the length of time required for ship construction and the continued need to update ship specifications to meet new defense requirements, changes have been and always will be an inherent part of ship construction. Shipbuilders, from many years of experience, are well aware of this when they take Navy shipbuilding contracts. Historically, the changes amount to about 5 percent of the contract work. The Navy, of course, is contractually obligated to equitably adjust contract price and delivery date to reflect the impact of changes. Whenever possible, the Navy tries to reach agreement with the shipbuilder on price and schedule adjustment prior to authorizing the change. However, shipbuilder actions often make this impossible.

### CONTRACTOR ACCUSATIONS

Along with the valid changes shipbuilders include in their claims, they include many allegations against Government administration of contracts. It is frequently difficult to sort out their various accusations, let alone determine legal entitlement or assess cost impact. The evidence presented in the claims is from the viewpoint of the contractors, not from that of those paying the bills.

Shipbuilders have complained of untimely delivery of Government furnished equipment and drawings; defective specifications, excessive tests, trials, and inspections; constructive changes to work scope and letters of direction; Government insistence on erroneous contract interpretations; Government recruiting practices; Government interference with contract performance through imposed limitations on work methods and other shipbuilding operations; changes in health, safety, and pollution control laws; Government "abuse of discretion"; Government imposition of management systems; and the Government's unilateral revision of contract requirements.

Sometimes, the same complaint reappears under various descriptions, leaving the impression of widespread Government interference. Other elements of the claim are based on alleged "facts" which contradict one another. Claimed costs seem to increase exponentially as a function of

the so-called cumulative or ripple effect. And all cost increases are compounded, it is claimed, by inflation.

Some shipbuilders defer the negotiating of certain changes for years, until they know what their total final costs will be. These changes are then consolidated into a general allegation of Government responsibility for all delays and increased costs experienced, without relating the individual causes to specific effects. The amount then claimed has often been inflated sufficiently to produce the profit desired by the shipbuilder, even though the claim is finally settled for but a portion of the claimed amount.

Some shipbuilders' claims contend that all delays and increased costs are the Government's fault, even when the shipbuilder must know that much of the delay and increased costs were caused by factors within his contractual responsibility.

#### NEWPORT NEWS REFUSAL TO CERTIFY CLAIMS

In this connection, it is important to note that Newport News, whose claims comprise the largest portion of outstanding shipbuilders' claims, still refuses to certify that its claims are current, accurate and complete. The Navy is required by Navy procurement directives to obtain such certification before devoting its energies to evaluating data. I believe the company's claims are substantially overstated.

The fact that shipbuilders have been willing to settle their claims for far less than the amount claimed should cause one to question the validity of the amounts our taxpayers are being asked to pay. This may also explain the reluctance of some company officials to certify the claims.

#### NEED FOR NAVY ANALYSIS

The Navy's normal claims evaluation procedure is to determine and pay only for items of Government responsibility. This requires the Navy to perform a rigorous analysis to determine the legal basis for payment. Theoretically, the burden of proof rests on the contractor to demonstrate legal entitlement. In practice, the Navy itself, to demonstrate that the contractor is not entitled to the larger amounts claimed, often ends up having to construct whatever legitimate case the shipbuilder might have. The Navy analysis is time consuming and uses the time of many technical people, to the neglect of their proper work.

#### CONTRACTOR MAY CHANGE RATIONALE

Even when Government officials have spent months analyzing voluminous shipbuilders' claims, and have successfully demonstrated which elements of a claim are not valid, the contractor may then withdraw the claim, only to resubmit it based on a new rationale to support his contention that the Government owes him money. The result is to cripple Navy efforts to evaluate claims and to prolong settlement.

#### CONTRACTOR THREATS TO STOP WORK

Knowing this, some contractors try to force a settlement by threatening to stop work if their claims are not paid quickly. Armed with

voluminous, generally unsupported claims, some shipbuilders and their lobbyists at times take their case directly to Congress, to senior defense officials, and to the press. They accuse working level Navy personnel of wrongfully withholding funds and delaying settlements, of creating a litigious atmosphere, and of undermining good business relations. They allege that the company is in desperate financial straits. They threaten that, unless immediate relief is forthcoming, the Navy will not get its ships, and so on. By these means some shipbuilders believe they will be paid more than if their claims are settled on their legal merits.

A specific example will illustrate this. About 2 years ago, Newport News officials and their superiors at Tenneco began airing complaints concerning the Navy before Congress and in the press. Company officials took the position that they should be guaranteed a 7-percent profit on all Navy shipbuilding contracts after paying interest and other allowable costs.

Despite Newport News' notification as early as October 1974 of its intention to submit claims, the company did not actually submit the claims until recently—\$825 million of the \$894 million total in the last year, of which \$665 million was submitted in the last 6 months. But once these claims were submitted, the pressure to settle them began immediately. On February 19, 1976, Newport News submitted its largest claim on a single contract; a \$221 million, 16 volume claim against the carriers *Nimitz* and *Eisenhower*. The very next day the president of Newport News wrote to the chief of naval operations intimating that Newport News was considering stopping work on the aircraft carrier *Vinson* and not entering into new Navy shipbuilding contracts until its claims were resolved.

Six months earlier, Newport News had actually stopped work on a nuclear-powered cruiser, the CGN-41, claiming that the contract option for construction of that ship was invalid. Construction was resumed under court order. However, Newport News still refuses to recognize the validity of the option because they want a higher price than they had previously agreed to contractually. Although Navy lawyers are convinced that Newport News has no valid legal basis for its contentions, it could take years of litigation to establish that point. When Newport News appealed this matter to the GAO, the GAO decided in the Navy's favor. Newport News is now contesting the GAO decision in the Federal court.

#### NAVY LEGAL COUNSEL AT DISADVANTAGE IN CLAIMS NEGOTIATIONS.

In this regard, it should be noted that the Navy is at a disadvantage in litigation of claims due to the imbalance in legal resources between the Government and the contractors submitting claims. In the case of the cruiser dispute, the brunt of the Navy's legal work is being handled by one lawyer, 2 years out of law school, as one of his several assignments. I am not questioning this individual's competence. I simply want to point out the disparity between the counsel representing the Government and the counsel representing Newport News. To date, Newport News charged the Navy over \$175,000 for outside counsel fees pertaining to the CGN-41 dispute plus a 7-percent profit for Newport

News itself. It is interesting to me that for several years I have been unable to get the Navy to hire outside counsel to help the Navy prepare its case, yet the Navy is paying Newport News for its outside counsel to fight the Navy, as well as a 7-percent profit for doing so.

#### NEWPORT NEWS BRINGS PRESSURE ON NAVY

Newport News officials have made their intentions clear. On March 15, 1976, the president of Newport News sent a publicly released letter to one Congressman in which he stated:

I need to bring all the pressure to bear that I can for a prompt and equitable resolution of the differences between the company and the Navy. Time has run out.

Newport News has brought pressure to bear on the Navy through other public statements; by complaints to defense officials and to Members of Congress; by threats of not taking future Navy business; and by actually stopping work on the CGN-41.

There seems to be a tendency in some quarters to view the shipbuilding claims problem as simply one of human relations. In fact, some claimants would have you believe that the whole problem has been created by a conflict of personalities. They have made shipbuilding claims a political and personal matter. In actuality it is strictly a matter of money. If a shipbuilder intends to hold out for more than he is legally owed, his relations with the Navy will deteriorate until either he convinces the Navy to pay whatever he wants regardless of legal entitlement; or, until the Navy convinces him he will get only what he is legally owed, regardless of the pressures the company may bring to bear. From the Government's standpoint, I view the issue this way: Why bother negotiating and signing contracts if they are not going to be enforced?

#### NAVY SHOULD INSIST ON CONTRACT COMPLIANCE

To maintain a sound basis for conducting future business, I believe the Navy should insist on compliance with its contracts—in Federal court if necessary. If contractors believe they can evade their contractual obligations by submitting inflated claims; refusing to honor contracts; complaining to higher authority, and the like; then all defense contractors will be encouraged to follow this approach in the future.

Our purpose today is to see to it that the Government gets value for the money it spends. This is a practical problem agreed to by all men of good will.

I try to resist the giving away by the Navy of money that contractors are not legally entitled to. Of course, everyone who testifies is all for economy. But some who testify "for economy" do so for the same reason that a fox hunter might join the SPCA.

Some people say I have no business becoming involved in or criticizing the contracting or other methods of the Defense Department. They say that if any criticism is needed, it should be left to those whose job this is. But some of these people have ceased to be capable of self-criticism. Although these officials have great power to protect the taxpayers, they sometimes appear impotent when called upon to do so. It is as if Prometheus had become manager of only a match factory.



People who try to improve the situation run considerable risk. I am reminded of Admiral St. Vincent—Lord Jarvis—who quelled the mutiny in the Mediterranean Fleet and prepared the British Navy for its later victory by Admiral Nelson at Trafalgar. He became the First Lord of the Admiralty. However, he was removed from office for trying to abolish dockyard corruption.

Although financial dishonesty is a matter of great importance, the real evil that follows general commercial dishonesty is the intellectual dishonesty it generates.

Philosophically, I am also aware that there may be some wealthy corporate officials who, by their actions, appear firmly to believe in the hereafter; also that shrouds have pockets. The recording Angel may occasionally shed a tear for a sinner but I doubt he will do so for these officials.

#### CLAIMS HAVE NOT GONE THROUGH NORMAL AUDIT OR ANALYSIS

Mr. Chairman, this is a brief summary of what confronts the Navy. I have not read the 64 volumes of claims submitted by Newport News. To my knowledge, neither has anyone else in the Defense Department. The claims have not gone through the normal audit, or technical and legal analysis. However, some general items of interest in the claims have been brought to my attention.

I would be glad to answer any questions you may have.

I would like to make one additional point. An attempt is now being made by the Defense Department to negotiate and settle the claims. However, only one party to those negotiations knows what is in the claims. The other party attempting to reach an agreement has never read the claims. In these circumstances, how can the Government then decide whether the settlement reflects the legal merits of the claim? The issue instead has become one of passion.

What would the Internal Revenue Service do if some working man submitted an income tax return about three times lower than he should have? Would they sit down and argue with him for days and weeks and months, and then, since they hadn't looked at the income tax return and studied it, settle at about one-third to one-half of the difference?

That is an analogous situation, except that in one case a large, powerful corporation is involved, and in the other case an ordinary, defenseless citizen. I think there are more of the latter in this country than there are of the former. It is the Government's responsibility to look out for the ordinary citizen, too.

Senator PROXMIRE. Thank you very much for a most impressive statement, Admiral.

Let me point out in the table that we have here the claims that Newport News, Ingalls and Boland have filed. Newport News has filed claims totalling \$151 million, \$83 million which as I understand it was revised as of February 1976, 4 months ago.

They filed claims of \$159 million about 1 year ago, \$78 million about 11 months ago, and \$191 million, which was revised in March of 1976, which is the effective date. So it is only 3 months for this sum; \$221 million in February of 1976; \$92 million in March, just a couple of

months ago; and as you say, what was your figure, three-quarters, 80 percent of this \$894 million has been within this year, 1976.  
[The table referred to follows:]

## CLAIMS BY SHIPBUILDERS AGAINST THE NAVY

[Pending as of Apr. 1, 1976]

Shipbuilder and date received by Navy	Amount of claim
<b>Newport News (Tenneco):</b>	
LGN 36-37:	
June 11, 1973.....	\$35,036,981
Revised Sept. 13, 1973.....	3,670,662
Revised Nov. 13, 1973.....	3,664,600
Revised Jan. 1, 1974.....	848,603
Revised June 3, 1974.....	6,082,316
Revised Oct. 31, 1974.....	19,456,498
Revised Feb. 13, 1976.....	82,274,661
Subtotal.....	151,040,521
CGN 34-40: June 1975.....	159,774,936
SSN-688: July, 1975, revised March 1976.....	78,545,142
SSN-639, 91, 93, 95: July, 1975, revised March 1976.....	191,567,199
CVN 68-69: February 1976.....	221,280,223
SSN 685-687: March 1976.....	92,099,492
Subtotal.....	694,305,520
<b>Ingall: (Litton):</b>	
LHA 1-5:	
March 1972.....	270,700,000
Revised March 1973.....	105,300,000
Revised July 1974.....	24,000,000
Revised April 1975—Agreement to renegotiate January 1976.....	104,847,301
Subtotal.....	504,847,301
Boland marine: DLG-10.....	3,297,314
<b>Total.....</b>	<b>1,402,450,135</b>

Admiral RICKOVER. Yes, about \$665 million in the last 6 months.

Senator PROXMIRE. These volumes are the claims?

Admiral RICKOVER. Yes, sir. Those are the Newport News claims.

Senator PROXMIRE. Extending over almost one-third of the entire circular table.

Now, these contain, as I understand it, allegations, assertions that have to be checked by the Navy.

## CLEMENTS' PROPOSAL

It is not a matter of putting a large number of people to work on each volume, so that they could do it in a matter of days or a few weeks, they have to be checked over a period of time. It takes a lot of time to do it. And it takes months and months to do it, and they have had only a few weeks. And on April 30, as I understand it, the Deputy Secretary of Defense, Mr. Clements, proposed to the Congress under the Proxmire amendment, my amendment, which provided that they have to submit this to the Congress for 60 legislative days before it can be paid, a proposal to pay \$750 million of these claims. Is that roughly correct?

Admiral RICKOVER. I believe that is correct, sir.

Senator PROXMIRE. And that will expire as I understand it about the third week in July. And the issue is whether or not—and that is why this hearing is being held—under these circumstances we should insist that, first, there is an audit, an evaluation and analysis so that we know whether or not this amount of money is due and ought to be paid.

Admiral RICKOVER. There is also another issue, sir. The settlement may not encompass all of these claims. It may only settle part of these claims. Other claims will be left outstanding.

Senator PROXMIRE. There are further complications. The GAO has stated that it may well be more—\$740 million I think is the precise amount the Secretary has asked—more than \$740 million, No. 1, and No. 2, this would only be part of the claims, and there would still be claims pending.

Can you give me the justification of why it is so important that the claims be audited? I think I know, but I would like to have you state it for the record. If the shipbuilders costs have gone up, and they are losing money on their Navy contracts, what is the argument against revising them so that they can make a reasonable profit and stay in business?

#### WHY CLAIMS SHOULD BE AUDITED

Admiral RICKOVER. Shipbuilding contracts are probably the most generous contracts let by the Defense Department primarily because these contracts provide for escalation. The Bureau of Labor Statistics publishes indices reflecting inflation in the U.S. economy. Shipbuilding contracts contain provisions for escalation payments based on these indices. In that sense, shipbuilders are better off than almost anyone else. Thus, in pursuing claims shipbuilders are inevitably bound to say that all of the fault for other problems in the shipyard adheres to the Government. Without reading all of those claims volumes, I am sure that is what they all say; that everything that has happened at the shipyard is the fault of the Government. Maybe they do not put in the cost of postage stamps. But anything that is attributed to the Government is then hiked up by various other factors. I could give you many examples of that.

Let me take manpower as an example. May I, sir?

Senator PROXMIRE. Yes, sir.

#### NEWPORT NEWS RESPONSIBLE FOR MUCH OF DELAY AND INCREASED COSTS

Admiral RICKOVER. The Government may be responsible for some delay under these contracts, and any extra costs occasioned thereby. However, the extent of the Government's liability can be determined only by a thorough review and audit. My view, however, is that much of the delay and increased costs was the result of Newport News' failure in the early 1970's to obtain the number of qualified people required to meet its contract schedules.

In 1971 Newport News identified a need to increase manpower from about 19,000 to 30,000 people to accommodate work already under contract. The company was unable to obtain all of the required manpower, and subsequently abandoned its plans. The influx of new, inexperienced people at Newport News caused decreased productivity and increased rework. As a result, ship schedules slipped. Under the terms of the Navy's shipbuilding contracts, Newport News bears responsibility for their inability to hire adequate skilled manpower to meet their contract requirements.

Lack of manpower is the basic reason for the delays and extra costs.

## NAVY RECRUITING PRACTICES

Senator PROXMIER. Let me follow up on that specific instance that you give, because I think it is an interesting illustration of the fact that the merit of these claims should be challenged and challenged vigorously.

For example, there is a section called "increased cost resulting from Navy recruiting practices." According to Newport News, the Navy hired numbers of workers away from Newport News, causing Newport News to hire new workers who had to be trained.

Admiral RICKOVER. That is a very good illustration, sir.

Senator PROXMIER. And the increased training costs were \$23 million. And Newport News wants the Navy to reimburse it for that \$32 million. What is your reaction to that?

Admiral RICKOVER. Newport News claims that the Navy, particularly the Norfolk Naval Shipyard, recruited company employees, and therefore owes Newport News for the cost of recruiting and training replacements. Newport News claims training costs of \$25,000 for each production and maintenance worker, and \$35,000 for each salaried and design employee hired by the Navy. By the time other Newport News factors are thrown in, the claims include an average charge against the Navy of \$42,000 for each person alleged to have been hired by the Navy. If Newport News actually spent \$25,000 training each new production and maintenance employee, and \$35,000 training each new salaried and design employee, as it claims, its total training costs for 1973 and 1974 would have been \$380 million.

Senator PROXMIER. Where do they get that figure of \$42,000 to train employees, \$25,000 for the blue-collar worker and \$35,000 for the clerical worker, where do they get those figures?

Admiral RICKOVER. The claims do not say, sir.

Senator PROXMIER. That is the cost of a 4-year Harvard education—maybe it is more than the cost of a Harvard education.

Admiral RICKOVER. Let me complete this, if I may, sir, and then I will answer some of your questions.

Let me show you what, in my opinion, is the vast absurdity of this. To train all of the people they hired during that period, following the Newport News rationale, they would have had to put out \$380 million for training. That is more than half the total Newport News labor cost, the entire labor cost, during that period. Yet, according to Defense Contract Audit Agency figures, the company actually spent only \$9.2 million for training in that period, about 2½ percent of the per capita training costs included in their claims.

You were talking about absurdities. This claim element is certainly absurd. Imagine a company spending for training half of the entire amount spent for all labor costs.

Further, Newport News employees are eligible to apply for Government jobs. This is a right of all citizens. During the period in question Newport News was attempting to recruit Norfolk Naval Shipyard employees through billboard advertising near the Navy yard, and by sending letters and employment applications to individual naval shipyard employees. Mind you, now, they are accusing the Government on account of its hiring of company employees, but during the same period

the company attempted to recruit Navy people. Can you imagine the howl that would arise if the Navy submitted a claim against Newport News for extra recruiting and training caused by the Navy employees who left to work for Newport News? During the period claimed, Newport News states that 10,493 employees voluntarily left the company. Newport News estimated that about 760 of these 10,000 people subsequently were employed by the Navy. This is about 7 percent of the total. I wonder if Newport News is preparing claims against those who hired the other 93 percent? At the rate of \$12,000 a person they could claim that someone owes them over \$400 million for hiring these people away from them.

There is also a philosophical aspect to this. Suppose the Army drafts a man who works for Newport News, suppose a Newport News man volunteers to enter the Armed Services, or suppose he becomes a postman. The Government, on the same basis would be required to pay the company. That amounts to involuntary servitude. I don't think the officials of that company have ever read the 14th, 15th, and 16th amendments, which abolished involuntary servitude in 1863. I think they ought to read the Constitution. Is the Government required when it makes a contract with a company to have agreed to involuntary servitude, in theory or practice?

Mr. Chairman, if you worked for Newport News and you quit to become a Senator, they would attempt to charge the Government.

Now, there are many defense contractors in the Norfolk, Va., area who probably have hired Newport News people and whose people in turn have been hired by Newport News. Will there be claims and counterclaims for this?

Senator PROXMIER. You are saying in the first place that it is absurd to charge the Federal Government with the cost of training people who left Newport News to work for the Government in some respect, No. 1. And No. 2, the amount of the cost seems to me to be ridiculous. I don't know. It is conceivable that there might be some way that you can justify very high cost. But \$25,000 or \$35,000 per employee—

Admiral RICKOVER. As I said, at the rate claimed, training costs would amount to half their total labor cost. Now you have an idea of what the Government is faced with in looking at these 64 volumes. Most of them contain similar exaggerations.

#### PARKINSON'S LAW

Senator PROXMIER. Newport News is claiming \$100 million based on what they call Parkinson's law, of which you may have heard. Newport News said the Government delayed ship deliveries, and this caused the workers to become less productive. Could you explain whether the Navy did delay the deliveries; and if it did, how it could make a \$100 million claim for the reduced productivity of its own workers? Doesn't this amount to charging the Government for corporate featherbedding?

Admiral RICKOVER. There may also be a "Peter Principle" hidden somewhere in all these claims, and several other theories that I have heard of, such as Murphy's law.

Senator PROXMIER. If something can go wrong it always will.

**Admiral RICKOVER.** Yes, sir. Perhaps those who train pigeons to guide missiles have also inspired a rationale for claims. Nobody has looked at these claims except the people who wrote them. I doubt if any responsible official of that company has ever read those volumes. If one had, the claims would probably have never been submitted.

**Senator PROXMIER.** Let me just read this, the language in the claim itself, because I just didn't mention Parkinson's law as something the columnists could use. This is what they said:

It has just been a few years (1957) since C. Northcote Parkinson introduced the now famous law which deals with the deterioration of labor. Professor Parkinson stated: "Work expands to fill the time available for its completion." Although this law may have been given some humorous connotation, particularly about the British bureaucratic system, Parkinson accurately described this one aspect of actual human behavior. Workers not only tend to use up the allotted time to perform a given task, but they also tend to use up more time than should be normally required to complete the task. People tend to learn from past experiences, and when too much time is utilized to perform previous tasks, additional time will also be required to perform subsequent tasks. Experiments by a few psychologists have been conducted in order to prove or disprove Parkinson's law and to better understand human motivation from which Parkinson deduced his law. These experiments affirm the effects of Parkinson's law on deterioration of labor, and support the contractor's request for equitable adjustment in the contract due to Government actions which caused the period of performance to be expanded.

Now, there isn't any question that Mr. Parkinson has something, as I think we realize, that there is the tendency in bureaucracy—if you stretch out the amount of time to perform a particular task, the bureaucracy will take their sweet time in doing it. But the whole point in having a private firm bid and work on this is that they will have the intelligence and the efficiency and the discipline not to let this bureaucratic law apply here like it does to British bureaucracy, and I am sure to every bureaucracy. This should be an incentive for them to hold down their cost. If they don't need workers they lay off workers. That is done.

**Admiral RICKOVER.** Sir, that principle sadly became known to Adam and Eve when they invited the snake to join them.

Now, let me tell you about Professor Parkinson. I actually met him. He was a British professor who in 1957 postulated that in a bureaucracy there is inexorable growth over time of the number of people hired to accomplish a given amount of work. The Defense Department is a prime example of this. Newport News is now trying to apply Parkinson's law to justify their claims. The company states that their workers became less efficient every time the schedule was revised. According to Newport News, 15 minutes out of every productive labor hour spent in the month following the schedule change was wasted due to Parkinson's law. Presumably it wouldn't have been wasted if Parkinson had never written his law. In the second month, Newport News claims 13 minutes an hour was wasted due to Parkinson's law; the third month, 9½ minutes, and so on, until the next scheduled revision, when the calculation is repeated.

**Senator PROXMIER.** Where do they get these figures, 15 minutes, 13 minutes?

**Admiral RICKOVER.** The claims do not tell where those figures come from. The company must have Parkinsonologists on its staff to determine how much time was lost.

## SHORTAGE OF SKILLED LABOR AT NEWPORT NEWS

There are several obvious problems with the Newport News approach. First, much of the delay causing schedule revisions was due to a shortage of skilled paid labor, which is Newport News' responsibility, not the Government's. Second, the company had not too many people, but rather too few people. Third, I do not see any appropriate analogies between a tendency of bureaucracies to expand and the impact of a schedule revision in a private shipyard. Finally, there is no basis for the figures used in the Newport News calculation.

Senator PROXMIER. What you are saying now is that they didn't have an excess of workers, they had a shortage in fact?

Admiral RICKOVER. Yes, sir. They had too few skilled workers. That is the basic problem underlying all these claims. Newport News was unable to hire the people it needed.

Furthermore, and they have a perfect right to do so, they established a new commercial yard right alongside the Navy yard and now they have to use people in that yard and cannot man the Navy shipyard.

Now, let me get back to the Parkinson thing. Can you imagine a janitor who, upon finding out that a schedule has been changed, becomes so sad that he goes home, complains to his wife, mopes, and is so sad in fact that the next month he is only 75 percent efficient, and it takes him about 10 months to get over it.

Just think about that. That gives you a concept of what is contained in these claims volumes.

Since Mr. Parkinson's law is included in every one of these claims, I took occasion to call several people who I know in industry. I called the commanding officers of three naval shipyards and asked them if they had ever seen the phenomenon that when a schedule was changed everybody was so sad that the next month they only worked for three-quarters of each hour. They said they had never heard of such a thing. I also talked to a man who had a leading position in a private shipyard employing about 17,000 people, and he said that he never heard of such a thing.

This illustrates the extent to which Newport News has gone in attempting to justify their claims and why they want them settled on a lump basis without anyone looking at the claims. I think that to do this would be one of the biggest ripoffs in the history of the United States. Let me add one more thing. The fact that shipbuilders traditionally settle for one-half or less of the amount claimed shows that these are not valid claims.

Senator PROXMIER. It also shows that we certainly ought to have an audit and an analysis and evaluation before we pay a penny.

## PUBLIC LAW 85-804

Admiral RICKOVER. Sir, that is now up to Congress. Congress has given to the Defense Department the right to try to settle these claims under Public Law 85-804. But Congress has a veto power over the settlement. Of course, the Defense Department wants the company to continue to do its job, instead of threatening to stop work and the like. That is why they are attempting this.

## CLAIMS BASED ON ENVIRONMENTAL LAWS

Senator PROXMIRE. Admiral, you mentioned the fact that Newport News also does commercial as well as Navy work. But I notice it alleges that all the added costs due to the Federal environment laws should be charged to the Navy. Should the Navy have to pay any of those costs, and if so, shouldn't the commercial work be a part of it?

## EFFECTS OF COMMERCIAL ACTIVITIES ON CLAIMS BASED ON ENVIRONMENTAL LAWS

Admiral RICKOVER. This is an issue that has been called to my attention in the areas of claims for changes in Government laws and regulations such as environmental and occupational safety regulations. While I do not consider that Newport News should be entitled to a price adjustment for these items, it is worth noting the method used by Newport News to allocate these costs. Newport News does not allocate any of the alleged extra costs to its commercial work even though these regulations apply to that work as well as Navy work. Since the total impact of these regulations is allocated to Navy contracts, the effect of paying the amounts claimed would be to increase the profit of commercial work at the expense of the Navy. If Newport News properly allocated these costs among all shipyard work, the amounts of all the claims would be reduced. You see, they have already taken this up in overhead, which is required by cost accounting standards.

Senator PROXMIRE. Does that apply also to the antipollution laws?

Admiral RICKOVER. Yes, sir. That is an overhead item, and they are charging that now to overhead. But they also put the same amounts into this claim so that they get immediate payment, instead of charging it off over a period of years, according to the rules on overhead.

Senator PROXMIRE. Then you are saying it is double accounting?

## DOUBLE CHARGING

Admiral RICKOVER. It would appear that it is double charging, that is right.

## EXCESSIVE GOVERNMENT INSPECTORS

Senator PROXMIRE. Now, Newport News claims about excessive Government inspectors. And in the claims for the nuclear cruisers 38, 39, and 40, it says that there were 2,900 Government inspectors. Were there really 2,900 Government inspectors in this yard?

## NUMBER OF GOVERNMENT WORKERS

Admiral RICKOVER. No, sir, of course not. And Newport News well knows this. I will give you some facts. In its management summary, Newport News leaves the impression that the Navy has 2,900 inspectors. The shipyard fails to mention that of the 2,900 Government inspectors, over 2,000 were members of the Navy crew getting ready to take the aircraft carrier *Nimitz* to sea and were not even allowed on the same pier as the cruisers. The remaining 700 or 800 Government personnel at the shipyard includes members of other ships' forces. Only



a small number of people were directly responsible for inspecting the contractor's work.

Senator PROXMIER. You say there were not 2,900, but 2,000 of these were naval personnel?

Admiral RICKOVER. Some of the people in the Engineering Department, as required by the Navy, would inspect the work after Newport News did it, and if they found something wrong they would complain to their captain.

Senator PROXMIER. And one of their claims is that they have excessive inspection, and it is documented by the fact that there were at Newport News 2,900 inspectors when, as you say, two-thirds of these were naval personnel who weren't even permitted in the yard, and of the remaining number, this is all the Government personnel involved?

Admiral RICKOVER. Yes, sir. They were there for every kind of purpose, including mess cooks.

Incidentally, there was an item in the paper the other day of some bright law student reading back in history and noticing that around the time of the Civil War a law was passed making it possible for any citizen to sue anyone who made what he considered a false claim against the Government. I would be very careful on some of the items in these books. If some people want to pay their way through college it only costs \$10 to file a case.

Senator PROXMIER. I understand that you believe that most of the Navy changes did not delay construction or increase costs. Do you have some examples of the changes that could cause a delay in construction?

#### GOVERNMENT CHANGES

Admiral RICKOVER. The major part of the delay, by far the major part, is due to the fact that Newport News was not manning the ships to the degree required to meet their schedules. Now, the Navy does owe Newport News some additional money for contract changes. However, that amount cannot be determined until the company identifies the costs and justifies it. Navy policy is to negotiate the price and delivery impact of a contract change before it is issued. But some shipbuilders, including Newport News, refuse to do this. The Navy would like to work on the basis that if it has a change to be made, the cost and schedular impact would be settled ahead of time. Yet frequently the company asks for very exorbitant prices, and the Navy just will not stand for it.

Now, I mentioned earlier that all of the changes on the average ship equal about 5 percent of the total construction cost. That is all. Years later when the shipbuilder knows what his final costs are, he makes his claims around any unpriced changes and makes a general allegation of Government responsibility for all delays and increased costs experienced, without relating individual causes to specific effects. Shipbuilders are often correct in claiming that the Government owes them some money for certain actions. The problem usually is that the amount claimed bears no relation to the impact of the Government actions.

#### NEED FOR NAVY TO KEEP RUNNING RECORD OF CHANGES

Senator PROXMIER. Admiral, why doesn't the Navy keep track, keep a running record of its changes and delays in delivery dates, and

so forth, and require the contractor to report any other delays currently, up to date, perhaps at the end of every week or every month, so that there is a clear public record of what the delays are, so that the Navy as a prudent buyer would have some notion of what is happening to its cost? Anybody buying a home has had the experience of wanting a little change in his house, and the architect or the contractor, you are giving him a hard time with this. But most of us have enough sense to require the contractor to tell us what it is going to cost. And it seems to me that that is a very simple procedure that the Navy should follow.

**Admiral RICKOVER.** Senator Proxmire, a contract is based on good faith. The Navy simply doesn't have the people to monitor the work that closely. As I mentioned before, one young lawyer is bearing the brunt of the Navy legal work on the CGN-41 dispute.

**Senator PROXMIRE.** When we are going to pay three-quarters of a billion dollars—that is the proposal of the Under Secretary of Defense—it seems to me that it would be worthwhile to make a small investment to keep track.

**Admiral RICKOVER.** The Congress has limited the number of people the Navy can hire. Therefore, the Navy uses them for the most important thing, which, in a shipyard, is to get the ships built properly. The Navy does not have the people, and it really shouldn't be necessary. This sort of situation did not exist until about 6 to 8 years ago. This is a brand new situation. Also, there is a different kind of people involved. This is particularly true since the conglomerates took over. The conglomerates wouldn't care if they were building ships or manufacturing horse turds. Their main goal is to make money, no matter how.

**Senator PROXMIRE.** After all, if we are foolish enough to go ahead and pay claims like this, we can expect it. If you or I would run a corporation, no matter how idealistic you may be, that bottom line is essential, if you are going to keep your job you have a responsibility to your stockholders to make money and file claims for everything in sight. You can't expect to rely somehow on just being a good person or having a patriotic desire to be as ethical as possible. When these people can make hundreds of millions or billions of dollars by filing these claims and get away with it, they will do it.

**Admiral RICKOVER.** Yes, sir. You have been around Washington for a long enough time to know that not far away from here is a huge building with large printing presses that turn out money. These people would like to get some of it.

**Senator PROXMIRE.** What I am trying to say is that we have to provide the discipline, we have to provide the restraint, and we have to just refuse to pay these claims unless they are audited and documented and we know exactly what we are paying.

**Admiral RICKOVER.** I agree with you, sir. I would not pay a single claim against the U.S. Government unless it is legal. That is what I have been advocating. But to be legal with contractors, particularly the large ones, is not in fashion anymore. They have political influence, they contribute to campaign funds, and they know Members of Congress and high officials in the Defense Department. How does one sole person in the Navy Department fight that sort of a situation? The only thing I can do is what you have asked me to do—air the case. I will

give you some examples of what is contained in these claims. This is a very important statement.

#### BACKGROUND OF NEWPORT NEWS CLAIMS

In late 1972 and early 1973 the Navy and Newport News settled several delay issues which the company is not attempting to reopen. Mind you, they were settled by mutual agreement. In February 1973, Newport News and the Navy agreed to a full and final settlement for all claims, including delays and disruptions for late delivery of Government-furnished equipment and information on the CVAN-68, that is the *Nimitz*, and the CVAN-69. Yet Newport News now claims the Navy should pay them an additional \$10 million on this contract for these very same delays on the basis that Newport News did not anticipate these costs when they negotiated the previous settlement. Now they are reopening something which they signed off and settled.

I will give you another example.

In December 1972 the chairman of the board of Newport News agreed to a claim release and an extension in contract delivery dates of about 23 weeks for two submarines, the 686 and 687 because of a strike at a Newport News subcontractor. Now Newport News claims the Navy is responsible for 134 weeks delay on these ships, a period which includes the 66-week delay for which the company already gave a claims release. At the \$250,000 per week delay rate included in the claim, the shipyard is requesting \$20 million in delay costs it previously agreed were not the Government's responsibility. Why not, Mr. Chairman? The Government is an easy mark. All the contractor has to do is add another 10 volumes which the Government won't read. They can just ask for anything they want, and it will be settled by agreement.

#### DISRUPTION

Senator PROXMIRE. Now, Newport News claims the Navy owes it \$15 million for what they call disruption, in addition to the contract changes and excessive inspection they allege disruption was caused by late fines, purchase orders, security requirements, and several other factors. Is that amount warranted?

Admiral RICKOVER. It is obvious you are in Government and not in industry, Mr. Chairman, it is not \$15 million, it is \$158 million. But that is merely a bagatelle.

Senator PROXMIRE. I stand corrected. Our figure is \$15 million. You said \$158 million?

Admiral RICKOVER. That is correct, it should be \$158 million. I will attempt to answer your question.

#### IMPOSSIBLE TO EVALUATE CLAIM FROM DATA SUBMITTED

From the data submitted by Newport News it is impossible to evaluate this part of the claim. The company makes no attempt to establish a cause-and-effect relationship. The company calculated the \$158 million claimed for disruption by assigning to every man-hour of effort on Navy shipbuilding contracts a penalty ranging from 1 to 8 minutes of extra effort for each man-hour of effort expended. Supposedly the

extra effort was required due to the disruptive effect of Government actions. The company admits that their analysis is based on engineering judgment as to the degree of disruption. To evaluate the company's allegations would require a detailed review to determine how contract work was disrupted; precisely when disruptions occurred; the locations on ships or in the yard where the disruption occurred; which class of crafts were disrupted; the work schedule before, during and after the disruption; and what action was taken by the company to mitigate disruptions; and how many people were disrupted for how long. The company's claims do not provide sufficient data for the Navy to make such an evaluation. Yet, that is one of the major points in the claims. It is up to the Navy to prove that the contractor is wrong, which is putting the shoe on the wrong foot. This is the type of fouled up mess the Navy has gotten itself into. Now, contractors will submit anything and everything and refuse to certify it, and then require the Navy to show where they are wrong.

#### DID CONTRACTOR SIT ON CLAIMS?

Senator PROXMIRE. Admiral, one of the most disturbing aspects of this is that it appears that many of these claims were prepared months before they were filed. It appears that they accumulated them, documented them, prepared them, and finished them, and then sat on them for awhile. And then they came in, in February or March, with the claims.

Admiral RICKOVER. I have some information on that, sir.

Senator PROXMIRE. If that is the case, it seems to me that it may have been calculated, especially in view of the timing of the Under Secretary's requests to Congress to pay \$750 million in claims; it may have been calculated to provide a situation in which there wouldn't be time to analyze and audit these claims.

Admiral RICKOVER. I, of course, can't say what went on in their minds. But there is a Latin expression that goes to the effect that facts speak for themselves—*Res ipse loquatur*. You are a lawyer and understand these things.

Senator PROXMIRE. I am not a lawyer.

Admiral RICKOVER. *Res ipse loquatur*.

#### LAG BETWEEN PRICING AND SUBMITTAL OF CLAIMS

The Newport News claims indicate that the SSN-686 and 687 claim was priced out in May 1975. The claim was not submitted to the Navy until March 1976, 10 months later.

The president of Newport News has stated that "if the 688 class matters could in effect be settled, maybe the 686 and 687 claims wouldn't have to be submitted."

Other Newport News claims also show a timing lag between when the pricing was completed and when the claim was submitted.

Newport News announced in October 1974, its intention to file claims under all these contracts. The effect of saving them up resulted in over \$800 million of Newport News claims submitted to the Navy in the 12-month period. And, as I mentioned before, \$665 million was submitted in the last 6 months.

The large claims backlog is now being cited to justify a quick settlement without looking into the details of the claims. Newport News claims include a charge to the Navy of \$2.7 million for 110 man-years of effort in preparing its claims. Obviously the Navy cannot evaluate these claims quickly even if the company substantiated them and certified them.

Senator PROXMIER. Admiral, there is a Navy procurement regulation that requires contractors to certify under oath that their claims are current, complete, and accurate. Has Newport News certified its claims?

#### REFUSAL TO CERTIFY MOST CLAIMS

Admiral RICKOVER. With one exception, Newport News has refused to certify that its shipbuilding claims are current, complete, and accurate, notwithstanding Navy requirements. In one case where Newport News submitted the required certifications the facts are as follows.

In October 1975, after repeated requests by the Navy, Newport News certified a \$142 million claim against the first five 688 class submarines. The Navy began its evaluation of the claim. In early March 1976, 6 months later, Navy officials told Newport News they were ready to make a \$10 million provisional payment against the claim. Five days after such notification, and just before the provisional payment of \$10 million was to be made, the company submitted a revised claim almost doubling the amount of the entire claim. Newport News officials refused to certify the revised claim, and backup sheets on the second claim showed that most of the calculations for that claim were performed by August 1975, 2 months prior to the date of the Newport News certification that the first claim was current, complete, and accurate.

Mr. Chairman, do you get the import of this last statement? They had the second claim ready when they certified the first one?

Newport News officials have been trying to negotiate resolution of the certification issue with senior Navy officials. At one point the company was suggesting that it would provide the required certification if the Navy would agree in advance that the word "current" would not mean current, "complete" would not mean complete, "accurate" would not mean accurate, and that the certification would have no significance with regard to the false claims statute.

If the Navy would agree with these conditions, the company would then certify the claims.

#### ARE CLAIMS FRAUDULENT?

Senator PROXMIER. Admiral, you have testified about inflated figures, unsubstantiated allegations charging the Navy with commercial costs, and possible double accounting. Is it possible that these claims were not only inflated and exaggerated, but that they are also fraudulent?

#### CLAIMS GREATLY EXAGGERATED AND UNSUPPORTED

Admiral RICKOVER. Mr. Chairman, the determination of whether or not a claim is fraudulent is a legal one. I am not competent to make this determination. In my opinion, however, the claims are greatly exag-

gerated and unsupported. Stating it another way, if the Navy were to accept the claims at face value, the Government would pay far more than I believe it legally owes under these contracts. To determine how much of the claims are valid would require a detailed technical review and audit by the Navy.

For nearly all of the Newport News claims this hasn't been done. To the extent that these claims have been reviewed to date the Navy legal, contract, and technical personnel have found them to be grossly overstated.

Senator PROXMIRE. What evidence is there, if any, that these were intentionally exaggerated?

#### WHO IS RESPONSIBLE FOR DELAYS?

Admiral RICKOVER. I have no evidence, sir. All I know is that they put lots of people to work drumming up as many claims as they can.

Senator PROXMIRE. Doesn't much of the claim question boil down to whether Newport News or the Navy is responsible for the delays? And isn't it correct that the contractor had severe labor turnover problems, and shortages of skilled workers and a high reject work rate?

Admiral RICKOVER. Yes, sir. The company also set up another brand-new yard where ships are being built on a firm fixed price basis for the Maritime Administration. The Navy contracts are fixed price, too. But the Navy has incentive features and change clauses and other provisions in our contract against which to submit claims.

Senator PROXMIRE. How about the commercials, do they have changes, too?

Admiral RICKOVER. I don't know the number, sir. But I would doubt that they have many.

Senator PROXMIRE. Nothing in this proportion, at least?

Admiral RICKOVER. No, sir. That is a question you might ask the company. Are they attempting to get money from the companies for whom they are building these commercial ships?

Senator PROXMIRE. Are you saying overall that the contractor is responsible for most of these cost overruns, and that the contracts are not inequitable as the contractor alleges?

Admiral RICKOVER. There is no question that there are some elements of Navy responsibility as I have mentioned.

I have one further comment on that. About \$430 million of the \$894 claimed by Newport News is for the cost of the delay. Forty-eight percent of the Newport News claims is attributed to delay costs. The claims are based on the assumption that the Government is responsible for all the delays that have taken place. Further, the Navy's experience is that the costs per day of delay claimed by Newport News are usually inflated. The Navy doubtless owes Newport News for some costs for delays on these contracts. However, to determine the proper amount will require extensive analysis. Based on past experience, and the preliminary reviews we have made so far of these claims, I am confident that the amount which Newport News is legally entitled for delay is a small fraction of the \$430 million claimed by Newport News.

Senator PROXMIRE. There have been public statements about the financial plight of the shipbuilding industry, and that shipbuilders are losing money on Navy contracts. What are the facts as you understand them?

## FINANCES OF SHIPBUILDERS NOT AVAILABLE TO DOD

Admiral RICKOVER. I doubt that any one in the Government knows the real financial condition of the shipbuilders and their parent conglomerates. The figures are not made available to the Defense Department in a form than can be verified. In shipbuilding, annual profit figures can fluctuate widely, depending on management estimates of final progress toward completion, costs, and revenues. Often shipbuilders refuse to make their records substantiating these estimates available to the Defense Department. As a result, DOD cannot confirm or refute company figures. For 1975, however, General Dynamics and Tenneco reported record net profits of \$84.5 million and \$342.9 million, respectively. These were record profits. Newport News reported record profits in 1975 of \$30.3 million, the highest in its 89-year history. Since acquisition by Tenneco in mid-1968, Newport News has never reported a loss.

Senator PROXMIRE. What do you think as a matter of public policy of requiring contractors to report to the Defense Department at least what their profits are so that that information is available?

Admiral RICKOVER. I have a recommendation on that that I will come to in a minute, if I may, sir.

## PROFITS BASED ON PROJECTED CLAIMS SETTLEMENTS

In reporting to stockholders and to the Securities and Exchange Commission, shipbuilders have calculated profits based on projected claim settlements. The Defense Department does not get access to the reports behind company profit calculations. Therefore, no one in the Defense Department can determine with any certainty the financial condition of a shipyard or its parent conglomerate. I recommend legislation that would require the SEC to make public the records behind company profit calculations. This will help protect the so-called owners of the corporation, the stockholders. And at the very least, the record should be made freely available to the Government agencies against whom claims are being made.

Senator PROXMIRE. That answers the question.

Admiral RICKOVER. Don't you have something to do with the SEC, Mr. Chairman?

Senator PROXMIRE. Yes, they are under the jurisdiction of the Banking Committee that usually meets in this room.

The claims problem demonstrates that there is something wrong with the way the Navy procures ships. What do you think the problem is, and what is its solution?

## LACK OF MANNING AND POOR PRODUCTIVITY

Admiral RICKOVER. The Navy has deliberately decided to go to private shipbuilders for new ships. I think that is a good idea. Navy yards do primarily repair work which private shipbuilders also do. The current problem plaguing some private shipbuilders is lack of manning and poor productivity. In this situation, shipbuilders naturally try to find a source of money to cover their increased costs.

#### INSUFFICIENT PEOPLE TO HANDLE CLAIMS

You asked what is wrong with Navy shipbuilding practices? The main deficiency is that there are insufficient people to handle the shipbuilding claims problem. The Navy is limited in the number of people it can have at Navy shipyards. It is limited in the number of people it can have at headquarters to follow the legal work. Therefore, the technical people are the only ones available to look at these claims. It is difficult to review and document the claims. Yet, if the Navy is permitted, it will do the job, regardless of what it takes.

#### NAVY NEEDS OUTSIDE COUNSEL

The Navy should be allowed to hire outside counsel. That provision is contained in the present House Armed Services Committee authorization bill. Currently the Navy spurns outside legal assistance.

The Navy is not even able to stop people leaving claims review positions in the Navy to work for outside claims lawyers that prosecute the same claims against the Navy.

I wrote a letter to the ABA, the American Bar Association, regarding the matter of lawyers switching sides. The ABA stated that it was unethical for them to do so unless the Government waives its rights in a specific case. I later found out that claims lawyers as well as the attorney in the Department of Justice, who had previously ruled against the Navy, were the driving forces behind this opinion.

This is what the Navy is up against. The Navy needs to get some help from the rest of the Government.

#### NAVY NEEDS 5-YEAR SHIPBUILDING PROGRAM

Another problem the Navy has is that the shipbuilding program is changed annually. If the Navy were able to get a 5-year shipbuilding program it could do a lot better planning. It cannot do it now.

#### MANY CLAIMS MAY NOT BE JUSTIFIED

Senator PROXMIER. Admiral, I want to thank you very, very much. You have been a superb witness, as you always are. And I might point out that I think you make a devastatingly powerful case that the Congress should be very careful about simply approving forthwith \$747 million in claims being paid, as the Defense Department has proposed without auditing, and analyzing, and evaluating those claims to see if they are justified. The case that you have made is that many of these claims may well not be justified, and we will be paying money without justification, the taxpayer's money, and a great deal of it.

Admiral RICKOVER. Sir, the \$747 million does not constitute a complete settlement of outstanding claims.

Senator PROXMIER. I might point out that the Deputy Secretary of Defense, Mr. Clements, will testify before this subcommittee on June 25, in about 2 weeks. And we will be questioning him on the basis of the fine record you have made. And I thank you very much.

Admiral RICKOVER. Thank you, sir, for your kindness.



Senator PROXMIRE. Incidentally, we have other questions that we would like to submit to you for answers, to be included in the record, that you may reply to in writing.

Admiral RICKOVER. Thank you, sir. I will do so.

[The questions and answers referred to follow:]

RESPONSE OF ADM. H. G. RICKOVER TO ADDITIONAL WRITTEN QUESTIONS POSED BY SENATOR PROXMIRE

Senator PROXMIRE. What is the status of the Navy review of the Newport News claims?

STATUS OF NAVY REVIEWS OF NEWPORT NEWS CLAIMS

Admiral RICKOVER. The Navy has completed its review of the first claim under the DLGN 26/37 contract. While it would not be appropriate to disclose the exact amount the Navy considers that this claim is worth, it is only a small fraction of the claimed amount of \$69 million. The Navy cannot settle this claim, however, until it is determined to what extent the second large claim on this contract impacts the first.

The Navy has also completed its review of a portion of the first claim under the SSN 688 contracts. This was done to enable the Navy to make a provisional payment against this claim. Again, the Navy has determined that the portion of the claim that has been reviewed is worth only a small fraction of the claimed amount for that portion. This provisional payment was also held up to determine the impact of the second claim submitted under these contracts.

The Navy has not completed its review of the other Newport News claims.

Senator PROXMIRE. You have recommended that if the Public Law 85-804 approach is used, that the Navy should acquire title to the shipyard as a condition of a Public Law 85-804 settlement. Would you comment on this recommendation?

NAVY SHOULD PURCHASE SHIPYARDS IN SOME INSTANCES

Admiral RICKOVER. I believe that government should rely, whenever possible, on private industry to provide the facilities and personnel needed for defense work. I am not eager to see the government buy out the shipyards as long as they do not take advantage of the Navy's dependence on their facilities to break their contracts. Much of the impetus for the decision to provide shipbuilders extra-contractual relief stems from statements that without such relief certain essential shipbuilders will stop work on existing contracts and will refuse to take future Navy work. If essential contractors can void their contracts by refusing to perform work until the Navy meets its latest terms, the Navy is in an untenable position. In those circumstances the Navy would be better off to buy out the shipbuilders interest in the shipyard and have it operated by private industry as a government-owned, contractor-operated plant. In that manner, the shipbuilders could get the guaranteed profit they want, the Navy would be assured of a continued source of supply, and perhaps government and contractor personnel could then devote their efforts to shipbuilding, not to fighting claims.

The government-owned, contractor-operated method of operations is widely used in defense contracting. The Army, the Air Force and the Navy have built major portions of weapon systems in such plants.

Senator PROXMIRE. You have recommended that the Navy enforce its shipbuilding contracts and that claims be settled in accordance with prescribed procedures. What problems do you envision if the Public Law 85-804 approach is used?

PROBLEMS WITH USE OF PL 85-804

Admiral RICKOVER. There are many potential problems with the use of Public Law 85-804. While I believe they are recognized and are being worked on by the Department of Defense team assigned to implement the Public Law 85-804 decision there are no readily apparent answers. Some of the obvious questions are:

(a) How can the Government determine what a fair and equitable settlement would be without a thorough review and analysis of each claim?

(b) How can the need to by-pass normal settlement procedures be justified when shipbuilders themselves have elected to submit large, after-the-fact, get-

well claims rather than pricing out and settling individual items of government-responsibility as they occur?

(c) How can the need for immediate extra-contractual relief be justified in cases where shipbuilders or their parent conglomerates are reporting record profits?

(d) How can Public Law 85-804 relief be granted in the absence of a formal request and documentation as to the need for such relief from the contractors concerned?

(e) How can the use of Public Law 85-804 be justified in this case without undermining the requirement contained in the Armed Services Procurement Regulation that all other legal or administrative remedies must first be exhausted?

(f) How can settlements be reached that do not encourage future claims?

(g) How can settlements be reached which will not encourage other government contractors and subcontractors to seek extra-contractual relief or not encourage them to adopt a practice of trying to improve their financial position by submitting massive claims?

(h) How can the government maintain effective business relationships if contractors can conclude that the government will not enforce its contracts? Senator PROXMIRE. Some shipbuilders, particularly Newport News, have complained that the Navy takes too long to settle claims. Why is the claims review process such a lengthy one?

#### CLAIMS REVIEW PROCESS

Admiral RICKOVER. Each element of a claim must be subjected to a detailed legal, technical and contractual review to determine (1) if the contractor is legally entitled to a contract adjustment for that claim element, and (2) the amount of any adjustment. Because current Navy legal support is inadequate, the burden of claims review falls upon technical people who must at the same time perform their primary duties. This further extends the time required to properly review claims.

In the case of Newport News the problem is further exacerbated because the claims themselves are massive, consisting of 64 volumes. Further, Newport News has refused to certify that the claims are current, complete and accurate even though the Navy is required to obtain such a certification by Navy Procurement Directives. Also, Newport News typically does not show a relationship in the claims between alleged government actions and resultant increased cost or delays. The claims simply list a series of alleged government actions and then contend that the government is responsible for all increased cost and delays. Finally, Newport News continually diverts government effort from the claims review process by taking actions such as refusing to pre-price change orders and threatening to stop work that requires government personnel to drop what they are doing to attempt to address these new issues.

Thus, even though the claims review process must be relatively lengthy to insure that the taxpayer's interests are properly protected, the current time periods required for review could be shortened considerably if Newport News assisted by submitting claims that related cause and effect and certified the claims.

Senator PROXMIRE. Some officials in the Department of Defense have made statements to the effect that Navy shipbuilding contracts were inequitable and did not adequately protect shipbuilders against the effects of inflation. What are your views on that?

#### ARE SHIPBUILDING CONTRACTS INEQUITABLE?

Admiral RICKOVER. I do not consider that Navy shipbuilding contracts have been either unfair or inequitable in their coverage of escalation. In fact, shipbuilders are better protected from the effects of inflation than are other fixed priced defense contractors. There are several reasons for this. First, shipbuilders receive escalation payments based on changes in indices that the Bureau of Labor Statistics prepares especially for the shipbuilding industry. Second, some shipbuilders also include additional contingencies in their bid when they anticipate that the impact of inflation will be greater than the amount that they will be paid under the escalation provisions of the contract. Third, the price of contract changes for extra work or for government-responsible delay also include contingencies for escalation. Finally, to the extent the shipbuilder incurs costs due

to inflation that are greater than is covered by the escalation clauses of the contract or the contingencies included in the contract price, the shipbuilder can recover most of these excess costs, under the cost sharing provision of the contract up to a ceiling price—even if the excess is not due to government-responsible causes. It should be noted that under these escalation provisions the shipbuilder is protected regardless of the rate of inflation since the indices determining the escalation payment reflect the actual amount of inflation in the economy. Shipbuilders agreed to accept the risk for cost increases beyond the contract ceiling price, including the effects of inflation, unless, under the terms of their contracts, responsibility rested with the Government. This arrangement insures that the shipbuilders are well protected as long as they perform within the contract delivery and ceiling price. I consider this arrangement as both fair and equitable.

Apparently the argument that Navy shipbuilding contracts do not adequately protect against the effects of inflation was generated within the government. Even Newport News has not made this allegation in its claims.

PREPARED STATEMENT OF ADM. H. G. RICKOVER<sup>1</sup>

Mr. Chairman, you have requested that I testify about shipbuilding claims and possible violations of fraud or false claims statutes contained in claims against the Navy. The views I express are my own, and not necessarily those of the Navy.

The claims problem is not new. There were shipbuilding claims against the Navy even before the *Monitor* and *Merrimack*. In fact, one ship of the *Monitor* class was the subject of a shipbuilding claim.

For many years there have been problems in the way shipbuilding claims have been handled. In 1958, for example, the General Accounting Office reported that claims submitted by shipbuilders were vague and lacked adequate documentation; that Navy claims evaluations were inconclusive; and that claims had been settled without sufficient data to demonstrate Government responsibility.

Until the late 1960's, these claims tended to be small as compared to the amounts of today. For the most part shipbuilders honored the terms of their contracts and confined their claims to legitimate items. During that period one of the largest claim settlements that I recall involved an \$8 million Electric Boat claim for a one-year Government-responsible delay in construction of a submarine. The contractor confined his claim largely to Government-responsible actions, and the claim was settled for about \$7 million. At the time, \$7 million was a large claim settlement; but, by today's standards, a \$7 million claim is very small.

It used to be that, if a shipbuilder lost money on a contract, company officials would accept that fact and try to do better the next time. However, the Navy's settlement of the huge Todd Shipbuilding claim in March 1969 introduced a new era in shipbuilding claims.

This claim settlement was the first involving large so-called omnibus shipbuilding claims. Such claims—sometimes called "total cost" claims—do not show a cause-and-effect relationship between alleged Government-responsible actions and the amount claimed. In essence, a shipbuilder, when faced with a projected

<sup>1</sup> This statement reflects the views of the author and does not necessarily reflect the views of the Secretary of the Navy or the Department of the Navy.

cost overrun, makes a large claim based on general allegations that the Government is at fault and therefore should reimburse the shipbuilder for all his costs plus his desired profit—regardless of his own performance.

These large shipbuilding claims seem to be "built backwards." That is, the shipbuilder estimates how much he wants and then assigns people to make up a claim that will yield that amount. Here is an extract from a report of one shipbuilder's internal company meeting in which his people were instructed how to prepare a large shipbuilding claim;

"Division Planning will provide an estimate of man-hours to complete the contract. This estimate will be compared with the original of total manufacturing man-hours to do the contract, and the difference will be justified in a saleable manner.

\* \* \* \* \*

"Mr. X stated that (the company) would have to use that information and data which would sell. Any data which would not sell would have to be omitted." If claims prepared in this manner are paid independent of their legal merits, the effect is to convert fixed-price contracts into cost-plus contracts.

I am not certain who invented the omnibus claim concept and peddled it as a way to get out of potentially unprofitable contracts. But the two Washington law firms I most readily identify with this method of doing business are headed by a former Navy General Counsel and a former Chairman of the Defense Department's Armed Services Board of Contract Appeals. I have contempt for federal employees who acquaint themselves with the inner workings of Government and its vulnerabilities, only to switch sides later and profit personally from their inside information.

The Todd claims exceeded \$114 million and were settled for \$96.5 million—about 84 cents on the dollar. In an April 1971 report, the General Accounting Office was harshly critical of the Todd Settlement, stating:

"In our opinion, the material submitted in the contractor's proposal did not adequately demonstrate that the amounts claimed were caused entirely by acts of the Government and not possibly caused by the contractor's inefficiencies and/or unrealistically low bid.

"We believe that the Department of Defense should take the necessary steps to ensure that settlements of claims are supported by factual and reliable data relating the specific amount claimed to acts of the Government.

"We believe that in the absence of such information, there is not sufficient assurance that the settlements made were fair and reasonable. The practices presently being followed in settling claims could lead to an erosion of the contractor's incentive to control costs with a corresponding decline in the effectiveness of firm-fixed-price contracting."

These latter remarks by the GAO were prophetic.

Heartened by the greatly inflated Todd settlement, many private shipbuilders and their claims lawyers seized upon vague, unsubstantiated claims as a means of getting well on unprofitable contracts. As a result, the Navy was inundated with omnibus shipbuilding claims. In 1968, outstanding claims totaled \$66 million; in 1971, \$603 million; in 1974, \$1.3 billion; today, \$2.7 billion.

In their campaign to have their claims paid, shipbuilders place the blame entirely on the Government. They frequently attribute their problems to inflation, faulty defense procurement policies, improper administration of shipbuilding contracts by the Navy, and a host of other reasons, all of which they contend are beyond their control. Shipbuilder inefficiencies, mismanagement, low productivity, and other problems are rarely, if ever, acknowledged in the claims or in public pronouncements by company officials.

Most shipbuilders keep their claims vague and general. In that way they can keep increasing the amount of their claims—as many of them have done—if they encounter further cost overruns.

Some officials of shipbuilding companies would have senior Government officials believe that the Government has an obligation to make their companies profitable, regardless of performance. When Government officials fall for this line of reasoning and make claim settlements in excess of amounts legally owed, they only encourage inefficiency and mismanagement. They also undermine the integrity of Government contracts, making them useless as a vehicle for conducting future business.

The takeover of all our major shipyards by conglomerates has made the situation worse. Conglomerates are staffed with legal, financial, and contract experts who tend to view shipyard operations as a financial game. Cash flow,

public relations, lobbying, and "creative accounting" are their specialty. Under the conglomerate philosophy, "Managers" are interchangeable and results are measured strictly in financial terms. This tends to divert management attention away from the details of building ships. In general, corporate officials are not interested in building ships; they are interested in financial figures.

Shipbuilders should make a fair profit if their performance warrants it. That is the basis on which fixed-price incentive-fee ship construction contracts are negotiated. But in my opinion it is wrong for corporate officials to use claims, public relations, and political clout to pass on to the Government the results of their own poor management.

I have testified repeatedly about deficiencies in nearly all aspects of shipyard operations: ineffective cost controls and cost reporting systems; costs not related to progress in a manner that identifies potential overruns in time to take corrective action; subcontract procurements not managed in a business-like manner; excessive sole source subcontract procurements; superficial negotiations of subcontracts; poor productivity, including widespread idleness and loafing; inadequate material controls; overtime not properly controlled; ineffective internal audit systems; and excessive overhead costs. In the current environment, however, it is apparently easier to let costs come out where they will and submit claims than it is to establish better controls over the work.

In recent years, both Newport News and Electric Boat have encountered serious productivity problems as they increased their workforces. Both yards have had trouble training and managing an expanding work force. Their productivity problems delayed ships and caused higher costs. But to read the claims submitted by them, one could only conclude that all delays and cost overruns were the Government's fault. This is what I resent—the dishonesty of those who pursue the claims business for a profit, and the unfair burden these invalid claims place on the Government employees who must refute them, and on the taxpayer.

Some shipbuilders, egged on by corporate officials and high-priced claims lawyers, have become proficient in developing, assembling, and prosecuting claims and have the trained specialists to do so. Sometimes the impetus for a claim comes from firms that specialize in this work. In fact, a whole claims industry is sprouting. Here is a promotional letter one company I deal with received from one of these claims specialists:

"Dear Sir: We are specialists in all phases of Government and commercial contracting. Our specialty is the ability to obtain additional funds from fixed price customers. This is done via the constructive change basis, which means that the entire transaction is evaluated from the date of the order or contract to the date of actual delivery. All the extras, such as extra work performance, or delays, or interruptions are transposed into dollars and thus presented to the customer for reimbursement.

"This essentially is collecting for delivering something beyond the bargain. The obvious changes are easy enough, but the subtle or hidden changes that are not apparent; either to buyer or seller are the ones that we can transpose into a dollar recovery.

"Our credentials are available for your review, and our references range from the smallest companies to those appearing on the Fortune 500. A meeting may be beneficial."

The above letter is from a small time operator. The Washington law firms that specialize in claims against the Government are more sophisticated in their marketing efforts. They make companies aware of their services through seminars and publications on Government contracts and claims. At billing rates of up to \$100 or more an hour, claims lawyers will develop and promote legal theories to blame the Government for any cost overruns their client incurs, or to contest the validity of a contract.

Many practitioners of the claims trade seem to specialize in obfuscation and harassment. If fact or the law is not with them in a case, some claims lawyers will harass the Government with voluminous claims, unsupported allegations, Freedom of Information Act requests, interrogatories, depositions, and the like. By generating mountains of paper and broadening issues, they hope to bog down Government officials or courts to the point that their clients can negotiate settlements independent of the claim's legal merits.

The strength of the claims lawyers lies in their ability to delay and harass the Government. They well know that with the high rate of personnel turnover in Government, time works to their advantage. They also know that the Government cannot assign anywhere near equivalent resources to the case, and that eventually they can wear the Government down.

Lawyers are supposed to be officers of the court charged with responsibility of searching out the truth. My experience has been that most claims lawyers try to hide or distort the truth.

I now have first-hand experience on how a law firm handles contract disputes. Through the month of December, I have been subjected to a deposition conducted by a Washington law firm that Newport News has retained in connection with the lawsuit between the U.S. Government and Newport News regarding the nuclear cruiser CGN41. The Government contends that the Navy has a valid contract with Newport News for construction of the CGN41. The company, seeking to reprice the contract, has contended it is invalid. But the issue of whether or not there is a valid contract may never be heard in court because Newport News succeeded in getting the District Court to dismiss the case without ever addressing that issue.

The case is now before the Court of Appeals. Since the District Court decision may be reversed, Newport News obtained a District Court order requiring my deposition. This deposition has been an eye-opener for me. Day after day, I face as many as eight experienced lawyers. Three of them take turns interrogating me and the others busily confer with each other and write and pass notes. For over 35 hours so far my inquisitors have barraged me with questions about dates, places, letters, conversations and events spanning a period of six years. They seem incredulous because I do not remember documents written years ago even though I have pointed out to them that I have probably read close to three-quarters of a million documents and signed 50,000 in this period.

Mr. Chairman, can you imagine anyone expecting you to recall the details of every document you have signed in the past six years; who told you each piece of information in it; exactly what you meant at the time; what you may have said to people about it; and so forth? If I were to remember such information I would have no room in my mind to handle today's problems and plan for the future. Besides, I learned long ago that a written record is much more reliable than memory.

I have no idea how much longer my inquisitors will prolong this deposition. But I think any objective observer reading the deposition record must conclude that there can be no legitimate purpose in dragging this deposition out. As far as I can see, very few of the questions I have been asked have any discernable relationship to whether or not there is a valid CGN41 contract. I can only presume that depositions of this sort are designed to consume time and discourage Government employees from ever standing up to a large contractor or from having the temerity to put the interests of the taxpayers above those of a large conglomerate.

The shipbuilding industry has a lobby group—the Shipbuilders Council of America—which provides a forum for arriving at industry-wide positions. The theme of the major shipbuilders is the same—that shipbuilding claims must be the Navy's fault since major shipbuilders have been experiencing cost overruns. They blame Navy procurement policies and they blame Navy personnel for allegedly failing to promote "good relations" with the shipbuilder.

The ultimate leverage these companies have is their control over the facilities needed to build ships the Navy vitally needs. Because partially completed ships cannot be transferred from one shipyard to another, they are sometimes held hostage in contract disputes. Both Litton and Newport News have threatened work stoppages thus forcing the Navy into court in order to require them to continue work. But Federal judges are not able to hear complex shipbuilding contract disputes and render judgments in a short time. In the two cases mentioned, the Navy was ordered to continue to pay the contractor's incurred costs pending resolution of the dispute. This is what both shipbuilders wanted.

Within the Defense Department, contract disputes have been made more difficult by the involvement of senior officials in matters that their subordinates should be handling. Many large and politically influential defense contractors have ready access to Defense Department and Navy officials throughout the chain of command. They use these contacts to their advantage. I suspect that most contractor officials prefer to deal with senior Defense officials because they are not as familiar with contractual details as the working level officials and therefore tend to be more sympathetic to contractor complaints.

In the past there have been far too many private meetings between senior Government and contractor officials on matters involving claims or contract disputes. These meetings undermine the efforts of those responsible for handling contract matters—particularly when they are not in attendance. At times, those responsible have not been informed of the results of the meeting, or even that they were held.

There has been a high turnover of senior Navy and Defense officials. Each new arrival, although not acquainted with details of the claims, wants to apply his own "magic formula" to resolve the problem. Most of these attempts have been futile. Some have actually exacerbated the problem. Here are some ways various officials have tried to deal with the shipbuilding claims problem during the past several years:

In 1971, the then Commander, Naval Ship Systems Command, personally negotiated with officials of Lockheed Corporation and tentatively agreed to pay the company \$62 million in settlement of shipbuilding claims totaling about \$160 million. This was the infamous "Golden Handshake" made without the benefit of a legal, technical, and financial audit of the claim.

Based on a subsequent audit of the claim, the Navy's contracting officer determined that the Navy owned only about \$7 million, not \$62 million. Lockheed appealed to the Armed Services Board of Contract Appeals. The Board, without reviewing the merits of the Lockheed claims, ordered the Navy to pay the \$62 million on the basis that Deputy Secretary of Defense Packard had made statements which led the company to believe it would be paid that amount.

In October 1969, following the Packard settlement, the Navy established a Contract Claims Control and Surveillance Group, to assure that major claims submitted by Navy contractors would receive an adequate and complete technical, legal and financial review. This Group disapproved some major claims settlements and was subsequently disestablished.

In 1976, responsibility for resolving claims was assigned to a General Board consisting of Navy Admirals and a Claims Board comprised of "procurement executives" of the Naval Systems Commands.

By 1975, the Navy reported that the claims backlog had been drastically reduced as a result of claim settlements and that the problem was well in hand. However, in order to make the claim statistics look better, some Navy officials had resorted to semantic games. They relabeled several large claims "Requests for Equitable Adjustment." When the dollar value of these so-called Requests for Equitable Adjustment was added to claims in-house and appeals before the Armed Services Board of Contract Appeals, the Navy's total claims backlog was actually \$1.5 billion, not \$300 million as the Navy was then reporting.

In April 1976, former Deputy Secretary of Defense Clements announced he would try to dispose of the Navy's \$1.3 billion backlog of shipbuilding claims by providing extra-contractual relief under Public Law 85-804. The plan was to involve Litton, Tenneco, General Dynamics, and National Steel. This effort was abandoned when neither Litton nor Newport News would accept the maximum figure Mr. Clements felt he could offer.

In July 1976, following collapse of the Public Law 85-804 plan, Mr. Clements approved the establishment of an independent, three-man Navy Claims Settlement Board to evaluate shipbuilding claims and try to settle them on their merits. A directive was issued to the effect that no one be permitted to interfere with or give unsolicited advice to the Board. Initially, the Board was assigned all Newport News' shipbuilding claims, which totaled \$394 million. In March 1977, the Board was also assigned the Electric Boat SSN 688 Class claim for \$544 million.

The Board has settled one of the Newport News' claims, the one against the contract for construction of the nuclear cruisers *USS California* (CGN 36) and *USS South Carolina* (CGN 37). This \$151 million claim was settled for \$44.3 million—less than one-third the amount claimed. The Board is still negotiating with Newport News to resolve the remaining Newport News' claims.

On 1 December 1977, just as the Navy Claims Settlement Board was about to complete its evaluation of the Electric Boat claim, the Chief of Naval Material directed that the Board terminate its efforts on that claim, and furnish the data they had thus far developed to a special Steering Group under the Assistant Secretary of the Navy.

Grossly inflated claims are becoming accepted as standard operating procedure. Unless something is done to enforce the various Federal Statutes regarding fraud and false claims, we face the prospect of being harassed by such claims indefinitely.

The problem of inflated claims exists at all three private shipbuilders with whom I have dealt: Ingalls Shipbuilding Division of Litton Industries; Newport News Shipbuilding and Dry Dock Company, a subsidiary of Tenneco; and Electric Boat Division of General Dynamics Corporation. In prior hearings I have pointed out the problems I encountered in Ingalls' \$40 million claim on their contract for construction of the SSN's 680, 682, and 683. Each time Government analysts refuted a portion of this claim, Litton revised the claim and resubmitted it.



Between November, 1970, and July, 1972, when a Contracting Officer's decision was issued, Litton had submitted five different versions of the claim—but the amount of the claim always remained about the same. The claim was revised a sixth time, in the appeal to the Armed Services Board of Contract Appeals (ASBCA) and a seventh during the Board's hearing. Each revision required extensive analysis and evaluation by Government personnel. After a four-month hearing on the matter and lengthy deliberation, the ASBCA—obviously bogged down by the mass of data—awarded Ingalls roughly half the amount claimed.

After reviewing the Litton submarine claim, I reported to my superiors apparent irregularities in the claim. I recommended that the claim be investigated for possible violation of false claims statutes. An 18-month independent review by the Navy came to a similar conclusion and the case was referred to the Department of Justice. A subsequent 2½-year investigation by the Justice Department resulted in Litton being indicted in Federal Court for violation of Federal statutes prohibiting the submission of false claims. However, a Federal judge dismissed the indictment without hearing the case, citing an alleged procedural irregularity. The Justice Department has appealed the judge's decision.

In June, 1976, I testified at length before this committee about Newport News' claims. I cited many examples of grossly exaggerated and inflated items in the claim, including \$97 million for "Parkinson's Law" and \$32 million for "Navy Recruiting Practices." The record of the June, 1976, hearings explains these and other claim items in detail.

The one claim the Navy Claims Settlement Board has been able to settle shows that the Newport News' claims are greatly inflated. In February, 1977, the Navy Claims Settlement Board was able to settle the \$151 million CGN 36 and 37 claim for \$44.3 million—only 29 percent of the total amount claimed. This settlement resulted in Newport News recovering all of its costs and a profit despite: (i) the very significant manpower problems Newport News experienced in building these ships; (ii) the 18-month delay in delivery of both ships from the original contract delivery dates during a period of double digit inflation; and (iii) all the difficulties encountered by Newport News during the construction of these ships regardless of cause or responsibility.

Newport News officials contend that it is wrong to characterize this settlement as "29 cents on the dollar." It is true that even if the claim had been determined to be completely valid and the contract ceiling price increased by \$151 million, as the company requested in its claim, Newport News would not have actually recovered \$151 million in cash. This is due to cost sharing provisions in the contract. However, the Navy had to review every element of the \$151 million increase in ceiling price claimed in order to determine how much was valid and how much the company would be paid. Based on this review, the Board found that over 70 percent of the claim was invalid.

I have no way of knowing what proportion of the remaining \$743 million of Newport News' claims are valid. The Navy Claims Settlement Board is still considering them. However, in accordance with Naval directives, I have submitted to appropriate Naval authorities four reports on Newport News' claim items under my technical cognizance which I believe warrant investigation for possible violation of fraud or false claims statutes. Since my review of claim items under my technical cognizance is incomplete, there may be more. Further, I understand that other people reviewing the claims have reported additional claim items for investigation.

A similar situation exists with regard to the \$544 million claim submitted by Electric Boat under two contracts for construction of 18 SSN 688 Class submarines. The claim was submitted on December 1, 1976. The General Manager of Electric Boat certified this claim as "current, complete and accurate." He also certified the claim as accurately reflecting "the material damages or contract adjustments for which the Navy is allegedly liable."

The Electric Boat claim cites numerous Government actions which the company alleges caused all delays and increased costs experienced on the SSN 688 Class ships at Electric Boat. Yet, there were many contractor-responsible problems at Electric Boat which adversely affected production. These problems include a shortage of skilled manpower, poor productivity, start-up of new facilities, and a five-month labor strike.

Based on a review of claim elements under my technical cognizance, I have submitted to the appropriate Naval authorities a report on 18 Electric Boat claim elements which I believe should be investigated for possible violation of fraud or false claim statutes.

More than six months have elapsed since I submitted my first report regarding possible fraud in the Newport News' claims. As I understand it, two attorneys in the office of the Navy General Counsel have been given the task, along with their other duties, of reviewing these reports and of determining whether the claims should be forwarded to the Justice Department for formal investigation.

Senior Navy and Defense officials seem reluctant to investigate grossly inflated claims by shipbuilders, some of which involve hundreds of millions of dollars. This reluctance could stem from several reasons. Many of these officials came from industry or from law firms and may see nothing wrong with what these companies are doing to try to enhance their profits. Some may be reluctant to pursue the false claims issue, for fear of being criticized for not promoting "good relations" with contractors, or for scuttling a potential claims settlement, or for not seeing the "big picture." Moreover, corporations can bring great pressure to bear and cause delays so that it might take years to complete an investigation.

Large shipbuilding claims can be important to conglomerates as a means to defer or perhaps avoid having to report losses to their stockholders. The profit projections they use assume a given recovery under the claims. To the extent the figure assumed is greater than the amount the Navy determines it legally owes, the company has a strong incentive to avoid settlement through whatever means are available, including lengthy litigation, while it tries to pressure the Navy into a higher settlement offer.

Inflated claims also increase a shipbuilder's chances of getting paid more than he is contractually owed, or getting a lucrative settlement based on the Government's assessment of "litigative risk" and "litigative cost." "Litigative risk" is the amount Navy lawyers include in claims settlement offers to account for the possibility of losing in the Armed Services Board of Contract Appeals or in court. "Litigative cost" is the amount the Government estimates it will spend to defend itself before the Board or in court. The larger and more complex a claim is, the more costly it is for the Government to litigate and the greater the risk that a shipbuilder, with his high-priced lawyers, can obfuscate the issues and win a favorable decision in litigation. Of course, "litigative risk" and "litigative cost" are highly subjective assessments which can be used to pay off claims while ostensibly settling them only on their so-called "legal" merits.

If Federal statutes covering fraud and false claims are not enforced, contractors will continue inflating their claims. Under these conditions the Government will continue to waste millions of dollars evaluating highly inflated claims which have little or no substance.

In my opinion, the Defense Department and the Justice Department should strictly enforce the False Claims Act and criminal statutes including those pertaining to fraud. Prior to settling a claim, the Contracting Officer should be required to certify that no evidence of fraud or false claims has been uncovered in his review. If such an affidavit cannot be made, all evidence discovered should be thoroughly investigated for possible fraud, with the assistance of the Justice Department.

I have testified previously and at length regarding the need for other improvements in the area of shipbuilding claims. These recommendations are as follows:

1. Authorize the Navy to hire outside counsel and such other assistance as is necessary to help with claims and claims-related matters. These lawyers should be authorized to perform any services in connection with these claims except representing the Government in court, which is properly the function of the Justice Department. We are not presently getting adequate legal support from the Office of Navy General Counsel.
2. Develop a permanent group of outside claims specialists including technical personnel, procurement experts, and attorneys to review and analyze major claims, do legal research, prepare legal documents, interview witnesses, and help prepare the Government's defense under the direction of Government personnel. Presently, the burden of claims analysis is being borne by Government personnel to the detriment of their assigned responsibilities.
3. Require as a matter of law that prior to evaluation of any claim, the Government must obtain and the contractor must submit a signed certificate from a senior contractor official that the claim and its supporting data are current, complete, and accurate. There is presently a Navy requirement to this effect, but it is not always enforced.
4. Costs incurred by the Navy in evaluation of invalid portions of claims should be set off against the amount determined to be legitimately owned. This should discourage shipbuilders from using frivolous items in their claims.

5. Prohibit contractors from changing their claim after it has been finally submitted to the Contracting Officer. Following review by the Government, the contractors should be given an opportunity to furnish additional information needed to support the claim where the Government review indicates weakness. However, new theories of entitlement and new claims submissions should be barred. Often the Navy's claims analysis effort is frustrated by the constant revising of claims.

6. Require litigants and their attorneys to disclose at the outset of any commercial litigation all facts, whether favorable or unfavorable, relating to their lawsuit. In filing a case before the courts or administrative boards, the plaintiff and his attorneys should be required to sign a stringent certificate that the information submitted in support thereof is current, complete, and accurate. Criminal penalties and disbarment proceedings should be invoked for false certifications. Under our present system, some shipbuilders contend that they are not required to disclose facts which would tend to undermine their claims.

7. Change the operation of the Armed Services Board of Contract Appeals as follows:

a. Give the Government the same right as contractors to appeal adverse decisions of the Armed Services Board of Contract Appeals. Presently, the Government has no recourse in the case of a bad Board decision or one in which the Board has exceeded its authority.

b. Until such right of appeal to the Courts is granted, the Department of Defense should provide for internal review of Armed Services Board of Contract Appeals decisions. Particular attention should be paid to questions of whether the Board is exceeding its authority.

c. Make any material obtained by contractors under the Freedom of Information Act, which is not obtainable by discovery proceedings, inadmissible against the Government before any Contract Board of Appeals or in any litigation. As it now stands, contractors can circumvent Board or Court restrictions on discovery by using the Freedom of Information Act. The Government has no such comparable rights.

d. Discontinue trials *de novo* before the Armed Services Board of Contract Appeals. Only evidence submitted to the Contracting Officer should be allowed before the Armed Services Board of Contract Appeals. Today a shipbuilder can present the Board an entirely different case than he has presented to the Contracting Officer.

e. Promulgate a Board rule that law firms who violate the ABA Code of Professional Responsibility are not allowed to appear before the Board. Require that no one in the Defense Department shall do business with law firms which are in violation of the ABA Code of Professional Responsibility. At present there seems to be no effort by the Department of Defense to ensure that attorneys practicing before the Board comply with the ABA Code.

The above are my recommendations for improving the handling of contract claims. I recognize that some shipbuilders stand to lose considerable sums of money on their Navy shipbuilding contracts if their contracts are enforced. So be it. That is how free enterprise is supposed to work. Some of these losses result from mismanagement; some from unanticipated events which the contractor may not have foreseen, but which under the terms of the contract are not the legal liability of the United States Government. But, the point is that if shipbuilders are excused from their contracts, other Defense contractors will want similar treatment when they experience losses on their Government contracts. I view the problem this way: if contracts are not to be enforced, there is no sense negotiating them.

There has been a tendency for some of our transient Defense and Navy officials to believe the shipbuilding claims problem can be solved if only a way can be found to pay contractors their projected losses. These officials forget that if the Government had picked up the tab for such losses at any time in recent years, we would still have large claims today. For example, five years ago the Litton LHA claim was for about \$270 million. By 1976, the claim had grown to over \$500 million. Today, the Litton LHA claim totals over \$1 billion.

The Electric Boat SSN 688 Class claim is another example. In early 1970, the Navy settled all outstanding claims on the first SSN 688 Class submarine contract through May 20, 1975, for \$97 million. Then, General Dynamics officials offered the Navy a total claims release on both the first and second SSN 688 Class contracts for an additional \$53 million. The Navy could not accept that offer since it covered a claim which had not yet been presented.

Shortly after the \$97 million settlement, Deputy Secretary of Defense Clements introduced his plan to settle shipbuilding claims using Public Law 85-804. Under that plan, General Dynamics and the Defense Department reached tentative agreement to settle all remaining claims on the two SSN 688 Class contracts at Electric Boat for about \$170 million—almost \$120 million more than the company's previous settlement offer. As late as November, 1976, General Dynamics was still asking the Defense Department to accept the \$170 million Public Law 85-804 claims settlement.

By February 1977, however, the company's cost estimates for the SSN 688 Class construction program increased such that even a \$170 million settlement would have left the company deeply in the red. Moreover, costs have been over-running so that even if the Government had in February 1977, paid Electric Boat all losses being projected at that time, the company would again find itself in a substantial loss position by the 1st of December. Had the Government paid off the losses being projected on the 1st of December, the company would again find itself in a projected loss position as of today. To anyone considering a one-time payoff as a solution to the shipbuilding claims problem this should be a sobering thought.

In extraordinary cases where the Government decides to bail out a shipbuilder under Public Law 85-804, the Navy should ensure future access to the shipyard's production facilities. This could be done by buying the shipyard and having a contractor operate it as a Government-owned, Contractor-operated plant. Alternatively, the Navy might be able to enter into a long-term leasing arrangement so that if the contractor subsequently threatened to deny the facilities for Navy work, the Navy could make them available to another contractor.

My proposal to acquire certain shipyards and operate them as Government-owned, contractor-operated plants rather than just to reform contracts in response to shipbuilder threats has been criticized as an attempt to nationalize the shipyards, and as being contrary to the "free enterprise" system and defense procurement policies.

It is not, nor is it meant to be, a punitive measure, as some have suggested, nor a method for the Navy to run private shipyards. What I envision already exists throughout Defense procurement, in the Department of Energy, and elsewhere. In many places, the Government owns the production facilities and a contractor manages them for the Government. That is supposed to give the Government the benefits of private industry in cases where the Government owns the facilities.

Personally, I have always advocated relying on private industry to provide the facilities as well as the management expertise needed to fulfill the Government's needs. But if the Navy excuses a shipbuilder from a contract, it may again find itself faced with threats of work stoppage or refusals to take new business whenever the shipbuilder wants his contracts repriced.

Keep in mind I am only advocating the Government-owned, contractor-operated plant approach in cases where the Government decides it must bail out an essential shipbuilder. Moreover, I advocate the Government paying fair value for any shipyard it would acquire under these circumstances as part of the overall settlement so that the Government would not in any sense be confiscating private property.

The last minute withdrawal of the Electric Boat claim from the Navy Claims Settlement Board and a new agreement to defer litigation on the Litton contract dispute indicate the possibility of another effort to settle the claims at these two yards on other than their legal merits. As I have previously explained, I believe the Government should enforce its contracts. However, I also recognize that senior Defense officials have responsibilities far broader than my own and may, for their own reasons, arrive at different conclusions.

Defense officials have the authority to settle claims by granting extra-contractual relief under Public Law 85-804 whenever they determine this would facilitate national defense. In such cases, however, great care should be taken.

I believe that the following criteria should be applied in resolution of the claims on a basis other than strict legal entitlement:

The true financial condition of the corporation should be determined by Government audit. Corporate officials sometimes tend to exaggerate the severity of their financial situation in dealing with Government officials.

Attempts to reach an overall settlement of shipbuilding claims should in no way prejudice the Government's ability to enforce the terms and conditions of existing Government contracts.

The worth of the claims should be determined. The Navy, the Congress, and the public should know just how much of the amount claimed is valid.

The provision of extra-contractual relief should not in any way excuse a contractor from any legal liability he might have under Federal fraud or false claims statutes.

The settlement should not establish a precedent which the Navy would be unwilling to apply to other claims-troubled contractors if they are essential to national defense and if their continued ability to perform is in jeopardy.

The Government should try to get back, to the greatest extent possible, as much in value as it gives up.

The settlement should guarantee the future availability of facilities to the Navy well into the future—say 25-50 years, together with the contractual right to change contractors. In this way, the Navy will not continue to be vulnerable to threats of work stoppage whenever a shipbuilder encounters financial problems.

The settlement should specify how subcontracts should be handled. Shipbuilders should not be permitted to later bail out subcontractors at Government expense.

The settlement should constitute a one-time permanent solution at that shipyard so that the Government does not again find itself in the dilemma of having to choose between getting ships and enforcing contracts.

**Senator PROXMIRE.** Admiral, Electric Boat argues that their problems in constructing 688-class submarines are caused by the Government's design.

Has Newport News experienced problems to the same extent as Electric Boat constructing its 688-class submarines?

**Admiral RICKOVER.** Not to the same extent, sir, although they have problems, too. Newport News happens to be the design contractor for the SSN 688 class, under a completely separate contract.

We made a cost-plus contract with the Newport News design outfit for designing the ship and we made a separate contract with Newport News as a shipbuilding corporation.

However, if there are mistakes in the Government-furnished design made by Newport News, the Government is responsible.

Now, I will give you a specific answer to your question.

Electric Boat incurred substantially greater costs and expended many more man-hours in building their first 688-class submarines, than Newport News did in building the *Los Angeles*, the lead ship.

Current projections for the fourth 688-class ship at each shipyard indicate that Electric Boat is still substantially more costly than Newport News.

**Senator PROXMIRE.** As I understand it, the Electric Boat contends the Government made 30,000 drawing revisions.

That seems like an awful lot. Would you comment on that?

**Admiral RICKOVER.** That is a big red herring.

In the 688-class submarines, we expected from the very beginning about six changes per plan. Now, this number of changes, to somebody who doesn't understand it, sounds horrendous. But, the revision might just be a change of a word or a comma or something like that.

We generally figure on a new contract, the Navy does, changes will cause about a 5- to 6-percent increase in the cost of a ship.

**Senator PROXMIRE.** Were these changes at about the same proportion back in 1967?

**Admiral RICKOVER.** Yes.

**Senator PROXMIRE.** When the claims were about 2 percent of what they are now?

**Admiral RICKOVER.** Yes, just about the same.

Senator PROXMIRE. So, there has been no increase in changes that would account for this enormous increase in claims?

Admiral RICKOVER. No, sir. The same number per drawing. Changes altogether in the cost of a ship run about 5 percent, that is all. Yet you get claims which are almost the same amount as the original contract prices.

That in itself should show you what sort of game this is. The people who testify have statements prepared for them blaming the Government. Actually some probably give orders as I read to you in one case where the senior official says you go ahead and put in any claim—you can find until you cover the costs.

Senator PROXMIRE. Now, I know you have had experience with Government-owned, contractor-operated plants for the Department of Energy. You talked about that as kind of a yardstick, I guess.

What are the key features of this kind of an arrangement?

Admiral RICKOVER. The key feature is this: The Government owns the plant and the facilities and a commercial contractor operates it. It could be any big company. The Government pays the costs and the fees are pretty low.

I think that the fee we pay in our Energy Department laboratories is about 2.6 percent, something like that. We pay a very low fee. If we see an inefficiency, we have the right to stop it.

With our present shipbuilding contracts, we have no legal authority to do this. Absolutely none.

So, once we make a contract with a shipbuilder, as it has turned out in recent years, there is no incentive for management to worry about the yard. The shipyards are owned by a conglomerate. They go around looking for more business, more profit.

Senator PROXMIRE. So the Government-owned contractor-operated change would give you that authority that you need?

Admiral RICKOVER. Yes, sir. The Army and Air Force make extensive use of Government-owned contractor-operated plants in making their equipment, so GOCO shipyards would not be all that heretical.

Senator PROXMIRE. Now, would converting a shipyard to the Government-owned, contractor-operated operation solve the productivity problem that you mentioned, the shipyard's experience generally?

I realize there is some improvement but do you think it will be

Admiral RICKOVER. First, the Government would have to own all land and facilities. The private contractor, as I said, would then be paid a small fee under a cost reimbursement contract with the Government for operating it.

The contractor would be responsible for managing work, providing the personnel, organizing the plant, and so on, subject to review and approval by the Government.

If the contractor failed to perform well, the Government would have the right to replace him with another contractor to operate the facility. While the idea of Government-owned, contractor-operated shipyards is not a panacea for the current shipbuilding contract problems, it would guarantee the Navy access to the facilities and put an end to the claims business.

Do you get that point, Mr. Chairman? This would put an end to the claims business, allowing both the Navy and the shipbuilding personnel to concentrate on the difficult task of building ships.

You would be surprised at the large portion of the technical talent in the Navy that is employed in these claims problems. That is one reason we are going to fall behind in our technical work, so much of this work has to be done by engineers.

We are going to fall behind technically if we keep on with this charade that we are going through. It is just a moneymaking proposition for the shipbuilders and the technical people who are responsible for the military strength of this country have their expert time taken up in this sort of nonsense.

A GOCO shipyard would be better than negotiating a fixed price-type contract, analyzing inflated claims and then having to bail out the shipbuilder anyway just because he is incurring a loss for which the Government is not contractually responsible.

Shifting to a GOCO operation would not in itself solve the present productivity problems. However, it would facilitate their resolution, by allowing personnel to concentrate on shipbuilding instead of contractual financial problems.

It would also eliminate any incentive to try to manipulate the operation for financial advantage rather than producing ships efficiently. I mentioned to you the report we submit concerning shipyard efficiency. If it is a navy yard we can take action with that navy yard to improve the situation.

We cannot interfere with the private shipyard. They make a fixed-price contract with the thought they will perform efficiently but, actually, they do not care; not in this climate.

Senator PROXMIER. Do you think it would be feasible to have one or two shipyards operated on a GOCO, Government-owned, contractor-operated?

Admiral RICKOVER. Yes.

Senator PROXMIER. And the rest privately operated, could the Navy have a reliable procurement system that way?

Admiral RICKOVER. Yes, sir, it would not be necessary to make all shipyards GOCO unless we could do better—I am not in favor of converting privately owned shipyards to GOCO as long as the shipbuilders will honor their contracts. I am in favor, as I said previously, of pure capitalism which means integrity and true competitiveness. I am all in favor of that.

I would like to see these goals restored but I believe you find, all over the United States, more and more monopolies are being created by so-called capitalists who are destroying the capitalist system, which in my opinion has made this country great.

Any other system, communism or socialism, is an anathema to me because, ultimately, they must stifle initiative.

But, what difference is there today? We are adopting the Communist system in the way our industry is run. It is really Communistic. If we have some big organization in control, what is the Government's responsibility for protecting the entire people? The taxpayer is not aware of these problems. He never reads testimony on these esoteric matters.

He doesn't realize how he is being ripped off. And my reason is not only to save money. My reason is to get a better job done faster, it is not only a matter of money.

Senator PROXMIRE. Let me get back to that problem you had with your being harassed and held up and the unequal situation with the lawyers of the opposition questioning you at length.

You have testified in past years about the desirability of the Navy being able to hire outside counsel to assist in resolving the claims problems.

Do you still feel there is need for outside counsel?

Admiral RICKOVER. Absolutely, sir. Take the present case, the Justice Department within its own ability is doing an outstanding job in representing the United States. But they don't have enough lawyers to prepare a case the same way their opposition does.

The other lawyers spend days preparing and then I am deposed. After a number of them take plenty of time off to figure out what is the next entrapment question, I am hauled up before them. What we need is an analysis of the claims issue, we don't have the legal talent to do that.

Senator PROXMIRE. You previously testified to the effect that the Government doesn't always get a fair shake in the Armed Services Board of Contract Appeals. What is the basis for your conclusion?

Admiral RICKOVER. The contractor has a right to appeal from a decision of the Armed Services Board of Contract Appeals. The Government does not. However, there has been a recent case decided by the Court of Claims which appears that the Government may have a right. But the Armed Services Board of Contract Appeals is like any other agency, pretty soon they get a life of their own and they start making law.

They are making laws, once they decide a case with new legal principle. Like the laws of the Medes and Persians, it becomes forever engraved on a tablet of stone.

Senator PROXMIRE. I would like to ask you to respond to what seems to me might be some of the logical complaints that the shipbuilders themselves have. They complain, for example, that it takes too long to settle shipbuilding claims and that that is a sore point in their relationship with the Navy. What is your comment on that?

Admiral RICKOVER. I believe I cited, as an example the Electric Boat claim. Electric Boat has complained about the length of time required to settle claims, but their claims were submitted very long after the facts, years after the events happened. That is another sore point. As a result of prodding from Congress, the Navy instituted a system to deal with changes. They claim Government changes are largely responsible, but that is farfetched. As I said, changes on recent contracts are only about 5 percent.

We arranged a procedure which was accepted by the shipyards and is accepted by all contractors with whom I deal. Under this procedure, if the Navy wants to make a change we write a letter to the company and ask them what it will cost and they tell us.

If we consider it reasonable, we go ahead with the work and reimburse the contractor. That reimbursement includes the delay, if any, in the ships they are building.



If we don't think it reasonable, or if we think we could do it cheaper somewhere else, we don't proceed with the change.

Now, the shipbuilders' lawyers are attempting to prove this procedure is "illegal." I make an analogy. Suppose you want to order a new suit of clothes from the tailor. After he starts making it, you would like to have another button added.

You go in and talk with him and ask what it will cost and he tells you. If you don't like the price you tell him not to add the button.

If you accept the price, you pay the extra amount.

What is wrong with this concept? I know you are not a lawyer, sir, but you had to be reasonably intelligent to get elected to Congress. What do you think of that argument?

Now, the shipbuilders are saying many of the work items that they accepted for no increase in contract price several years ago are changes. These items are now the subject of multimillion-dollar claims. How do you like that?

They accept these items at no additional price or told us what it would cost in disruption—what it would cost to do the work and we paid. Now, lawyers are grilling me to destroy a theory which has been accepted by the company and used, grilling me in an attempt to prove that the agreed upon procedure is illegal.

Senator PROXMIRE. What you are saying is this: The contractors by and large are responsible for dragging out this procedure; furthermore, it is to their interests to do so and the system is so structured to encourage them to do so.

Admiral RICKOVER. Yes, sir.

Senator PROXMIRE. The longer they drag it out, the more they get, the higher the profits they get?

Admiral RICKOVER. That is correct, but there is another point to consider. Anyone who knows the facts in these disputes is likely to be gone in a short time. Don't think that is a foolish point.

Senator PROXMIRE. Except you.

Admiral RICKOVER. This is not only a point to consider—it is actually the case.

Senator PROXMIRE. Except you, you have been there since 1918. You outlasted most of the contractors.

Admiral RICKOVER. I have not been in this job since 1918, although—

Senator PROXMIRE. Yes, among official negotiators, there is a turnover.

Admiral RICKOVER. Although dealing with these lawyers has certainly sharpened my wits and given me another concept of how this society works. Let me tell you it has depressed me very much to see as I said—

Senator PROXMIRE. Admiral, with all this depressing testimony, I think that we have to recognize that this country has done pretty well in some ways with shipbuilding. We still have the best Navy ships in the world, most people feel that the one clear reliable deterrent we have against the Soviet Union is our submarines.

There is considerable question about the air part of the Triad and missile part of the Triad but the submarines are considered to be faster, quieter, more efficient in virtually every way.

Our Navy has built great ships.

Admiral RICKOVER. I will not comment on the statement of faster and quieter because of the classified nature of the subject.

Senator PROXMIER. It is classified, I realize, but that is the general view.

Admiral RICKOVER. But I will comment that the shipyards themselves could never all alone design and build these ships. Recently, or a few months ago, Mr. Diessel, the president of Newport News, during a speech at a launching made essentially this statement: "The Government gives us a blank sheet of paper and we have to go and design the ship."

It occurred to me—if all they get from the Government is a blank sheet of paper—how could they submit \$894 million worth of claims based on a blank sheet of paper? It occurs to me that question has never been answered.

There must be a partnership between the Government and the shipyard in order to build ships as complex as today's submarines, aircraft carriers, nearly all vessels.

With a tanker you can build from a standard plan and the consequences of anything going wrong are not anywhere near as serious. But when you consider a complex ship, especially a nuclear-powered ship, there must be complete cooperation between the design and construction people of the yards and the Government and as far as the working people are concerned, this cooperation prevails.

We have no problem with the working people. The real problem is with the financial managers whose objective is not really to build ships, but is to make money. This whole claims situation is made out to be a clash in personalities. It is not. There is one word that describes the problem—money.

I would like to say a few more things and I will be through—may I?

Senator PROXMIER. Before you finish, may I ask you a couple questions because they relate to what we have just been talking about.

Not only is there an argument that our ships, after all in spite of all the criticism, are of high quality, but they complain that their profits are too low. You say, well, they don't have to get into it. But one of the reasons they get into it is the very reason you are testifying to. They can look forward to claims and pad out their profits. But what I am saying is they would argue that the profits that they can anticipate if they don't file claims are inadequate, and among their arguments on this is the fact that there are so few shipbuilders.

It is not an area where corporations are rushing to get into it. Capital isn't attracted to it. That would argue it is not a very profitable operation basically.

Admiral RICKOVER. I can agree in some cases shipbuilders are not making a profit. But what are the reasons? what about their own inefficiencies? I don't agree that where a firm takes on a job like this, signs a contract, and then pays very little attention to how the work is done—perhaps because he has a feeling in back of his mind that the Government is going to pay whatever it takes—I don't agree the Government should guarantee him a profit.

There isn't any incentive to build ships efficiently. There is not the capitalist incentive. Again, I would like to point out that in the capi-

talist system there is risk. There is no risk in this game if we are just going to pay them off.

Senator PROXMIRE. Well, there certainly isn't a risk when you have this kind of a claims settlement. But I wonder if we cannot balance this out where we work out a system that provides for a substantial profit.

I agree with you that our system is the best but the cornerstone of our system is profit, incentive for profit, so that those who are efficient can make high profits. They should. That is good and I applaud it. I am sure you do, too.

Admiral RICKOVER. I have thought about this a great deal, and I cannot see any other way. I don't know of any other viable method with our system of government, except a GOCO operation, where it is necessary, and then we could step in and point out things that are wrong.

We can give guidance, advice and directions to the men who are running GOCO shipyards. We have done that from time to time under other GOCO operations. We cannot order private shipyard's what to do. We can only tell them what we consider to be a problem. But in a GOCO operation if we think management is doing something wrong, we can tell them and they must correct the situation or we will get new managers.

We operate the two laboratories under my jurisdiction under a GOCO arrangement and they make a profit. The parent companies make a profit. It is not large, I believe it is only about 2.6 percent but it is all earned money.

Now, may I read this?

Senator PROXMIRE. Go right ahead, yes, sir.

Admiral RICKOVER. The responsibilities of Government officials involved in the administration of these contracts are twofold:

First, to assure that the work is properly performed in accordance with the contract terms.

Second, to insure that public funds are legally spent.

The evidence presented in the claims is from the viewpoint of the contractors, not from that of those paying the bills.

Shipbuilders have been willing to settle their claims for far less than the amount claimed and this alone should cause one to question the validity of the amounts. This may also explain the reluctance of some company officials to certify their claims.

Theoretically, the burden of proof rests on the contract. In practice it is the Navy or any other Government agency that must construct whatever legal case the contractor may have. This is very time consuming.

Some claimants would have you believe that the whole problem has been created by a conflict of personalities. They have made shipbuilding claims a political and personal matter. In actuality, it is simply a matter of money.

Some say I have no business becoming involved in or criticizing the DOD's contracting or claims settlement practices. They say that any criticism should be left to those whose job it is. But some of them have ceased to be capable of self-criticism.

Although they have great power, they act as if Prometheus had become manager of a match factory.

Although financial dishonesty is of great importance, the real evil that follows general commercial dishonesty is the intellectual dishonesty it generates.

That is a very grave point. This dishonesty permeates much of business today which you know from all the bribery revelations and and many other scandals that have surfaced in recent years. The recording angel may occasionally shed a tear for a sinner but I doubt he will do so for those officials and the shrewd claim lawyers.

A new attempt is now being made by the Defense Department to settle claims. Those involved have implied this will be accomplished in a short time.

What new magic have they developed when all previous quick solutions have not worked and since it has taken the Contract Appeals Board which consists of expert people, such a long time?

I recommend legislation that would make public the records behind company profit calculations. That would help protect the so-called owners of the corporations; I mean the stockholders. You could have the Securities and Exchange Commission report on their profits and what their true financial position is. This would be essential information if a settlement is made.

I strongly urge you to consider that. I think you have some contact with the SEC. I strongly urge, because—

Senator PROXMIRE. Yes, we have jurisdiction over the SEC in the Banking Committee.

Admiral RICKOVER. If senior officials want to help out these conglomerates, let's first see what real profits the conglomerate is making. The SEC has expert people. Perhaps they should get involved before such a settlement is reached.

This is one of the most important suggestions I have offered you for sometime. I hope you will consider it, sir.

History is not wholly a realm of fact. It is also a realm of values. An appeal to principle is, therefore, the condition of any social advancement. Social institutions are the visible expression of the moral values which rule our minds. We cannot alter institutions without altering moral values. Men can make a better society but it will only come from belief in some higher order.

Senator PROXMIRE. Admiral, thank you very, very much for your excellent testimony. It is most useful. I believe you have made a brilliant analysis of his situation and an analysis that will help us to work out solutions.

You have also come out with some very constructive positive ways in which we can make progress. We are very grateful to you for your testimony.

Admiral RICKOVER. I in turn would like to thank you sir, for the privilege and opportunity of appearing before you, and testifying exactly as I believe, which is how I have been testifying, as I think you can tell by the depth of sincerity of my remarks.

The people of the State of Wisconsin should be congratulated for having had the wisdom of electing you and keeping you in your job.

Is that a good campaign pitch for you?

Senator PROXMIRE. That is a great one, yes. I just wish you could vote in Wisconsin.

Admiral RICKOVER. Well, maybe you can get a special law passed establishing a temporary residence for me.

Senator PROXMIRE. We will make you an honorary citizen, instead.

Admiral RICKOVER. Do that, entitled to vote, yes.

# ECONOMICS OF DEFENSE PROCUREMENT: SHIPBUILDING CLAIMS

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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  
AND  
NINETY-FIFTH CONGRESS  
FIRST SESSION

PART 2  
APPENDIXES

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**ITEM 12.—Mar. 18, 1976—ADM Rickover Memorandum for the Chief of Naval Material concerning certification of claims. The memorandum recommends the Navy "stand firm on its requirement for this affidavit and the other safeguards it has instituted to protect the public from unwarranted expenditures"**

DEPARTMENT OF THE NAVY,  
NAVAL SEA SYSTEMS COMMAND,  
Washington, D.O., March 18, 1976.

**MEMORANDUM FOR THE CHIEF OF NAVAL MATERIAL**

**Subject: Certification of shipyard (b) claims.**

**Enclosure: (1) My memo for the Deputy Commander for Contracts, Naval Ship Systems Command dtd 30 Jun 72.<sup>1</sup>**

1. I understand that you plan to meet with the President of shipyard (b) on March 19, 1976 to discuss shipbuilding claims. I recommend you take up the subject of claims certification as the first item of business at that meeting.

2. Navy Procurement Directives (NPD 1-401.55) require that, prior to evaluating contractor claim submittals, Contracting Officers must obtain an affidavit from the responsible senior company official certifying that, to the best of his knowledge and belief "... (i) the facts in the claim are current, complete, and accurate and, (ii) the conclusions in the claim accurately reflect the material damages or contract adjustments for which the Navy is allegedly liable." Shipyard (b) provided such an affidavit on its initial claim under the SSN 688 Class contracts but has refused to provide affidavits on its other claims.

3. This requirement was implemented because prior experience indicated that contractors often submitted grossly inflated claims and then revised and resubmitted them whenever the Government's evaluation of amounts actually owed did not turn out to be enough to satisfy the contractor. Enclosure (1) presents an example of one specific case and is similar to what the Navy is facing with shipyard (b) today. A possible fraud action in this case is still being investigated by a grand jury.

4. In addition to refusing to provide the required affidavits on its subsequent claims, now it appears that shipyard (b) is even trying to nullify the one affidavit it did provide. The situation is this:

On July 2, 1975, shipyard (b) submitted a \$142.5 million claim on its SSN 688 Class submarine contracts.

On October 3, 1975, shipyard (b), at Naval Sea Systems Command (NAVSEA) request, provided the required affidavit for the above claim; NAVSEA began evaluating the claim.

In February 1976, NAVSEA, based on a preliminary analysis, concluded that a provisional price increase of about \$10 million could be made on the claim.

On March 3, 1976, you met with shipyard (b) officials and informed them that the company would shortly be receiving a provisional payment of about \$10 million.

On March 8, 1976, shipyard (b) submitted a revised claim, now totaling \$270.1 million, covering these same ships; the required affidavit was not submitted, and has not yet been requested.

Although the revised claim is voluminous, comprising 15 books, a cursory review by NAVSEA personnel indicates that the revisions are not confined to additional items of alleged Government responsibility arising after submission of the first claim. Many of the elements of the first claim, which the company certified as being "current, complete, and accurate" have also been revised substantially.

<sup>1</sup> Enclosures may be found in company files.

5. I believe it is now essential for the Navy to stand firm on its requirement for this affidavit and the other safeguards it has instituted to protect the public from unwarranted expenditures. If the Navy makes a provisional payment on the revised and uncertified SSN 688 claim or if it proceeds to evaluate other uncertified shipyard (b) claims in the face of pressure from shipyard (b), the Navy will have set a precedent for all other contractors to push for higher settlements than the legal merits of their claims would justify. The Navy can then look forward to years of wasted effort evaluating exaggerated and constantly changing claims.

6. I know you are being urged to "improve relations" with shipbuilders. However, the problem is not one of human relations; it is strictly a matter of money. Shipyard (b) appears to want the Navy to ensure the company's profitability. This could well require a payment of more than the amount they are entitled to under their contracts. The Navy, however, can only pay claims on their legal merits. Payments on any other basis would require the Secretary of the Navy to exercise his authority to grant extra-contractual relief under P.L. 85-804.

7. By applying pressure and threatening not to build ships, the company apparently believes it can get paid more on its claims than it could otherwise get. Until contractors are convinced that the Navy intends to handle claims properly and in accordance with established safeguards, they will continue to submit inflated claims and attempt to negotiate settlements with senior Defense officials for more than they are legally entitled.

8. In summary, the Navy policy should be to expedite claim settlements on the basis of legal entitlement. However, this cannot be accomplished until shipyard (b) submits realistic claims and certifies that the claims and supporting data are current, complete, and accurate. I recommend you relate this to the President. If he refuses to submit such realistic certified data, I recommend the Navy suspend its evaluation of shipyard (b) claims and not grant provisional price increases against their claims until the matter is resolved to the Navy's satisfaction. In the long run this will expedite resolution of the claims problem.

9. I would appreciate being informed of what action you take in this regard.

H. G. RICKOVER.

**ITEM 13.—Mar. 18, 1976.—Memorandum from Adm. R. C. Gooding, Commander, Naval Sea Systems Command, to the Chief of Naval Material recommending that no provisional payment be made to Newport News in view of their submission of a revised claim on their SSN 688 Class submarine contracts**

MARCH 18, 1976.

**MEMORANDUM FOR THE CHIEF OF NAVAL MATERIAL**

**Subject: SSN 688 Class Provisional Payment to Newport News.**

1. On 2 July 1975, Newport News submitted a claim on its SSN 688 Class submarine contracts totalling \$142.5 million (ceiling price). On 3 October 1975, Newport News provided the affidavit required by the Naval Procurement Directives. In February 1976, NAVSEA completed its analysis of the SSN 688 delay portion of the claim and concluded that a provisional payment of about \$10.6 million could be paid Newport News on the claim. On 8 March 1976, NAVSEA obtained NAVMAT approval to make the provisional payment.

2. However, on 8 March 1976, Newport News submitted a revised claim for these ships totalling \$270.1 million. The SSN 688 delay element, which was previously analyzed, and which was to be used as the basis for the provisional payment was revised from \$17.8 million to \$26.1 million at cost. A comparison of the common elements of the two claims cannot be completed until the week of 22 March 1976. This should permit NAVSEA to determine whether the information used as the basis of the proposed provisional has been modified or altered by Newport News. If that has occurred, the supporting analysis will have to be redone. You should be aware that based on a cursory review to date, it appears that many of the elements of the claim have been revised and at least two technical elements have been added.



3. A new affidavit was not submitted with the revised claim. In addition, it appears that the revised claim makes the original affidavit invalid.

4. Based on the above, it is NAVSEA's position that no provisional payment should be made until (1) the required affidavit for the new claim is submitted and (2) NAVSEA can complete a detailed review of the revised claim to determine if a valid basis exists upon which to make such a payment.

R. C. GOODING,  
Commander, Naval Sea Systems Command.

**ITEM 14.—Mar. 24, 1976—ADM Rickover Memorandum for Assistant Secretary of the Navy Bowers regarding relations with Newport News Shipbuilding and Dry Dock Company. This letter provides background information regarding contractual problems with Newport News and recommends that senior officials make it clear to Newport News and Tenneco management that the Navy will process their claims on their legal merits**

DEPARTMENT OF THE NAVY,  
NAVAL SEA SYSTEMS COMMAND,  
Washington, D.C., March 24, 1976.

**MEMORANDUM FOR THE ASSISTANT SECRETARY OF THE NAVY, INSTALLATIONS AND LOGISTICS**

**Subject: Relations with Newport News Shipbuilding and Dry Dock Company.**

1. I understand that you and other senior Navy officials are to meet with the Deputy Secretary of Defense this week to discuss how the Navy might improve relations with Newport News. In view of our past discussion I thought you might like to have my views on this subject. Therefore I have summarized them in this memorandum.

2. The basic question in the Newport News situation is whether the Navy will take responsibility for financial problems at Newport News regardless of the company's responsibility and performance under its Navy shipbuilding contracts.

3. Most of the financial problem on Newport News Navy shipbuilding contracts is the outgrowth of company actions taken several years ago. In 1971, Newport News projected a need to build up manpower from 18,200 early in 1971 to over 30,000 employees in 1973 to meet its commitments on existing Navy contracts. In the fall of 1972, Newport News signed a contract for three Liquefied Natural Gas Carriers (LNG's) and announced plans to build a new yard for construction of these and other merchant ships. At that time, Newport News had an employment level of about 27,000 people and was still building up its manpower. Newport News and Tenneco officials stated at the time that they expected to make manpower for the commercial work available within their expected 30,000 employment level due to a projected decline in Navy work starting in mid-1974.

4. To assuage Navy concern over the potential impact of the commercial work on Navy work, the Chairman of the Board of Tenneco in a letter dated February 12, 1973 assured the Navy that:

"Tenneco will not allow performance of work on non-Navy contracts to interfere with the performance of work necessary to meet Newport News commitments on Navy contracts."

5. In early 1973, shipyard productivity decreased and there was a large increase in fabrication errors—apparently caused by the lower skill level of the new hires. In 1973, Newport News announced that it had abandoned its plans to build up to the 30,000 employees which it had projected were necessary to meet commitments on Navy contracts. Since that time the employment level has decreased to the present level of about 22,000.

6. The decline in productivity and increase in rework during the work force expansion caused an increase in the number of manhours required to complete present Navy contracts. To accommodate this increase in manhours and the shortfall in manning, Newport News stretched out Navy ship construction schedules. Under the contract terms these manpower problems and the costs of escalation on the deferred work are the responsibility of the shipyard.

7. The shipyard still does not have sufficient trained manpower to meet existing commitments on Navy contracts, and is currently faced with having to build up the manpower assigned to commercial contracts or delay the commercial ships. Newport News is claiming that the Navy is responsible for all the delays and higher costs which accrue on Navy work.

8. Newport News assembled a large team to prepare claims on Navy shipbuilding contracts. To generate bases for these large omnibus claims, employees have been encouraged to search out and report actions and events that might be used as a basis for a claim against the Navy. Even minor technical details or problems are now treated as contractual matters.

9. Settlement of contract changes has also become increasingly difficult. Often the company either refuses to price the changes in advance, quotes an excessive and unsupported price, or demands the right to reopen contract pricing later for other reasons such as the "cumulative impact of contract changes."

10. Recently Newport News has accelerated its efforts to have the Navy accept responsibility for financial problems at Newport News. For example, during the past year:

Newport News stopped work on the CGN 41, claiming that the contract option for construction of CGN 41 is invalid. A U.S. District Court directed that the company continue construction while the parties attempted to negotiate their differences and while several issues in dispute were submitted to the Comptroller General for rulings. When the Comptroller General ruled in the Navy's favor the company disagreed and returned the dispute to court.

Newport News continued to refuse to accept most contract changes without reserving rights to "cumulative impact" thus making it impossible to preprice most changes. This created the large backlog of unpriced changes about which Newport News repeatedly complains.

Newport News stated, in a February 20, 1976 letter to the Chief of Naval Operations, that it was considering stopping work on the OVN 70 and not entering into new Navy shipbuilding contracts. The company repeated that statement in a March 15, 1976 letter to Congressman T. N. Downing which has been published in the Congressional Record.

11. Newport News has now submitted to the Navy the large omnibus claims it has been assembling for over a year. These shipbuilding claims now total over \$304 million in requested ceiling price adjustments and cover every active Navy shipbuilding contract at the shipyard in addition to several completed contracts. Newport News has been utilizing these claims as the basis for getting the Navy to accept responsibility for the financial problems at the shipyard. However:

a. Newport News refuses to certify these claims as being current, complete, and accurate as required by Navy Procurement Directives. From preliminary Navy review it appears that claims are inflated.

b. Newport News typically does not show a relationship in these claims between alleged Government actions and increased costs and delays. It simply lists a series of alleged Government actions, and then claims that the Government is responsible for all increased costs and delays.

12. While Newport News is owed some money on its claims, the company, by the nature of its claims submissions, has made it very difficult and time consuming to sort out the items for which legal entitlement exists. It is reasonable to conclude from the manner in which the claims have been presented that the company believes that actual entitlement under these claims is considerably less than the amount the company is seeking.

13. In his March 15, 1976 letter to Congressman Downing, the President of Newport News stated "I need to bring all the pressure to bear that I can for a prompt and equitable resolution of the differences between the company and the Navy. Time has run out." Yet, over \$605 million (three-fourths of the total) of Newport News' claims were submitted or revised within the last two months. Moreover, it was Newport News' decision to store up small changes and other items for use in large omnibus claims rather than adjudicate them on their merits at the time they arose.

14. The problem with Newport News is strictly one of money. Relations between the shipyard and the Navy will continue to be poor until the company is paid what it wants or until company officials are convinced that the Navy will pay only what it legally owes. In this regard, you should recognize

that the Newport News parent, Tenneco, is not in any financial trouble—the corporation is reporting record profits.

15. Under P.L. 85-804, the Secretary of the Navy has authority to make payments to contractors regardless of contract terms. In this regard, various possibilities have been discussed. For example, it has been suggested that Newport News contracts be reformed to extend contract delivery dates and apply revised escalation provisions on the basis that escalation provisions on current contracts are inadequate. Actually current contracts adequately protect shipbuilders against inflation if the contractors meet contract schedules or if all delays are Government-responsible. Extending contract delivery dates and providing escalation coverage to current Newport News schedules, however, would result in the Government financing contractor-responsible delays.

16. Granting extra-contractual relief in the current circumstances would create problems. Even if Congress were to approve such relief and appropriate the necessary funds, the Navy would be left with the problem of fending off requests from other contractors for similar treatment. It would become increasingly difficult to enforce Government contracts or settle claims on their legal merits.

17. Assuming that the Navy intends to resolve claims on their legal merits rather than grant extra-contractual relief, I recommend the following actions be taken:

a. Make it clear to Newport News and Tenneco management that the Navy will process their claims and settle them based only on the legal merit of the claims.

b. Return responsibility for settling these claims to the Naval Sea Systems Command and discourage company officials from seeking settlements at higher levels.

c. Enforce the Navy requirement that the senior responsible company official certify that the claims are current, complete, and accurate.

d. Provide the Naval Sea Systems Command sufficient resources to review claims expeditiously. Current Navy legal support is inadequate and too much of the burden falls upon technical people, who are becoming increasingly unable to carry out their primary duties because of the claims workload. The Navy needs to hire, or have the Department of Justice hire for the Navy, outside legal counsel and such other assistance as is necessary to assist in the evaluation of claims and claims related matters.

H. G. RICKOVER.

*ITEM 15.—Mar. 29, 1976—Memorandum from Gordon W. Rule to Chief of Naval Material Michaelis endorsing Mr. Clements' decision to utilize the extra-contractual provisions of Public Law 85-804 to settle the shipbuilding claims. This letter sets forth Mr. Rule's thoughts and suggestions in connection with Navy implementation of Mr. Clements' decision*

[Memorandum]

MARCH 20, 1976.

To: ADM F. H. Michaelis, Chief of Naval Material.

From: Gordon W. Rule, MAT-022.

Subject: The Use of P.L. 85-804 to Remedy the Situation Existing in Three Shipbuilding Yards in the United States, Which Adversely Affects the National Defense of the United States—Thoughts Concerning.

1. On Wednesday, 24 March 1976, Mr. Clements, Deputy SECDEF, was given a presentation by the Chief of Naval Material in response to his request for recommendations of what the Navy proposed to do to eliminate the \$1.7 billion in Requests for Equitable Adjustments (REA's) under Navy shipbuilding contracts at Electric Boat Division of General Dynamics, Newport News and Litton. The presentation was made by RADM Hopkins who heads the contract division of the Naval Sea Systems Command.

2. Of the \$1.7 billion of pending REA's, \$1,097.2 million are for nuclear surface ships and submarines under contracts at Electric Boat and Newport News which have been submitted since 1 January 1976.

3. At the conclusion of the presentation, Mr. Clements made the decision to utilize the provisions of Public Law 85-804 to settle the pending REA's at these three shipbuilding yards so vital to the present and future shipbuilding

ITEM 27.—Apr. 22, 1976—Memorandum from Admiral H. G. Rickover to Chief of Naval Material forwarding a copy of Admiral Rickover's notes for discussion on shipbuilding claims with the Assistant-Secretary of Defense that day.

DEPARTMENT OF THE NAVY,  
NAVAL SEA SYSTEMS COMMAND,  
Washington, D.C., April 2, 1976.

MEMORANDUM FOR THE CHIEF OF NAVAL MATERIAL

Subject: Shipbuilding claims.

Enclosure: (1) Notes for discussion with the Honorable Frank A. Shrontz, Assistant Secretary of Defense (I&L).

1. This morning I met with the Assistant Secretary of Defense (Installations and Logistics) at his request to discuss the subject of shipbuilding claims. He was accompanied by the Honorable Richard A. Wiley, Department of Defense General Counsel.

2. Enclosed is a copy of the memorandum I gave to them.

H. G. RICKOVER.

Enclosure.

NOTES FOR DISCUSSION WITH THE HONORABLE FRANK A. SHRONTZ, ASSISTANT SECRETARY OF DEFENSE (I&L)

Subject: Shipbuilding Claims.

References: (a) NAVSEA ltr to Mr. N. W. Freeman, Tenneco, Inc., of 6 August 1975; (b) Memo for Asst SECNAV (I&L) dated 24 March 1976; (c) Notes for discussion with Secretary Clements of 7 April 1976.

1. There are currently no outstanding claims against the Navy from Electric Boat Division of General Dynamics. The recent EBDiv claim against the contract for the first flight of follow SSN 688 Class submarines was handled by the Naval Sea Systems Command within the claims handling procedures presently in effect in the Navy. The President of the Electric Boat Division certified the claim in accordance with the requirements of Naval Procurement Directives as being current, accurate, and complete. In the claim release, EBDiv agreed to use their best efforts to submit by 1 December 1976 any remaining claims they may have on the first flight and on the second flight of the SSN 688 Class for events occurring up to 1 November 1976. They agreed

that such claims would be certified and would show the cause and effect relationship for which they consider the Government to be responsible under the contracts. Based on this settlement and claims release, and the history of experience in dealing with General Dynamics, there is good reason to believe that the Navy, if allowed to, could work out with EBDiv a reasonable settlement within the terms of the contracts using the Navy's normal claims processing procedures.

2. The major claim currently before the Navy from Ingalls Shipbuilding Division of Litton concerns the LHA's and, therefore, does not involve nuclear ships. The Litton claims concerning nuclear ships have already been reviewed by the Armed Services Board of Contract Appeals and are also under investigation by the Justice Department for possible fraud. The latter matter is currently being investigated before a grand jury in Alexandria, Virginia.

3. The largest unresolved issue concerning shipbuilding claims is how to handle the current Newport News Shipbuilding and Dry Dock Company of Tenneco, Inc. claims. These amount to a requested increase in contract ceiling prices on six contracts which total \$894M. If the requested increase of \$894M in ceiling prices were granted, Newport News would ultimately receive actual payments of about \$43M, if the final costs of the ships are the same as the latest Newport News cost estimates submitted to the Navy. On the other hand, if the \$894M increase in ceiling prices were approved, and the final costs of the ships as delivered turned out to be higher than the current Newport News estimates, then in accordance with the cost sharing provisions of the contracts Newport News would receive even more than the \$43M. This increase in payments would occur whether or not the increased run-out costs were caused by contractor responsible matters, such as slowing down remaining Navy work in order to enable Newport News to meet fixed price commitments on commercial work. If the Newport News claims against the Navy were paid as submitted, Newport News would receive all of their costs for the work they have done and are doing on construction of Navy ships, whether or not these costs were the responsibility of the Government, and would also receive a substantial profit on each contract.

4. There is no question that Newport News in submitting their claims has included in each one some items and some amounts for which the Navy owes them money. For many of these items, the Navy has tried for months, and in some cases years, to get Newport News to submit specific proposals identifying the cost that the Government owes them on the items, so that each could be negotiated on its merits. However, Newport News has reserved these items to include in their omnibus claims so as to ensure that they include at least some items for which there can be no question as to some entitlement.

5. The Navy, of course, must pay Newport News the amounts to which they are entitled by their contracts. The best and quickest way to do this would be for Newport News to submit claims that are factual and correctly relate Government responsible actions to the amount of money the Government owes them. If Newport News would do this, then their claims could be processed fairly and quickly.

6. However, Newport News has chosen to submit voluminous claims which do not relate Government cause to effect and which obfuscate the issues by alleging all sorts of Government actions as being responsible for increased costs, such as Norfolk Naval Shipyard's hiring practices. Newport News refuses to certify their claims as being current, complete, and accurate, and generally claims that the Navy is responsible, and owes them for everything that has happened at Newport News plus a substantial profit. References (a) and (b) discuss this matter in more detail. The result is that the Government is now faced with the basic question of whether the Navy should take responsibility for financial problems at Newport News regardless of the company's responsibility and performance under its Navy shipbuilding contracts.

7. The matter has now, as you are aware, been taken out of the Navy's hands; the Department of Defense has publicly stated that the Navy has handled shipbuilding contracts in an unsatisfactory manner, and that the present contract provisions are inequitable and have resulted in injustices and unfair consequences. In fact, in a pre-trial court hearing this week concerning the dispute over the validity of the option for the CGN 41, Newport News lawyers cited Department of Defense statements that the Navy's con-

tracts are unfair in support of their contention that the CGN 41 option is invalid.

8. When the Department of Defense proceeds with its presentation to the Congress of the need for reforming present shipbuilding contracts under Public Law 85-804, witnesses will, of course, have to substantiate the basis on which the Government finds the present contracts to be invalid. To the extent the Department of Defense succeeds in establishing these points, it could undermine the Navy's position in upholding the validity of the CGN 41 contract option or any other Government contract.

9. Also, there are indications that other contractors are watching this matter with great interest. For example, Curtis Wright Corporation which had withdrawn its request for relief under Public Law 85-804 for nuclear component contracts has now informed their prime contractor, the General Electric Company, that they are reevaluating their position in view of the more liberal approach announced by the Department of Defense concerning the use of Public Law 85-804.

10. Since the use of Public Law 85-804 in the case of Newport News has been initiated by the Government and not the contractor, and is apparently to be applied in order to ensure that the contractor receives profits on present fixed price incentive fee contracts, it is obvious that the entire defense industry will desire to evaluate the impact of the precedents set in light of their own situations. As a minimum, these actions can be expected to encourage defense contractors to handle their contractual dealings at the OSD level rather than at the Navy Systems Command level.

11. As I stated in reference (c), I believe that the contemplated, one-time granting of extra-contractual relief will not eliminate the basic problem. In fact, it may encourage contractors to believe that the Navy will henceforth be instructed to ensure their future profitability regardless of their contract performance. The impact of the use of Public Law 85-804 in this case could be profound on all existing and future Defense contracts.

H. G. RICKOVER.

LAW OFFICES  
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 WASHINGTON, D. C. 20026

CABLE: JOHNLI

November 28, 1978

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1800 M STREET, N. W.  
 OF COUNSEL  
 JOHN COSGROVE McBRIDE

BY HAND

Honorable W. Graham Claytor, Jr.  
 Secretary of the Navy  
 The Pentagon  
 Washington, D. C.

Re: Freedom of Information Act Request

Dear Secretary Claytor:

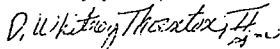
Reference is made to this firm's November 27, 1978  
 Freedom of Information Act request.

In paragraph 7 of our Freedom of Information Act  
 request we asked for "all documents received from or provided  
 to Senator Schweiker or his office with respect to his request  
 for copies of Admiral Rickover's letters and/or memoranda out-  
 lining his claims of alleged fraud by the Newport News Shipyard."

In the interest of avoiding duplication to the extent  
 that documents requested in paragraph 7 of our November 27th  
 letter are being provided to Vincent F. Ewell, Jr., Vice Presi-  
 dent and General Counsel of Newport News Shipbuilding and Dry  
 Dock Company, our request for such documents is hereby with-  
 drawn.

Your assistance in this matter is greatly appreciated.

Sincerely yours,



D. Whitney Thornton, II

*And L. J. ...*

LAW OFFICES **NO 3-12098**  
**00LC**

SULLIVAN, DEAGREGARIO, CLARKSON, MOSS, BROWN & JOHNSON  
 WASHINGTON, D. C. 20033

November 27, 1973

1300 M STREET, N. W.

OF COUNSEL  
JOHN COSGROVE DEBARD

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 ERIC M. DEBARD  
 THOMAS J. DEBARD  
 CAROL A. POTTER, III

BY HAND

Honorable W. Graham Claytor, Jr.,  
 Secretary of the Navy  
 The Pentagon  
 Washington, D. C.

Re: Freedom of Information Act Request

Dear Secretary Claytor:

This firm represents Newport News Shipbuilding and Dry Dock Company, and we are sending this letter at the Company's direction.

Pursuant to the Freedom of Information Act, 5 U.S.C. § 552, it is requested that copies of the following documents be provided:

1. All correspondence between the Navy Secretariat (including SECNAV, UnderSECNAV, Assistant SECNAV and the General Counsel) and the Navy Claims Settlement Board concerning the Company's Requests for Equitable Adjustment under Contracts N00024-69-C-0307 (SSN 686/687), N00024-68-C-0355 (CVN 36/37), N00024-70-C-0269 (SSN 688), N00024-71-C-0270 (SSN 689/691/693/69), N00024-70-C-0252 (CGN 38/39/40), and N00024-67-C-0325 (CVN 68/69)
2. All minutes and notes of meetings and notes of telephone conversations among the Navy Secretariat or their staffs and the Navy Claims Settlement Board regarding the Company's Requests for Equitable Adjustment identified in 1 above.
3. All minutes and notes of meetings and telephone conversations among the Navy Secretariat and their staffs and Company representatives concerning the Company's Requests for Equitable Adjustment identified in 1 above.
4. All documents recording, justifying, supporting, or otherwise related to the settlement entered into between the Company and the Navy on October 5, 1973, concerning the Company's Requests for Equitable Adjustment identified in 1 above.



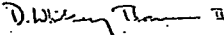
5. All documents relating to communications between the Navy and the United States Congress or any member or committee thereof relating to the Company's Requests for Equitable Adjustment identified in 1 above.

6. All documents containing or relating to instructions, approvals, directions, non-approvals, decisions, and other actions of the Navy Secretariat pertaining to the Company's Requests for Equitable Adjustment identified in 1 above, the settlement thereof or negotiations or discussions relating thereto.

7. All documents received from or provided to Senator Schweiker or his office with respect to his request for copies of Admiral Rickover's letters and/or memoranda "outlining his claims of alleged fraud by the Newport News Shipyard."

We shall pay reasonable and usual costs for search and reproduction. It shall be appreciated if the undersigned is telephoned when the documents have been compiled and reproduced.

Sincerely yours,

  
D. Whitney Thornton, II



5. All documents relating to communications between the Navy and the United States Congress or any member or committee thereof relating to the Company's Requests for Equitable Adjustment identified in 1 above.

6. All documents containing or relating to instructions, approvals, directions, non-approvals, decisions, and other actions of the Navy Secretariat pertaining to the Company's Requests for Equitable Adjustment identified in 1 above, the settlement thereof or negotiations or discussions relating thereto.

7. All documents received from or provided to Senator Schweiker or his office with respect to his request for copies of Admiral Rickover's letters and/or memoranda "outlining his claims of alleged fraud by the Newport News Shipyard."

We shall pay reasonable and usual costs for search and reproduction. It shall be appreciated if the undersigned is telephoned when the documents have been compiled and reproduced.

Sincerely yours,

*D. Whitney Thornton*

D. Whitney Thornton, II

**Question 13.** The House Armed Services Committee Report for Fiscal Year 1975 stated that the FFG-7 class was designed to be built for under \$50 million per ship in unescalated Fiscal Year 1973 dollars. Is this cost being met? If not, why not?

Answers. While the Navy believes that the application of the design-to-costs concept in the FFG-7 Class was successful in limiting program cost, the cost goal has not been met. The average follow ship cost goal of \$45.7 M in unescalated FY 73 dollars was established in 1972, and based on a number of assumptions, among them being multiyear procurements for 49 identical follow ships with funding years from FY 75 through FY 79. Changes in marketplace conditions since 1973, and production plan, design and estimating changes have all contributed to the Navy not attaining the cost goal. Inclusion of funding for systems in later program years such as CIWS, LAMPS III, TACTAS, fin stabilizers, etc. (previously unfunded space and weight items, and excluded from the cost goal) has also increased FFG-7 program cost.

**Question 14a.** Why was delivery of the lead FFG-7 delayed 8 months from the original contract delivery date of March 1977?

Answer. Early on in the Program, during both Preliminary and Contract Design, electrical load analyses indicated that three Ship Service Diesel Generator's (SSDG's) could handle the expected loads. However, the development of detail design (which commenced in May 1973) revealed a steadily increasing electrical load requirement. In late January 1974, shortly after award of the lead ship contract on 30 October 1973, it became apparent that an additional SSDG set would be required to meet this increasing electrical load requirement. As a result, the lead ship contract with Bath Iron Works (BIW) was modified to add a fourth SSDG set which resulted in a change in contract delivery date from 31 March 1977 to 30 June 1977. With the additional electrical capacity added by the fourth SSDG, the FFG-7 Class ship can satisfy all cruising and battle requirements with three of the four SSDG's on the line (and one on standby). This requirement could not have been met previously; thus the change was mandatory.

The five month delay in contract delivery date for FFG-7 from 30 June to 30 November 1977 resulted from a very complex situation. The two most direct causes for delay were delayed rework on the shaft strut and correction of propulsion system deficiencies discovered at the Propulsion System Land Based Test Site.

Bath Iron Works received a faulty shaft strut requiring substantial rework. This rework was delayed by a strike at the subcontractor, National Forge, for a period of three weeks.

Propulsion System deficiencies were discovered at the Propulsion System Land Based Test Site, correction of which was mandatory to ensure proper lead ship operation. BIW was directed to correct these deficiencies and based upon this direction, claimed entitlement to an additional six months extension to the required ship delivery.

While it was generally agreed that the ship delivery would slip as a result of these corrections (some of which the Navy considered to be BIW's responsibility) many other factors such as a three week strike at BIW, undermanned production trades at BIW, and excessive BIW production rework were also considered by the Navy to be important contributors to the delay. BIW was so advised.

Incident to negotiation of changing the contract delivery date from 30 June 77 to 31 Dec. 77 BIW proposed to accomplish a CIC rearrangement prior to ship delivery, within the six month delay to which they claimed entitlement. In addition, BIW agreed to install the AN/SQS-56 Sonar on a not-to-delay-delivery basis during the same period, which previously was not a contract requirement.

The Navy found these proposals attractive and agreed to a new contract delivery date of 31 Dec. 1977. Lengthy and costly negotiations on lead ship delivery cost and delay causes and responsibilities were avoided, permitting completion of the ship in a non-adversary environment. The lead ship has an improved CIC identical to the follow ships and the ship eventually delivered on 30 November, one month ahead of the contract delivery date of 31 December 1977.

**Question 14b.** Is it true that the ship was delivered prior to testing? If so, why?

Answer. No. All testing related to the actual ship construction was completed with the exception of some propeller air emission testing that could not be completed due to interference from other trial instrumentation.

**Question 14c.** Does any additional detail design and construction effort still remain to be performed on FFG-7?

**Answer.** The detail design effort and original construction effort are complete. However, some engineering changes are being incorporated during the current Post Shakedown Availability which is scheduled to complete on 24 March 1979.

**Question 14d.** When will the contract for this lead ship be completed? Who is responsible for these delays?

**Answer.** Basically all work related to detail design and construction of the lead ship has completed in accordance with the contract. Some work remains, however, in completion and delivery of software required by the contract. This effort is expected to complete by mid-1979. The delays that have occurred were the result of the changes in contract delivery noted above and were mutually agreed to between the contractor and the Navy.

**Question 15.** What is "design-to-cost" as applied to shipbuilding and when was it instituted? Was this concept applied to the FFG-7 program? If so, what benefits and disadvantages have been attained and are you satisfied with the results?

**Answer.** The Design-to-Cost concept was initially promulgated in DOD Directive 5000.1 of 13 July 71, Acquisition of Major Defense Systems, which directed that "discrete cost elements \* \* \* shall be translated into "design to" requirements. This concept was applied to the FFG-7 Program, from the outset, through the imposition of cost, size, and manning constraints. The USN is satisfied with the results, because acquisition costs were kept under control and reasonably close to original (1972) estimates, considering unprecedented inflationary pressures and associated market place effects since 1973, and authorizations at a slower rate than planned (the original design-to-cost goal was for the average cost of 49 follow ships authorized at the rate of 7-11-10-10-11, starting in FY 75). There are no significant disadvantages of the concept when applied to a "low-mix ship" such as the FFG-7 class.

**Question 16.** What is the Navy's answer to GAO criticisms of the FFG-7 space, weight, and stability margins? How will these margins affect design changes the Navy may wish to make?

**Answer.** The FFG-7 Class Program, since inception, has followed very disciplined procedures in the design of the ship. The design was carefully developed to meet mission requirements only, and to avoid costly space and weight reservations for unspecified future growth items. The addition of planned space and weight items (e.g., LAMPS III, TACTAS, CIWS) provide the FFGs with the latest in capabilities to meet mission requirements in the 1990s and beyond. In addition, a service life margin of 50 tons is set aside to account for unspecified weight increases. With respect to future modernizations, it is anticipated that systems developed through improved technology will replace existing systems to maintain mission effectiveness.

**Question 17.** In 1976 then Deputy Secretary of Defense William Clements unsuccessfully tried to settle shipbuilding claims using Public Law 85-804. Is it true that at that time, Bath Iron Works requested relief under Public Law 85-804 in connection with their FFG-7 program? If so, provide the details. What was the rationale for the Bath request and what action did the Navy take pursuant to it? Please submit the pertinent correspondence.

**Answer.** Yes. Bath requested relief directly to Deputy Secretary of Defense on the lead ship contract only, which was a cost plus incentive fee contract. The request was based on the fact that the unforeseen material inflation being experienced was resulting in a significant reduction in their fee even though their increased costs would be reimbursed. The Secretary advised Bath that since they were being reimbursed all costs and were assured of at least a minimum fee that more equitable relief was not appropriate. Bath has not pursued the matter further. Bath's request and the Secretary's reply are attached.

BATH IRON WORKS CORP.,  
SHIPBUILDERS AND ENGINEERS,  
SUBSIDIARY OF CONGOLEUM, CORP.,  
*Bath, Maine, May 4, 1976.*

Hon. WILLIAM P. CLEMENTS, Jr.,  
*Deputy Secretary of Defense,  
The Pentagon, Washington, D.C.*

DEAR MR. CLEMENTS: We have followed with great interest your activity during the past few weeks relating to your determination to grant relief under Public Law 85-804 from the impact of inflation on Navy shipbuilding contracts entered into from 1968 through 1973.

We note from your comments before the Senate Committee on Armed Services on April 29, 1976 that the DoD Shipbuilding Executive Committee is currently considering eleven shipbuilding contracts for relief from inflation. We further note that the Committee will probably require another 30-45 days to complete its detailed study and negotiations with the shipbuilders before formulating its firm recommendations.

Inasmuch as we have not as yet been contacted by the Committee, we naturally wonder if our Navy Contract No. N00024-74-C-0207 for the construction of the F.F.G. Prototype Ship in the Navy's F.F.G. Program as among the eleven contracts under consideration by the Committee. The possibility may exist that because it is a cost type contract, the Committee assumed that the impact of inflation was entirely borne by the Government, and that the Contractor suffered no loss at all. If, by chance, the Committee made this assumption, may I hasten to correct it.

The F.F.G. Prototype Ship is being constructed under the cost plus incentive fee portion of a contract entered into on October 30, 1973. The initial target fee was \$4.5-million or 10% of the initial target cost. The initial minimum fee was \$1.4-million or 3.1% of the initial target cost.

The impact of the 1974 inflationary spiral on this contract is currently estimated to be approximately \$7-million. It is true that the Government has and is reimbursing us for these unforeseen costs. As there is no escalation clause in this contract, however, these inflationary costs have resulted in a reduction in our fee from the initial target of 10% to very close to the minimum of 3.1%, or a decrease of approximately \$3-million.

As inflation continues to erode away our final fee, the incentive feature of this contract will decrease proportionately. Once the fee reaches the minimum of 3.1%, the incentive is completely gone; and the contract, in fact, becomes cost plus fixed fee. We take no comfort that the contract would then be free from risk and we heartily join that group of shipyards to which you recently referred who have expressed no desire for risk free contracts. Ships need not and should not be built under such an arrangement—especially a prototype where innovations and cost-saving ideas frequently flow down undiminished to follow-on vessels.

We respectfully submit that this cost plus incentive fee contract for the F.F.G. prototype Vessel should receive the same treatment as the fixed price incentive contracts now being actively considered by the Committee. The substitution of the Navy's new, improved escalation clause for the old escalation clause in fixed price incentive contracts would appear to be even more warranted in the case of a cost plus incentive fee contract containing no escalation clause at all. There is no difference between a radically reduced fee under a cost plus incentive fee contract and a radically reduced profit under a fixed price incentive contract. The economic impact is the same.

We, therefore, respectfully request that the cost plus incentive fee portion of Contract No. N00024-74-C-0207 for the construction of the F.F.G. Prototype Ship be accorded the same treatment as other shipbuilding contracts currently under active consideration by the DoD Shipbuilding Executive Committee. Although the \$3-million involved may appear rather miniscule when compared to

these other contracts, believe me, Mr. Secretary, it is very significant and important to us.

We would like to point out for the record that this is not the first time that we have requested relief from the 1974 inflation spiral under this contract. By letters addressed to the Commander, Naval Sea Systems Command dated July 18, 1974, January 24, 1975 and May 21, 1975, we pointed out the impact of the uncontrollable inflation and suggested several different remedial actions that could be taken, none of which were accepted by the Navy. Although we are certain that PMS-399 in NAVSEA has complete files on this subject, we will be glad to furnish the Committee with any and all supporting information that they may desire.

Very truly yours,

J. F. SULLIVAN, Jr.,  
President.

THE DEPUTY SECRETARY OF DEFENSE,  
Washington, D.C., August 11, 1976.

Mr. JOHN F. SULLIVAN, JR.,  
President, Bath Iron Works Corp.,  
Bath, Maine

DEAR MR. SULLIVAN: In response to your letter of 4 May, in which you requested relief under Public Law 85-804 for losses of fee incurred by you in the FFG-7 shipbuilding contract, we considered only adjustments in fixed price type contracts under the initiatives which were undertaken by my office. Your contract was, therefore, not among the eleven considered.

While I am sympathetic to the reduction of fee you may be suffering under your CPIF contract, all of your costs are, of course, reimbursed thereunder; and you are also assured of at least a minimum fee. Thus, even if you were able to identify that portion of your cost growth attributable purely to "the 1974 inflationary spiral," your situation under the instant contract is considerably different than that with which other shipbuilders have been faced under fixed price type contracts.

I am advised by the Navy that your case has been reviewed three times in the past, and that the Department of Defense General Counsel has also examined this matter. Based upon their review, I am compelled to conclude that equitable relief is not appropriate in this instance.

Sincerely,

A. P. CLEMENT, JR.

*Question 18a.* For each of the fixed price incentive fee contracts for follow FFG-7 Class construction, please provide: the present target cost, target profit, target price, ceiling price, target-to-ceiling spread. For each of these categories please provide also the original contract amounts.

Answer:

[In thousands]

	BIW—Contract N00024-76-C-2001		Todd LA—Contract N00024-76-C-2100		Todd Seattle—Contract N00024-76-C-2101	
	Current	Original	Current	Original	Current	Original
Fiscal year 1975/76 FFG-7 class follow ship contracts (1st flight) as of Dec. 15, 1978:						
Target cost.....	\$203,442	\$196,312	\$141,236	\$132,790	\$51,752	\$48,713
Target profit.....	28,764	27,484	15,035	13,785	5,397	5,057
Target price.....	232,206	223,816	156,272	146,575	57,149	53,770
Ceiling price.....	254,383	245,390	176,545	165,987	64,693	60,891
Target to ceiling spread.....	22,177	21,574	20,273	19,412	7,544	7,121
	BIW—Contract N00024-77-C-2080		Todd LA—Contract N00024-77-C-2082		Todd Seattle—Contract N00024-77-C-2081	
	Current	Original	Current	Original	Current	Original
Fiscal year 1978/79 FFG-7 class follow ship contracts (2d flight) as of Dec. 15, 1978:						
Target cost.....	\$266,528	\$261,224	\$272,250	\$263,827	\$184,266	\$176,280
Target profit.....	27,568	36,714	34,170	33,027	23,069	22,035
Target price.....	304,147	297,938	306,420	296,854	207,335	198,315
Ceiling price.....	334,224	326,529	340,313	329,783	230,332	220,351
Target to ceiling spread.....	29,077	28,591	33,893	32,929	22,997	22,036

**Question 18b.** What is the Navy's current projected estimate at completion on each contract for: escalation, contract cost, profit or loss, and slippage from original contract delivery date?

Answer:

[In thousands]

	BIW—Contract N00024-76-C-2001	Todd LA—Contract N00024-76-C-2100	Todd Seattle— Contract N00024-76-C-2101
<b>Fiscal year 1975/76 FFG-7 class follow ship contracts</b> (1st flight) as of Dec. 15, 1978:			
EAC—Escalation.....	\$72,500	\$44,900	\$14,700
EAC—Contract cost.....	203,665	149,612	55,295
EAC—Profit.....	28,697	12,522	4,334
EAC—Slippage from original contract delivery date.....	None	None	None
	BIW—Contract N00024-77-C-2080	Todd LA—Contract N00024-77-C-2082	Todd Seattle— Contract N00024-77-C-2081
<b>Fiscal year 1977/78 FFG-7 class follow ship contracts</b> (2d flight) as of Dec. 15, 1978:			
EAC—Escalation.....	\$111,300	\$112,100	\$66,600
EAC—Contract cost.....	266,528	268,310	181,215
EAC—Profit.....	37,568	35,352	24,096
EAC—Slippage from original contract / delivery date.....	None	None	None

**Question 18c.** Do the contractors agree with the Navy's estimates? If not, please explain the differences.

Answer. The contractors and the Navy agree as to the estimates at completion provided in No. 18.b. above, except for the escalation estimates. The contractors' projected escalation for all contracts is less than the Navy's escalation estimate for this contract, primarily because of the contractors' earlier expenditures for labor and material.

**Question 19.** Please provide the corresponding information requested in No. 18 above, where applicable, for the cost-plus-incentive fee type lead contract for FFG-7.

Answer. Data corresponding to information requested in No. 18 above for the cost-plus-incentive fee type FFG-7 lead ship contract as of 29 October 1978 follows:

[In thousands]

	Current	Original
Target cost.....	\$59,382	\$45,000
Target profit.....	6,935	4,500
Target price.....	66,317	49,500
Ceiling price.....	NA	NA
Target to ceiling spread.....	NA	NA
EAC—Escalation.....	NA	NA
EAC—Contract cost.....	78,033	NA
EAC—Profit.....	3,936	NA
EAC—Slippage from original contract delivery date.....	( <sup>1</sup> )	NA

<sup>1</sup> See No. 14 above.

The contractor and the Navy agree to the above estimates.



**Question 20.** Please provide a breakdown by major cost category of the total end cost to the Navy of FFG-7 and the corresponding budget estimates submitted to Congress for funding of this lead ship.

**Answer.**

[In millions]

	Original estimate prepared December 1971	Currently proved estimate
Planning and design costs.....	\$63.2	\$57.4
Basic construction.....	46.9	80.4
Change orders.....	2.0	17.6
Electronics <sup>1</sup> .....	8.8	10.2
Hull/mechanical/electrical.....	6.8	42.5
Other costs (e.g., test, NAVSEC support).....	19.9	12.1
Ordnance <sup>1</sup> .....	38.0	49.9
Project manager's contingency.....	5.9	
<b>Total.....</b>	<b>191.5</b>	<b>270.1</b>

<sup>1</sup> Includes Government furnished equipment and equipment for land based test sites.

**Question 21a.** What percent of the total end cost for FFG-7 is attributable to the cost of Government-furnished equipment?

**Answer.** The cost of Government procured equipment furnished to the lead shipbuilder is approximately 15 percent of the total end cost.

**Question 21b.** What percent is attributable to added construction costs caused by problems with Government responsible systems and equipment? Did the Navy anticipate the full extent of problems with Government-furnished equipment?

**Answer.** Not more than 1 to 2 percent of the added construction costs was due to Government responsible systems and equipments. The Navy utilized several management innovations in an attempt to avoid problems with Government Furnished Equipment (GFE), among them were:

The earliest possible provision of Government Furnished Information (GFI) to the contractor for use in his detail design and the use of controlled procedures for the tracking and handling of GFI deficiencies in order to provide the earliest possible resolution.

Use of the Combat Systems Land Based Test Site (CSLBTS) to prove out the design and identify and resolve problems in order to avoid such problems during actual ship construction which could have caused disruption and delay.

The use of grooming sites, such as the CSLBTS and NAVELEX Charleston; to check-out GFE, inspect equipment to determine proper Condition and Configuration and to install field changes in order to ensure that the GFE was provided to the shipyard in a ready for installation condition. This use of grooming sites has been expanded even further for follow ships.

As should be expected in the construction of a lead ship all problems were not anticipated; however, they were minimized as a result of the above efforts.

**Question 22a.** In 1975, Navy officials testified to the House Appropriation Committee that they expected seven shipyards to bid on the Fiscal Year 1975 and 1976 FFG-7 patrol frigates. Why were Bath and Todd the only bidders?

**Answer.** Stimulating competition had of course been the Navy plan from the beginning of the program. In November 1971, industry was briefed on the program and the forthcoming RFP for selection of the lead shipbuilder and shipbuilder support for the system design phase of the program. Four shipbuilders responded to this RFP in February 1972; including Bath Iron Works, Todd Seattle, Lockheed and Avondale. In April 1972, Bath was selected as the lead shipbuilder (subject to final negotiations) and Todd, Seattle was selected as the second shipbuilder to participate in systems design and also as the alternate lead shipbuilder in the possible event that Bath and the Navy could not reach agreement. In December 1973, the first of two planned presolicitation conferences for prospective builders of follow ships was held. Eight shipbuilders attended. In November 1974, the second presolicitation conference was held. Seven shipbuilders attended. In April 1975 the RFP for FY 75/76 ships was released. In May 1975, in response to Navy invitations to promote a better understanding of the program,

six shipbuilders sent representatives to visit the propulsion and combat systems land based test sites and the design agents facilities. Additionally, the RFP contained attractive provisions such as the then newly revised escalation clause, validated drawings and centrally procured equipments which eliminated much of the usual contractor risk. Nevertheless, only Bath and Todd submitted proposals in August 1975. In general the reasons given by the shipbuilders for not bidding fall into four categories:

Facilities more suited to auxiliary type ships.

Not interested at the time due to the then existing workload.

Cost of proposal preparation would have been too great.

Concern that they could not penetrate the market and provide a proposal that would be competitive with Bath and Todd.

*Question 22b.* Has the lack of competition resulted in higher than expected cost to the Navy?

*Answer.* Higher costs were experienced than were originally estimated early in the program. These increased costs include such items as higher profits which were proposed by the essentially sole source shipyards for the FY 75/76 ships, and the higher labor rates of the yards that proposed. Provision for such costs is now included in our estimates.

*Question 22c.* How did the Todd and Bath bids compare to the Navy's estimate for this work?

*Answer.* For the 9 USN ships eventually awarded in FY 75/76 the contractors originally proposed \$448.8M, the Navy's FY 75/76 budget estimate was \$337M and contracts were awarded for \$424.2M.

*Question 23.* The lack of skilled manpower and inefficiencies caused by large scale hiring of untrained workers are often cited as underlying causes of the Newport News and Electric Boat contract cost overruns. To what extent have manpower problems impacted the FFG-7 program?

*Answer.* Minimal impact has been experienced. Bath experienced some minor problems in building up for construction of the lead ship. However, all three shipbuilders now have adequate manpower resources at the required skill levels available to meet their contractual requirements. To date, all three shipyards have met or bettered their projected manning requirements.

*Question 24.* Please provide a brief description of the Shore Intermediate Maintenance Program (SIMA). What is the current status of this program and how will it impact on the FFG-7 program? What are the estimated full costs of SIMA and what are the estimated savings if SIMA is fully approved and implemented?

*Answer.* The Shore Intermediate Maintenance Activity (SIMA) Program provides the Navy a means to provide meaningful shore duty assignments to its technical ratings which contributes to the retention and enhancement of their skills while accomplishing a significant portion of the Navy's intermediate level maintenance. The Navy has surface ship SIMAs at Norfolk, Charleston, Mayport, San Diego and Pearl Harbor. These activities are manned mostly by military personnel on assigned shore duty and they are augmented by civilian personnel (about 300) for planning and estimating and other similar jobs where continuity is essential. The SIMA Program is essential to the support of the FFG-7 and ships on Engineered Operating Cycles (engineered maintenance requirements).

These SIMA facilities vary widely. They generally consist of buildings and trailers which in general are old and never intended to be used for industrial repair operations. Repair capabilities are limited due to facility and equipment limitations (either equipment not available, or old equipment which will not hold tolerances).

The cost of the SIMA Upgrade in FY 79 is \$9.4M for the first increment of the upgrade at SIMA San Diego. In FY 80, \$19.6M is programmed for the construction of a replacement facility at Mayport which has the worst facility conditions of any of the SIMAs. The outyear SIMA Program is being reviewed at this time.

Estimated savings to be recognized from the SIMA Program will be primarily in terms of cost avoidance. The Navy justification for these facilities has been based on the requirement to have adequate facilities to support the FFG-7, DD-963 and other new ship classes and equipments. The Navy has further emphasized the impact these facilities will have on maintaining and improving the skills of its technicians.

The Navy has programmed for an overall improvement in SIMA operations in the budget based on the expected impact of the SIMA upgrade program. In 1984 this amounts to 470,000 man-hours per year additional SIMA capacity due to upgrade improvements. Failure to complete the upgrade program would result in \$8.49M dollars in FY 1984 alone being expended for contract labor which could have been avoided as shown below :

Contract manhours/year required :	<i>Millions</i>
With SIMA's-----	1.9
Without SIMA's-----	2.37
Contract labor dollars required :	
With SIMA's-----	39.6
Without SIMA's-----	48.09

The estimated impact on the FFG-7's which are to be homeported in Pearl Harbor, San Diego, Mayport, and Charleston would be an increase of some 24,100 man-hours/year being accomplished in the private sector at an additional cost of \$5M.

The Navy must have the upgraded SIMA maintenance facilities if it is to maintain the new ship classes and equipments that it is now receiving. The SIMA concept is a vital part of the Navy's overall maintenance program and the support of the FFG-7.

**Senator PROXMIRE.** The General Accounting Office testified yesterday that the Navy knew at least as early as September of 1976 that the stern would require modification and yet the Navy did not analyze the feasibility of incorporating the modified stern into the first 26 FFG's nor did the Navy contact the shipyards to determine whether the stern modification could be incorporated into the first 26 ships during construction. Now is that correct and, if so, how do you explain and justify the Navy's failure to act?

**Secretary CLAYTOR.** I think that leads to an important factor. We did not know how the stern had to be modified and we did not have the design plans in hand that would enable the shipyard to make the modification and we won't have them in hand until next June. If we had merely a concept and had asked the shipyard—incidentally, I think the first flight contracts had already been let. They were let in February 1976, for the first flight.

One of the things we sure learned, Senator, is that making a major change in a multiple ship contract in the first ship or any ship of the multiple ship contract after the contract has been let, after the price has been fixed, after the manufacturer has gone ahead with his work, should be done only if there is no way to avoid it because that is where the enormous claims arise, and they arise because the manufacturer has his work force lined up, he is going to do these ships one right after the other, and this modification which we didn't have a design for and would have had to design it as we did it which is also a bad thing to do would have caused significant delay and in our opinion the valid claims for delay and disruption would have far exceeded the cost of the work or the cost of doing it later and we resent this as being a terrible thing to do.

Now I didn't make this decision. The decision was made on the first ship, of course, before I even came aboard and the subsequent decisions were made by the project manager but if they had come to me with the experience that I have had in the 2 years that I have been here dealing with these other contracts, I would have vetoed any change, any effort to change the stern on those ships that had already started construction or had already had the contracts let and in fact I would be against doing it on any ship until we have the final design.

Now the present plans are to have the detailed design so it can be costed out accurately and this change will be included in the 1979 ships, but let's see what this does. It does not do all these terrible things.

The ship in its original design will carry two LAMPS I helicopters. Those ships are going to have LAMP I until sometime between 1984 or 1986. The LAMPS III helicopter, I believe, has an IOC of 1984 to 1985. They won't all come out at once, they will come out in small dribbles. It is quite clear that all ships won't get them right away. The first priority will be for the DD-963 class so these ships will be using the LAMPS I helicopter for the first 4 or 5 years of their service. That is a very competent system. The LAMPS III is an order of magnitude better but this LAMP I is not bad.

Our best estimate is that the ships will be in for a couple of months of overhaul every 2 years or so after they are in service. The stern modification to the extent we could do it—now that could be as early as next June when we get the final plans—will require only an additional 4 months added to the 2 months the ship will be in RAV anyway and it is possibly on the order of \$1.3 million.

Now the cost of installing the whole TACTAS—let me make clear that \$1.3 million is the cost for nothing but the stern modification because the whole TACTAS array and the helicopters themselves and the other wiring and control mechanism cannot be installed until the ship comes back for its regular overhaul because they won't be putting it in until the 1984 to 1986 period.

Senator PROXMIRE. Let me just follow up on this a little bit and we can get into some of the details later. In the first place, there is no question about your authority. You said you were not in your present position when the original decision was made but you could have changed that. You had the authority to act if you wished to do so.

Secretary CLAYTOR. Oh, yes.

Senator PROXMIRE. You made it clear that you didn't think you should.

Now let me quote from a letter I have here that I released yesterday to the General Accounting Office dated December 29 to Secretary of Defense Harold Brown. The Navy said, and I quote: "The Navy was aware at least as early as September 1976 that \* \* \* into FFG-7 class frigates would require some amount of stern modification. In fact, the Naval Ship Engineering Center issued a towed array system feasibility study dated September 20, 1973"—1973—"which indicated that incorporating a \* \* \* system into the FFG-7 class frigates could require \* \* \*. In January 1977 Gibbs & Cox performed feasibility studies and developed blueprints. Despite being aware that the frigates could be modified to incorporate RAS and TACTAS, the Navy did not at any time conduct analyses which investigated the economic feasibility of incorporating the modified stern into all of the class frigates," and so forth.

Secretary CLAYTOR. Mr. Chairman—

Senator PROXMIRE. Now that indicates that while you have a very firm and strong conviction that you vigorously expressed this morning, it does not seem to be based on, No. 1, having an economic feasibility study and, No. 2, consulting with the people who are building this to find out whether or not in fact the cost could have been less.

Secretary CLAYTOR. Senator—

Senator PROXMIRE. The fact there would be delays, how long the delays might have been. It would seem on the basis of the GAO finding that you acted without having the information you should have had or without having the consultation you should have engaged in.

Secretary CLAYTOR. Senator, I disagree with a number of the statements in the GAO letter which I saw for the first time yesterday and which we will of course answer in due course, but leaving that aside we don't need a feasibility study to know that in a six-ship contract that has been let 9 months before—the contract for the first flight was let in February 1976. The date mentioned here is September 1976. A change of that magnitude requiring ordering of materials would require stopping of work. We know that, we have been through this. We don't need to do a feasibility study for the perfectly obvious. The NAVSEA people and the project manager understood that fully and knew that it would be an enormous disruption accomplishing nothing because we didn't have the design and we would not have the final design for some time. It depended on things that were being developed in the RAST; that is, the recovery system which was still in the design stage. To make a change that would then have to be changed again when the final design was made would just create the disruption within the shipyard and bring about the additional costs that we have been trying so hard to avoid. I think it is perfectly plain that it would have been a very bad business decision at that time to do this.

Now the earliest that we think we can make a cost effective change is in the 1979 ships and that will be done in the contract that is going to be let within the next several months because we will then have the final design for the changes. The change is very small, \$1.3 million.

Senator PROXMIRE. I am going to ask Mr. Kaufman to follow up on that.

Go ahead.

Mr. KAUFMAN. The GAO testified that the cost of redesigning and modifying the stern will be \$7.2 million per ship.

Secretary CLAYTOR. If I may, I would like to ask Captain Beecher to respond. Now you will find that is not the cost of just the modification but putting in all the RAS equipment.

Mr. KAUFMAN. The cost of putting in the equipment, should they not all be considered as one cost?

Captain BEECHER. I believe that the \$7.2 million that was mentioned yesterday is the cost estimate for installing LAMPS III, TACTAS, the RAST system and the fin stabilizer. This is the cost of installing those systems if they are all done after the ship is delivered and the ship is brought back.

Mr. KAUFMAN. When you say cost of LAMPS III you don't mean the LAMPS III helicopter?

Captain BEECHER. All the shipboard electronics that allows you to process the data from the helicopter, integrate that data with other sources using LAMPS III data.

The same equipment to be installed during construction would cost \$6.1 million. Actually my number was \$8.1 million. I think you were told \$7.2 million. The numbers were comparative; the \$6.1 million if

you do it during construction, the \$8.1 million if you bring it back and do it later. So we are talking about a \$2 million difference.

Just the added inflation that you would have to pay assuming no disruption, just that the work was done later by delaying the ships now under construction, we estimate that to be \$3 million a ship so quite clearly the right way to install the ship under construction is to finish them as they are, bring it back and do it.

Mr. KAUFMAN. Captain Beecher, it is hard to understand how fin stabilizers could be installed in a ship that has been completed, delivered, sent to sea and brought back to the overhaul facility for the same price as they could be installed while the ship is under construction.

Captain BEECHER. We did very well on that design. The ship was originally designed with the exact space and weight and exactly the right place that it would be required to install the fins. The fins are being built integral with a piece of the hull. All we have to do is put the ship in dock, cut out the piece of hull with nothing on either side of it, replace it with a piece of hull that has the fins in it and sail the ship away again. It is a very simple procedure.

Mr. KAUFMAN. Your testimony is that it would cost the same to do that as it would be to put the fins on during construction?

Captain BEECHER. My estimate of the cost to put the fins on during construction is \$789,000 and to do it after is \$870,000, about an \$80,000 or \$90,000 difference.

Secretary CLAYTOR. Mr. Kaufman, could I say that when we were talking about the \$7.2 million it includes the installation of LAMPS III electronics, the RAS and the other materials; that a major part of that material is not yet available, that it could not be done until the time we propose to do it because the IOC for that is 1984 to 1985 and there is no way we could do anything except just the bare stern change and that with the disruption that would result in the yard it would be a very costly thing to do.

Senator PROXMIRE. You hinge all of your positions, if I understand it, Mr. Secretary, on the notion that the design was not ready and would not be for years. Why should it take so long to get a design ready? As I say, in September 1976, almost 2½ years ago, more than 2 years ago, you knew that you were going to have to do this. Now why does it take so long to put a design in shape and with the result, as you say and as Mr. Kaufman has pointed out, you send the ship out, then you bring it back, and then as the GAO testified yesterday you have to have it in drydock for 6 months to a year. You have that delay while it cannot be used and all because the design is being delayed more than 2 years. Why is that?

Captain BEECHER. Senator, may I answer that?

Senator PROXMIRE. Sure.

Captain BEECHER. Indeed we did know then that there would have to be some design changes. At that time the helicopter had not even yet been competitively selected so we didn't know what the change would have to be. It was not until we selected the helicopter, until we evaluated the Canadian experience in landing by helicopters of the size we now knew we had on destroyers that we knew the magnitude of the change that we knew what we had to do. Before that we knew we had to do something.

Senator PROXMIRE. Why didn't you consult with the shipbuilder? Why didn't you find out what the cost was so you would be in the position to make the decision based on all the facts rather than the hunch, the notion that the Secretary has mentioned?

Well, let me just go back to this. Isn't it correct that in September 1976 the lead ship had still not been delivered and fabrication on most of the follow ships had not yet begun?

Captain BEECHER. Yes, sir, that is correct.

Senator PROXMIRE. Then under those circumstances it is clear that if you could have moved more rapidly on the design you would have had an opportunity to have these ships constructed according to the design which they are going to have eventually.

Secretary CLAYTOR. Senator, we could not design it at that time because we didn't have the final design of the equipment that the design of the stern was going to take care of. The helicopter was not selected until I believe last spring.

Captain BEECHER. February.

Secretary CLAYTOR. In addition to that the whole RAST system was really just being designed and it was based upon really a Canadian innovation and it is an extraordinarily good development that enables you to pull the helicopter down on a pitching ship without having to hit and bounce. The Canadians developed it but how that could be altered to fit the new LAMPS helicopter which we had just decided on this last spring and how it could be designed to fit into this ship were something that took a while to determine and if we went ahead and made those changes by guess and by God, you would probably have just hauled us across the coals for it because we would undoubtedly have—

Senator PROXMIRE. I am asking why it takes years to develop a design.

Let me also ask this. The Navy has repeatedly pointed to the 2-year separation of time between the lead and first follow ship so that lessons learned on the lead ship could be incorporated into later ships.

Secretary CLAYTOR. Yes, sir.

Senator PROXMIRE. The Navy says this is an application of the "fly-before-buy" concept to shipbuilding. Here is what Assistant Secretary Hidalgo told the House Armed Services Committee on April 7, 1978, and I am quoting:

Finally, the FFG program is structured so that a sufficient time interval was allowed between the lead and first follow ship so that completion of specific work on the lead ship permitted feedback and resolution of problem areas and detailed design corrections to be made before construction began on the same portion of the first follow ship. This approach to scheduling allows the construction of follow ships on an overlapping schedule, thus avoiding obsolescence and production breaks, and yet providing a proven design to the follow builder.

Then this is what you said, Captain Beecher, and wrote in U.S. Naval Institute Proceedings in March 1978:

The *Oliver Hazard Perry* (FFG-7) class frigates are the first to be built to the "fly-before-buy" concepts developed in the early 1970's. One doesn't "fly" a ship, of course, but the FFG-7 herself can almost be regarded as a prototype because of the 2-year gap between her completion and that of the second ship in the class.

Now how can the Navy say these things and then fail to do what it says? Isn't the plan to begin retrofitting a new stern into the completed ships in 1985 inconsistent with the "fly-before-buy" concept? Why not?

Secretary CLAYTOR. Senator, I think I can answer that.

Senator PROXMIRE. You express it so clearly and plainly here.

Secretary CLAYTOR. Yes. One reason it is not inconsistent is that you must remember that a ship, even a small ship like this, takes 5 to 6 years to build. In that time technology changes and there are bound to be improvements that will be cost effective that have to be retrofitted later as those technologies are developed. During the course of the ship's construction you are faced with the question of whether it is better to stop the construction, put the new thing in then or finish the construction and backfit. If, as in this case, the design of what we need—

Senator PROXMIRE. Let me just interrupt, Mr. Secretary. How can you tell what to do if you don't even consult with the shipbuilders?

Secretary CLAYTOR. We are working day to day with the shipbuilders.

Senator PROXMIRE. The shipbuilders say they don't know about this stern retrofitting until 2 years afterward. Mr. Harvie testified to that yesterday. Nobody told him.

Secretary CLAYTOR. Captain Beecher.

Captain BEECHER. I didn't consult with the shipbuilders on the specifics of the change to the stern for the ships under construction because I knew that it would be disruptive to their production of the ships they are now building. I did not know the magnitude of the disruption, but I knew that I was dealing with a \$2 million difference, and I knew that the magnitude was much larger than that and it was not necessary to consult with them.

Senator PROXMIRE. So you concealed it from the shipbuilders.

Captain BEECHER. No sir, I did not conceal it from from the shipbuilders.

Senator PROXMIRE. You didn't tell them; they didn't know about it.

Captain BEECHER. I believe they knew about it.

Senator PROXMIRE. You knew about it but they told us they didn't know.

Now, according to the GAO as of October 1, 1978, fabrication on 12 of the first 26 ships had not yet begun so it is undeniable that the stern has to be modified to accommodate the LAMPS III helicopters. Wouldn't it be more economical and less costly to the taxpayer to order work you know has to be done during construction rather than building them wrong, which is what you are going to do—you build them wrong deliberately, send them out, and then recall them for repairs. Of course, when they are recalled for repairs, they are out of action for half a year to a year, and meanwhile you have a ship that can't perform its mission.

Captain BEECHER. Senator, no; that would not be wrong. If I were to build those ships today, taking all the delay and disruption which I estimate to be up to 18 months for each ship and put all the LAMPS III equipment in those ships that I could get my hands on, then I would be sending those ships out without any ASW capability at all because then they could not operate with the LAMPS I helicopter, and I think that is a significant point that we overlooked yesterday and today.



I would rather send them out with the best ASW helicopters in the free world today than none at all. That is the choice.

Senator PROXMIRE. Now, GAO says it first learned about the stern redesign last September—this last September—2 years after you knew about it. This is surprising because the GAO has been preparing reports on the FFG each year for the past several years. Why did the Navy fail to inform the GAO and the Congress about this problem? Why didn't you tell us?

Captain BEECHER. Senator, on the first selected acquisition report in March of 1973, we told the Congress that space and weight would be reserved in the ship for the LAMPS III helicopter. We did not know.

Senator PROXMIRE. That does not mean reconstruct the stern, does it?

Captain BEECHER. We didn't know what the helicopter was then. We didn't know we would have to make minor changes to the stern until we selected the helicopter.

Senator PROXMIRE. You have the submission of the delay.

Captain BEECHER. Senator, the reconstruction of the stern is a gross overstatement of what is being done. What we are doing is a minor modification to the stern. It is now strong enough—the flight deck is strong enough—the flight deck is big enough to handle the LAMPS III helicopter and put in hangars of the FFG-7, a full-scale mockup of this helicopter—

Senator PROXMIRE. Let me get into that. When did the Navy make the decision to redesign the stern?

Captain BEECHER. We made our decision to redesign the stern in March of 1978.

Senator PROXMIRE. March of what year?

Captain BEECHER. March of 1978.

Senator PROXMIRE. Explain what is involved in redesigning the stern, whether this is a minor modification or if extensive teardown work and reconstruction is involved.

Captain BEECHER. Yes, sir. There are three essential elements. One is putting in the hauldown system and the tracks associated with it where it moved the helicopter from the flight deck into the hangar. The second part is rearranging below the flight deck, some nonstructural bulkheads to take this general space and weight reservation that we have and tailor it specifically for the equipments that we now know have to go there. Thirdly, for safety of flight, putting a little platform on the stern below the level of the flight deck to put the bits and chocks and capstan and so forth so we have a clear flight deck so there is no danger of obstruction.

Senator PROXMIRE. Where is the work planned to be done and how long will the ships be in drydock or out of action during the work?

Captain BEECHER. We anticipate that the total backfit would require 6 months, which is a 4-month extension of the original planned 2-month period that the ship will be in RAV anyhow. We will just take that 2-month availability and extend it.

Senator PROXMIRE. It is not 2 months. it is 6 months.

Captain BEECHER. It is an additional four on the existing two.

Senator PROXMIRE. This is not what the GAO said in its letter to Secretary Brown. They said the FFG-7 program could result in each ship being drydocked 6 to 12 months or longer, thus reducing each ship's availability.

Captain BEECHER. Our estimate is 6, Senator, and it is 6. She will be in for 2 months anyway and we extend it to make it 6.

Senator PROXMIRE. The GAO says that the Navy's "best guess" estimate of the costs of redesigning the stern is \$7.2 million per ship. Now I understand that is a—I was not familiar with this classification before. Maybe I would not have so much trouble with the overruns if I knew it and we could all be retired but that is known as a class of estimate.

When will the Navy make a budget quality, class "C" estimate and is it correct that the costs will be at least \$13 million per ship rather than \$7 million per ship?

Captain BEECHER. No, sir. The \$13 million per ship in constant fiscal year 1979 dollars is the cost of buying and installing all of the equipment associated with the LAMPS, TACTAS, and RAST.

Senator PROXMIRE. That is what the taxpayer has to foot.

Captain BEECHER. Right, the number 7.2.

Senator PROXMIRE. Yes, sir.

Captain BEECHER. It is just the installation, it does not include the cost of the equipment, and that number we believe now to be probably close to 8.1.

Senator PROXMIRE. Then what is the total number properly, 13? Is that correct, including all of the equipment?

Captain BEECHER. The buying of the equipment. Designing the stern and installing the equipment in the ships in fiscal year 1979 is \$13 million during construction.

Senator PROXMIRE. Now the latest selected acquisition report, the SAR, for the FFG shows unit costs of \$195 million per ship and program costs of \$10.1 billion for the 52 ships. Are the costs of modifying the stern included in those figures, the cost of this equipment that you just referred to?

Captain BEECHER. For the fiscal year 1979 and beyond the second 26 ships, yes, it is. For the backfit of earlier ships, no, it is not.

Senator PROXMIRE. I want to know if it is included in the \$10.1 billion. Does the \$10.1 billion include this additional cost?

Captain BEECHER. For the 26 ships not contracted, yes. For the 26 under construction, no.

Senator PROXMIRE. The 26 under construction, no. So that would mean that if it is 13, it is 13 times 26—maybe \$300 million or \$400 million in addition then to the \$10.1 billion. That goes up by whatever that amount is. I calculate about \$300 million or \$400 million.

Captain BEECHER. That is about right.

Secretary CLAYTOR. Mr. Chairman, I think one reason for leaving it out, it is not an SCN, ship construction, Navy, account. The SAR's are ship construction accounts and this is not a ship construction account when it is done in overhaul.

Senator PROXMIRE. What does that mean?

Secretary CLAYTOR. Don't ask me to justify this.

Senator PROXMIRE. I am not asking you to justify it, I just want to know what it is going to cost the taxpayers.

Secretary CLAYTOR. Yes.

Senator PROXMIRE. What is the net figure? What is the bottom line?

Secretary CLAYTOR. If you wanted to add the additional cost of the overhaul—

Senator PROXMIRE. That is right.

Secretary CLAYTOR. For the 26 ships under construction it is 26 times \$13 million or about \$300 million.

Senator PROXMIRE. All right.

Secretary CLAYTOR. But we didn't try to mislead Congress or do this wrong. That is the way we are required to do these things.

Senator PROXMIRE. That is right.

It is correct to assume that if costs rise about \$7.2 million per ship that the SAR estimates will have to be revised upward?

Captain BEECHER. Our current estimate for the installation of all of those equipments after delivery is 8.1 in fiscal year 1979 dollars. That includes everything.

Senator PROXMIRE. And the \$13 million includes the installation and cost of equipment?

Captain BEECHER. Yes, sir.

Senator PROXMIRE. What about the costs of a redesigned stern for the second 26 ships, those that are planned but not yet under contract? Are those costs included in the SAR?

Captain BEECHER. Yes, sir.

Senator PROXMIRE. How do you explain the increase from \$65 million which was the estimate in 1973 to \$195 million in 1978—

Secretary CLAYTOR. Can I run through that?

Senator PROXMIRE [continuing]. And the \$7 billion cost overrun on this program?

Now we figured and the GAO confirmed it that inflation could account for about a third of that increase, so what is your explanation?

Secretary CLAYTOR. I would like to run through the figures but I would like to start with the designed cost, not \$65 million but \$45.7 million which is the design in 1973 and that was fiscal year 1973 dollars.

The \$65 million came from a then estimate of escalation for the next something like 4 years. It was added on to 45.7. It was done on the estimated basis of 4.25 percent a year inflation and that sort of thing and I think we ought to leave that out. Let's see what happened to the 45.7.

Senator PROXMIRE. Before we get away from that, the \$65 million did include some inflation.

Secretary CLAYTOR. Yes, it did.

Senator PROXMIRE. But the inflation, that was included at about what level?

Secretary CLAYTOR. About \$12 million worth as I recall.

Senator PROXMIRE. At what rate per year?

Secretary CLAYTOR. I think it was on the order of 2 percent.

Senator PROXMIRE. Two percent a year?

Secretary CLAYTOR. Yes. It was the past experience in the sixties.

Senator PROXMIRE. Even that would reduce the one-third estimate we had yesterday which was the total amount for inflation. That would cut it down considerably.

Secretary CLAYTOR. Let me run down the figures. The \$45.7 million, the first ship was a cost-plus ship under this system and the Navy had to estimate what builders would be interested, what kinds of bids they would make, and also estimate from scratch at the start the cost of a whole lot of new equipment that had not been ordered new. The Navy included or should have added \$17.5 million to the estimated design to cost goal because they underestimated.

Senator PROXMIRE. They underestimated what?

Secretary CLAYTOR. The goal, the design to cost goal, what the ship would actually cost in 1973 dollars.

Senator PROXMIRE. So the Navy made an initial estimate per ship of \$17 million.

Secretary CLAYTOR. That is right.

Senator PROXMIRE. And they obviously made a gross underesitmate of the inflation. I don't know how anybody in 1973 could have estimated we would have 2 percent inflation over the next 10 years.

Secretary CLAYTOR. Let's take this \$17.4 million.

Senator PROXMIRE. That was not the experience in 1970, 1971, 1972, 1973. We had much greater inflation.

Secretary CLAYTOR. Whatever they were saying. I won't justify anybody's guess as to what inflation was going to be, it had to be a guess. This was just before the oil embargo.

Now that \$17.4 million was partly as a result of the economic dislocation that did occur immediately in 1973 after the oil embargo and partly a bad estimate of how many shipbuilders were going to be interested in building on this and the competition was reduced.

Senator PROXMIRE. Let me interrupt. The reason I am getting at this, one of the problems in the cost overrun when the Navy or Army or Air Force comes in with a weapon system, they make an estimate. The Congress buys it on the notion that on that price it is good buy, the higher price it would not be. So we get sucked in and three underestimates, these gross mistakes are what trap us into getting weapon systems that we cannot justify.

Secretary CLAYTOR. I understand. I think that in the last 3 to 5 years we have had outside consultants and have done an in-depth job on estimates. Estimates have to be guessed when you are dealing with something new that has not been built but we ought to do better than we are doing, and I think we are doing better. Let's move along.

In addition to the \$17.4 million underestimate, the various reasons that we can justify but when that took place there were changes made in the ship. Now one reason the first ship was being done on the cost-plus basis was that you have to check some of your designs as you build since it is a brand new thing.

There was another \$12.5 million—still in 1973 dollars—of additional changes that were made in the FFG-7 and they included the fourth ship service generator which caused some delay because it had been thought initially that you didn't need but three and then they got into it in more depth and that caused some delay in the ship. We then made space for the LAMPS III—space and weight for LAMPS III, Tactas and so forth and those changes were made in the first ship, the lead ship, and they are included in the \$12.5 million. That caused a delay in the schedule and there was also a delay in the schedule of the first ship that resulted from the 1973-74 prices that we had in material, including castings.

I don't know whether you remember, Senator, but in the railroad business we could not get a casting in 1973 to 1974 and a number of castings were required here. So there was significant delay, and when there is delay there are additional costs and there was about \$4.2 million of additional delay cost. So if we get to the end of that and add

those up, we find that the 1973 dollar cost of the FFG-7 was just on the edge of \$80 million, 79.8, for those reasons.

Now where do we go from there? I am working up to the cost of \$192.7 which is what I have for the fiscal year 1979 ships. Inflation from 1973 to 1984, because you take the inflation on Government-furnished equipment all the way through to the last time you have to buy, so inflation 1973 to 1984 is an additional \$90.9 million. That is all the way from 1973 to the start of the ships in 1979 and then during construction of the ship in 1979 to take care of material that is going to be bought later.

Then in addition to that, Senator, there is \$22 million of additional inflation which is included in the escalation clauses of the contract. That is to say, pending construction of the ships an additional \$22 million in inflation is covered by the contracts and that is standard. All of that then in then year dollars and that is what we let contracts on, that is what we budget on. In then year dollars for the fiscal year 1979 flight of eight ships the average cost for eight ships to be let in this year is \$192.7 in then year dollars. That means dollars in 1979, 1980, 1981, 1982, and 1983 up until the ship is finished and then all but \$79.8 million of that is inflation.

Senator PROXMIRE. Well, what you have done is you have made a gross misestimate. You say \$17 million.

Secretary CLAYTOR. \$17 million was the—

Senator PROXMIRE. Per ship.

Secretary CLAYTOR. That was the estimate at the start.

Senator PROXMIRE. Of course it is a very large amount and—

Secretary CLAYTOR. It is a lot, that is right. That was back in 1973.

Senator PROXMIRE. Now you project inflation up to 1984 at a much higher rate, a much more honest and realistic rate.

Secretary CLAYTOR. Excuse me, sir. We projected at the rate that is ordered by the Department of Defense.

Senator PROXMIRE. I have no complaint about that.

On the other hand, let's look at the helicopter as a part of that weapon system, too, and a vital part. Obviously without it you don't have a weapon system.

Secretary CLAYTOR. That is right but we do have—

Senator PROXMIRE. The SAR for the LAMPS III shows no increase in program or unit costs since 1969. In fact, it shows a slight decrease and no escalation. Why is there so much inflation in the FFG and none in LAMPS III?

Secretary CLAYTOR. I am surprised to hear you say that, Senator, and I just don't have the data in front of me but LAMPS III has gone up. We got enormous criticism from the Congress because LAMPS III has been multiplied by 4 or 5.

Senator PROXMIRE. I have in front of me some classified total LAMPS cost, development cost, for fiscal year 1969 of \$3.9 billion and the current estimate of \$3.5.

Secretary CLAYTOR. I think it is a whole lot fewer number of planes. I suspect the answer is that is program cost and that is not unit cost. We have them cut back.

Senator PROXMIRE. Don't you have two helicopters per ship?

Secretary CLAYTOR. Like the planes for a carrier, the helicopters for these ships are pooled in a sense, they are not permanently assigned as part of the ship. They are sent out when the ship is deployed and needs a helicopter and we have a pool of them. Frankly, Senator, I would appreciate your help in getting more LAMPS III helicopters. We need more.

Senator PROXMIRE. All right, we will take the unit costs. The unit costs have not changed either. The unit cost has gone down from \$10.784 to \$9.59 million.

Secretary CLAYTOR. I will have to supply this for the record.

Senator PROXMIRE. According to the SAR, that is the only information we have.

Secretary CLAYTOR. I think there is something wrong with it, Senator, but I cannot deal with it because I don't have the data here.

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

The total LAMPS Mk III program costs of \$3.9B reflected both sunk and estimated costs at the time of DSARC IIC in February 1978. The current estimated is \$3.5B. The program unit costs of "retrofitted" ship systems was \$10.78M in February 1978. The latest estimate is \$9.590M.

Senator PROXMIRE. The unit cost is down.

We are happy to have a new Senator with us this morning who is going to sit in with us. We are honored to have Senator Warner.

Secretary CLAYTOR. Yes, sir.

Senator PROXMIRE. He is not only a distinguished Senator but a great expert in this, having served, as you all know, in the Defense Department with distinction. We are delighted to have you.

Senator WARNER. And I participated in some of those alleged errors under review today.

Senator PROXMIRE. I don't know if you all heard that. He said he participated in some of those errors.

Very good. We appreciate that.

Now, the Navy has said it plans to backfit a number of items into the FFG and that the costs will be about \$24 million per ship. Tell us briefly what will be backfitted, when the work will be done, and whether these costs have been included in the SAR.

Captain Beecher.

Captain BEECHER. Yes, sir. The equipments to be backfit are TACTAS starting in fiscal year 1985, LAMPS III starting in fiscal year 1985, CIWS starting in fiscal year 1983, the hauldown system starting in 1985, and the intership data link starting in fiscal year 1981 and fins starting in fiscal year 1985. The \$24 million for those equipments include the costs of the equipment and installation which includes that \$8.1 million which is the cost of installation for LAMPS, RAST, TACTAS, and fins.

Senator PROXMIRE. That \$24 million includes the stern redesign?

Captain BEECHER. Yes, sir.

Senator PROXMIRE. It includes all the equipment involved in the stern?

Captain BEECHER. And all these other equipments as well.

Senator PROXMIRE. And included in the SAR?

Captain BEECHER. The CIWS is included in the SAR starting in 1976, for the fiscal year 1978 ships and beyond.

Senator PROXMIRE. GAO says it is not included.

Captain BEECHER. I think they were in error yesterday, sir.

Senator PROXMIRE. You think they were wrong?

Captain BEECHER. Yes, sir. I prepare the SAR.

Senator PROXMIRE. They say \$15 million to \$20 million is not included in the SAR.

Captain BEECHER. For some ships it is not, for some ships it is. I was starting to tell you that.

Senator PROXMIRE. What is and what is not?

Captain BEECHER. From fiscal year 1979 on fins, TACTAS, LAMPS III, RAST, and LINK II are included in the SAR for ships. Prior to that it is not.

Senator PROXMIRE. How much will it cost with all the factors? Can you give us an overall global factor? That is what the SAR is supposed to do so we know what we are doing.

Captain BEECHER. It is the same figure we dealt with a few moments ago, 26 ships times \$24 million. Roughly \$620 million.

Senator PROXMIRE. But our problem is what is in the SAR and what is not.

Captain BEECHER. That is our mutual problem. I put in the SAR what is funded by SCN because that is what I have to do.

Senator PROXMIRE. If you don't know it, nobody knows it. Can you go over that and give us as much as you possibly can so that we know what the total cost is? We don't want to duplicate these costs, and if we simply take the total figure and add it, that is what we are going to be doing there.

Captain BEECHER. Let me simplify it a little bit and deal with the first 26 ships because all of these things are in the SAR for the second 26 ships.

Senator PROXMIRE. We know the cost is more than \$195 million.

Captain BEECHER. That is approximately the average cost of the eight ships in fiscal year 1979, and that includes all of these things that we have been discussing.

Senator PROXMIRE. We wanted the 52d ship.

Captain BEECHER. The total program cost is 10 point something billion dollars that is in the SAR which includes all of these equipments in the last 26 ships and it excludes about—I am trying to factor this because that is in some of the earlier ones. It probably averages \$23 million that is not properly reported in the SAR.

Secretary CLAYTOR. The reason it is out, Senator, is because it is in a different budget account.

Senator PROXMIRE. Give us the most up-to-date figures that you can so that we have that when we make our report. Will you do that?

Captain BEECHER. Yes.

Senator CLAYTOR. Why don't we submit it. We will submit it promptly.

[The information referred to follows:]

The estimated total program acquisition cost shown in the 30 September 1978 Selected Acquisition Report for the 52 ship FFG-7 Class Program is \$10,124.8 million. This estimate does not include costs associated with backfit of systems

through the Fleet Modernization Program (FMP). The estimated cost to procure and install the following systems through the FMP is \$698 million in then-year dollars.

System	Number of ships <sup>1</sup>	Installation years (fiscal) year
TACTAS.....	26	1985-87
LAMPS III shipboard electronics.....	26	1985-87
RAST.....	26	1985-87
CIWS.....	18	1983-85
Los cost data link.....	26	1981-85
Fin stabilizers.....	26	1985-87

<sup>1</sup> Fiscal year 1978 and prior.

Senator PROXMIRE. How do you explain the incomplete reporting in the SAR? The SAR is supposed to contain the full cost of the program. The Congress has to be informed. Why doesn't the SAR keep us fully informed?

Secretary CLAYTOR. Senator, the instructions we have—we do this with instructions, this is not something we strike up. The SAR includes SCN account funds and no EOM funds. That is, no maintenance funds. When a ship is backfitted, the Navy instructs us to use O. & M. funds. We can compute what it is if you just want to create a figure, but if we included it in the SAR, we would be violating the instructions of what we have been told to do.

Senator PROXMIRE. Don't include the SAR. When we look at the cost, if it is less we say, all right, go ahead. It may require a decision on the part of the Congress and they may decide to go ahead because the cost is lower.

Now, on the lead ship the Navy has repeatedly boasted that the *Perry*, the FFG lead ship, was delivered ahead of schedule, yet it was 8 months late and \$57 million above the original cost estimate. The original contract delivery date was extended twice before actual delivery so isn't this a phony way to keep score?

Isn't that like my experience with an airline the day he was trying to find Washington and postponed and postponed, and finally they came in 2 hours late; they said, "We told you before we landed we were going to be under that time and we were on that time." Isn't that what the Navy is doing here, changing the date as you go along? The original contract date was 8 months. You were 8 months late.

Secretary CLAYTOR. The reason it was late that 8 months was that changes were made and the shipyard was not behind. We felt that the changes made required the extra 8 months.

Senator PROXMIRE. That is fine; I have no argument with that. I think it would be perfectly proper to say the shipyard is not responsible, the Navy is responsible. You were late. Whether it is some other exercise made by somebody else, the fact is you were late.

Secretary CLAYTOR. Would you have had us skip developments that the ship needed in order to stay on schedule?

Senator PROXMIRE. No, sir.

Secretary CLAYTOR. All right.

Senator PROXMIRE. There is a reason for being late, but you were late.



Secretary CLAYTOR. It is inherent in the building of ships that you have to make changes if someone discovers something that creates a tremendous new capability. You accept the delay and incorporate it.

Senator PROXMIRE. I don't argue with that. You may very well be right in doing so but I think you have to acknowledge under those circumstances that you were late. The reasons for your being late may be good or bad.

How do you explain the delivery delay and cost overrun on the lead ship and who is primarily responsible, the Navy or the shipbuilder? I take it the Navy was.

Mr. HIDALGO. There were two strikes during that same period.

Senator PROXMIRE. The GAO told us about that. I think in the aggregate that was about a 6-week delay there, is that right? Six weeks?

Mr. HIDALGO. Of course what we are addressing here is the fundamental reason why on the lead ship on a new design like this you go on a cost-plus basis. As you know, in our naval procurement process study that we submitted to you last July, the concept of schedule which can increase your cost enormously is a very different thing in the lead ship than with the follow ships. Let me emphasize, Senator, that on the follow ships, both at Todd and Bath, we are totally on schedule and within costs.

Senator PROXMIRE. Mr. Hidalgo, on February 7 testifying before the House Armed Services Committee you said that the FFG-7 program is an example of such improved contracting techniques that the *Oliver* has been completed by the shipbuilder ahead of the schedule agreed to by the Navy within the appropriate funds.

Mr. HIDALGO. That is correct.

Secretary CLAYTOR. That schedule was agreed to by the Navy.

Senator PROXMIRE. And it was three times as high?

Mr. HIDALGO. Yes. Much of it was delayed by the shipbuilder being unable to complete the ship because of factors that were perhaps beyond his control but not the Navy's fault, things like shortages of equipment. This didn't happen here.

When I say it was on time, I meant in accordance with the schedule agreed by the Navy.

Senator PROXMIRE. You said the strikes were 8 or 9 weeks and at least the major element in this delay.

Mr. HIDALGO. Yes.

Senator PROXMIRE. I see no reason why there are times when changes may be justified or responsible for delay but it is a delay. It is not delivered at the time we are told it was to be delivered.

Mr. HIDALGO. But it was delivered at the time the Navy agreed it should be delivered.

Senator PROXMIRE. I am told the stern modification will add 45 tons to the weight of the ship, is that correct, and, if not, tell us how much weight will be added.

Captain BEECHER. Yes, sir, that is correct.

Senator PROXMIRE. That is correct. How much more weight can the ship carry before it encounters problems in its capability in general?

Captain BEECHER. The ship was designed with two kinds of growth margin and this was sort of overlooked yesterday. The ship was

designed with space and weight margin specifically to take these characteristics changes that we are putting into the 1979 ships—LAMPS III, TACTAS, the Link 11, the fins, and the helicopter landing system. Over and above those changes and when all those changes are in the ships, the ships will still have a 50-ton margin for additional, now unspecified or unknown, growth before they come close to any of the structural weight limitations.

Senator PROXMIRE. Yesterday, the testimony by Mr. Stolarow, the Director of the GAO, was that what happens is that you need a greater weight margin than you are likely to have in this case because, as the time goes on, 15, 20, 25 years past and, of course, the ship is expected to have a life of 25 or 30 years, the technology changes and you have to incorporate those changes into the ship.

He argued that this narrow weight margin is going to reduce the life of the ship, perhaps cut it in half and in the 25 years' expected life, you could lose half of that, 12 years, and of course at a considerable cost.

Captain BEECHER. Yes, sir.

Senator PROXMIRE. What is your answer to that?

Captain BEECHER. I also heard Mr. Harvie very eloquently tell you that one of the major causes of displacement change in a ship when she reaches her modernization point is that requirement to add more power because, generally, we find that you do not put enough basic primary electrical power in the ships. We accommodated that with a 3-month delay in delivery of the first ship by putting 1,000 more kilowatts in that ship as delivered so we build in that piece.

Senator PROXMIRE. So that your answer can include this point because I want to be a little more specific on it. According to GAO past experience, it has shown a need for a service life weight margin of about 150 tons for a ship the size of the FFG-7.

Now that specific weight margin was not formally directed or approved by the Chief of Naval Operations. On the FFG-7 figures, that is only 50 tons, only a third.

Now, why does the Navy believe that the margin for this type of weight program can be so much lower than in the past?

How does the Navy propose to control the situation?

Captain BEECHER. Two reasons. One we have already put in the significant weight growth associated with the additional power and, second, in any other ship, that 150 tons would have to accommodate all the weight growth associated with LAMPS, TACTAS, fins, which we put in exclusive and in addition to the 50 tons.

Third, and I believe Mr. Harvie testified to this effect yesterday also, that the changes you make in the weapon system of a ship are the replacement of something obsolete with something better so that any weapon system that would be changed in the ship, the old one would be taken off, the new one would be put on.

The way technology is going, those things are getting lighter all the time. We believe it is an adequate margin.

Senator PROXMIRE. Let me get to the most troublesome of all of your ship, that is, survivability, the cheap shot. The 1975 Navy shows the FFG to be level NB thrust. A rifle shot could put it out of commission, a grenade fragment.

Does this mean the ships would be subject to cheap kills and how does this differ from highlight?

Captain BEECHER. Yes, sir, I think all ships probably could be subject to some kind of a cheap kill. As you were told yesterday, we are putting kevlar armor around the singularly vulnerable space of a ship.

As I recall, Jerry waved a piece of the kevlar cloth indicating that that was the armor.

Senator PROXMIRE. One of the things we did with this—this is what was given to us—we tried hitting it with a pencil and the pencil went right through it.

Mr. HIDALGO. Yes.

Senator PROXMIRE. I said this was like what Dan Pastorini used in the other war when he was playing in the playoff game against the Patriots, he must have worn something tougher.

Captain BEECHER. That piece of cloth is a bit misleading. The armor is that thick. It is several sheets of that cloth in a resin adhered to the normal aluminum bulkhead of the ship, the superstructure of the ship, and this is a section of it here.

You will see the five holes in the aluminum. Each of those had been shot into—at 4,000 feet per second—with a pellet which is the average size of a fragment that you could expect to get from a bomb or a projectile or even a bullet.

Senator PROXMIRE. Can we get—

Captain BEECHER. This is one of the fragments.

Senator PROXMIRE. Can you provide the subcommittee with something like that?

Captain BEECHER. Yes, sir. That is the fragment that was shot into it. When it is stopped by that it looks like this.

Senator PROXMIRE. What is the size of that?

Captain BEECHER. 240 grains, I believe, Senator.

Senator PROXMIRE. What does that mean in caliber? Can you give us that?

Captain BEECHER. No, I cannot. I think it is the average fragment size that you get from the kinds of weapons that would be fired against the ship. They are all still in there. Every one of those that were shot into this from 30 feet away at 4,000 feet per second were indeed trapped and you can feel them in there. The armor works.

Mr. HIDALGO. Senator, that armor is being put in all the existing 26 ships.

Secretary CLAYTOR. All ships.

Senator PROXMIRE. The GAO says using kevlar you were not going to be able to protect all of your extensive equipment. What is your answer to that?

Secretary CLAYTOR. You cannot protect all your extensive equipment on any ship, including an aircraft carrier. You do the best you can and I think this is quite satisfactory. It is going to cover essentially the key electronic control points, CIC and that type of thing.

The radar antennas have to be out in the open and if a shot carries away the antenna, it does.

Senator PROXMIRE. Are you saying that this is as well insulated against a cheap kill as an aircraft carrier?

Secretary CLAYTOR. No. For one thing, the aircraft carrier is enormously large and one of its greatest protections against the kill is that

it can absorb enormous punishment that no small ship can absorb but I think for a ship of this size this is a very survivable ship.

For one thing, one of the most survivable points is that the Phalanx is particularly designed to knock out low-flying missiles and the Phalanx as I mentioned earlier in my statement is one of the finest developments that has been developed anywhere in the world. We also have the 76-millimeter gun and we have the standard missile.

Senator PROXMIRE. You are telling us the original design was not as survivable by any means, as vulnerable?

Secretary CLAYTOR. The addition of CIWS which at the time the ship was first designed had not been perfected and the addition of the armor around the vital points are two things which have been done to improve survivability. I think they do a good deal.

Senator PROXMIRE. What you are saying, then, is that the original design was defective in that it did provide for a cheap kill, it did not protect.

Secretary CLAYTOR. It had the standard missile on it all the time which is one of the most effective defensive weapons that anybody has developed in the world.

Senator PROXMIRE. There were two instances during the Vietnam war in which a rifle shot fragment knocked the ships out and made them unusable.

Can you provide any details of those instances?

Captain BEECHER. That is classified, Senator.

Senator PROXMIRE. Classified.

GAO says many other ships have a survivability problem. How widespread is this problem and how does the Navy plan to take steps if that is unclassified?

Secretary CLAYTOR. I think this is an ongoing problem. I think survivability is an issue with respect not only to new ships but with respect to existing ships that we have under study in the Navy Department all the time.

Senator PROXMIRE. Now, the 1978 FFG report of the GAO discusses the Navy's plan to use kevlar to increase the ship's survivability. How much will that cost?

Captain BEECHER. I expect it to cost \$600,000 per ship which is already funded in the SAR.

Senator PROXMIRE. That is included in the SAR.

Secretary CLAYTOR. Yes.

Senator PROXMIRE. \$600,000 per ship will be \$30 million.

Captain BEECHER. It is already in the SAR, Senator.

Senator PROXMIRE. Is it correct that kevlar is flammable, gives off smoke and toxic gases when burned?

Captain BEECHER. Senator, I have built a compartment of the ship, one of the magazines, and I have lined it with kevlar. I set a fire in that compartment, Senator, that reached a temperature of 750 degrees centigrade and, indeed—well, let me tell you something else: Outside of this kevlar, I also lined the ship with a fire retardant felt to create flame boundaries so we don't melt the ship. Aluminum melts at 600 degrees centigrade.

I had a 750 degree fire in the compartment and I could not detect any toxic gases being given off by the kevlar.

Senator PROXMIRE. How long was it exposed to that heat?

Captain BEECHER. One hour. I don't think a man would have been breathing much in there where he would have been bothered by toxic gases even if they were given off. In a chemical laboratory, you can burn one strand of fiber at 200 degrees centigrade and detect noxious fumes, but it is an academic exercise.

Senator PROXMIRE. This is part of the kevlar tests that were scheduled for completion in February 1978. Have they been completed?

Captain BEECHER. Yes.

Senator PROXMIRE. Can you give us a report on that if it is not classified, or is it classified?

Captain BEECHER. I believe it is partially classified.

Senator PROXMIRE. Give us a sanitized version.

Captain BEECHER. A sanitized version for the record?

Senator PROXMIRE. Yes, sir.

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

DEPARTMENT OF THE NAVY,  
NAVAL SURFACE WEAPONS CENTER,  
Dahlgren, Va., September 27, 1978.

From: Commander, Naval Surface Weapons Center.

To: Commander, Naval Sea Systems Command, Attn.: LCDR W. Humphreys (Code PMS-399), Washington, D.C.

Subject: FFG-7 Survivability, Vital Compartments Test Program; Executive Summary Reports for.

Re: (a) NSWC CONF Report "FFG-7/CG-26 Arena Test, Sequence No. 1D.

1. In accordance with the request of PMS-399 made at the program review, 2 August 1978, brief summaries have been prepared for the various areas of work. Enclosure (1) schematically outlines the overall approach for the FFG-7 Class Vital Compartments Test Program. Enclosure (2) through (5) summarize the results of the test program.

2. A KEVLAR-Reinforced-Plastic (KRP) armor which employs a polyester resin containing 5 percent by weight antimony oxide flame retardant was proven to provide the best overall tradeoffs in ballistic protections, fire resistance, cost and fabricability (enclosure (2)).

3. The best fire shielding material was a refractory felt material at a bulk density of 4 lb/ft<sup>3</sup>. This material can replace the existing fiberglass hullboard thermal insulation with only a slight weight penalty but performs significantly better at high temperatures and under direct flame impingement (enclosure (3)).

4. Quarter scale tests with the above KRP/Refractory felt system showed that a severe fire level was required before toxic combustion products could be determined. A sub-scale fire scenario was selected which predicted that the selected armor/insulation system would be acceptable for shipboard use (enclosure (4)).

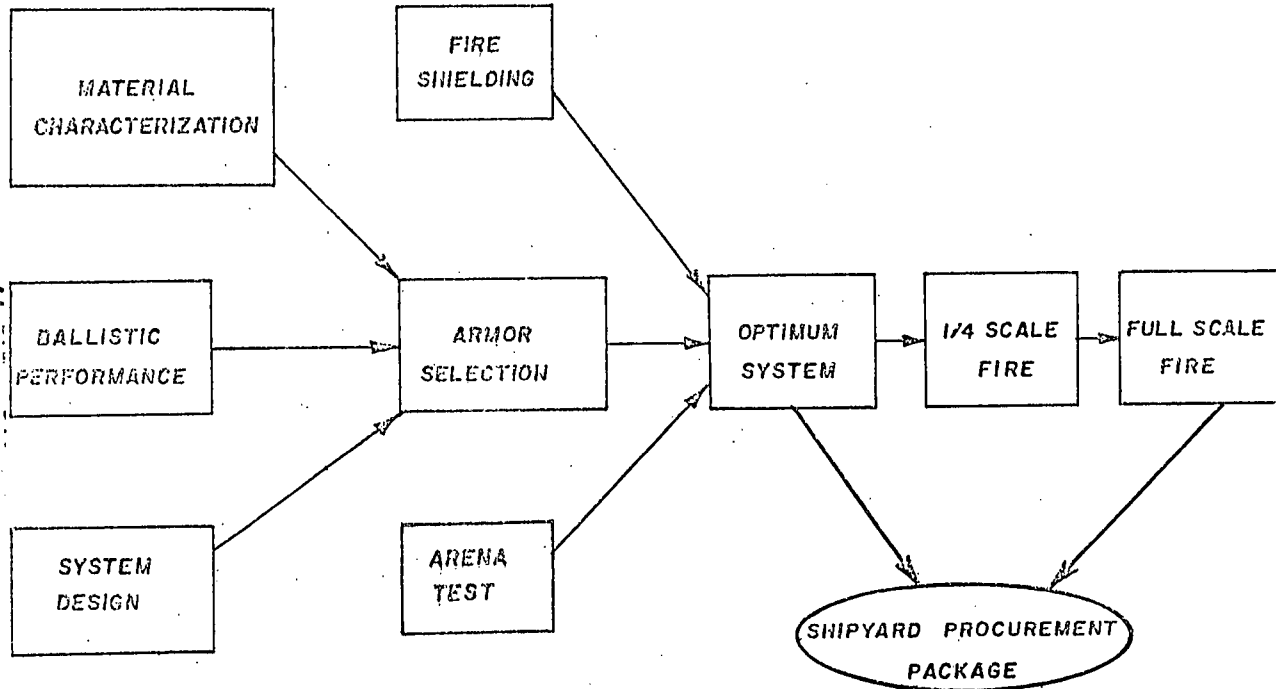
5. The full scale fire test of the FFG-7 Torpedo Magazine was conducted for a one hour burn and at no time did the KRP armor ignite. At a few locations, adjacent to the metal stiffeners, there was limited surface darkening of the KRP; however, concentrations of the toxic combustion products derived from the KRP were all below a level which would present a hazard to the crew.

6. In other related Vital Compartment efforts, the projectile arena test proofed out the fragment simulator tests and showed that weight savings of 30 to 50 percent over monolithic aluminum were provided (reference (a)). This test illustrated that the rigid KRP could be more easily attached and retained, whereas, the KEVLAR blankets deformed extensively and were dislodged from their attachments.

7. All planned work for these areas has been completed. Draft letter reports have been prepared with final printing of all four letter reports to be conducted during October 1978.

Enclosures.

APPROACH



ENCLOSURE (2)

**UNCLASSIFIED**RESIN SELECTION AND CHARACTERIZATION OF KEVLAR COMPOSITESEXECUTIVE SUMMARY

(U) The objective of this effort was to select the best resin system for fabrication of KEVLAR-Reinforced Plastic (KRP) armor so as to have the best tradeoff in cost of resin, ease in fabrication of the composite, fire resistance and ballistic performance. The tests conducted were: (1) oxygen index, (2) flame spread, (3) NBS Smoke Chamber, and (4) fragment simulator tests as an aluminum/KEVLAR system.

(U) Six candidate resins along with KEVLAR blankets were selected and two were to be screened for further evaluation in: (1) in-depth fire tests at NRL, (2) quarter scale fire tests at NSWC, and (3) ballistic evaluation in a full scale projectile arena test. Table 1 summarizes cost and chemical composition data for the six resins. The six resins used to fabricate the KRP specimens consisted of three polyester resins (Derakane 510A40, Grace GR28R, and Hexion 24370), two epoxies (Epon 815 and Epon 815FR) and a phenoxy resin (Union Carbide PKHH), which can be used to prepreg the KEVLAR cloth.

(U) ~~(S)~~ Table 2 summarizes the fragment simulator ballistic data and the fire tests data which was used to select the two KEVLAR armor systems to be evaluated by NRL in their closed fire chamber/gas analyses tests and in the quarter scale fire tests. A discussion of the important parameters follows for the seven armor systems tested. They are arranged in descending order of their ballistic performance in Table 2. It should be noted that the ballistic tests were conducted on an aluminum/KEVLAR system representative of the ship installation, i.e., a 1/2" aluminum plate for the superstructure backed with a 1/2" KEVLAR armor application.

THE CONFIDENTIAL PORTION OF THIS PARAGRAPH AND OF TABLE 2 HAS BEEN REMOVED TO PERMIT UNCLASSIFIED HANDLING OF THE LETTER. THE CONFIDENTIAL PORTION ADDRESSED WEIGHT COMPARISONS OF THE MATERIALS BEING TESTED.

(U) An oxygen index of 27% was required as a measure of resistance to combustion without a continuous ignition source. The higher the index,

**UNCLASSIFIED**

the better the material. With the oxygen/nitrogen gas mixture preheated to 150°C, the oxygen indices for KRP (Derakane 510A40) and KEVLAR blankets were 39%, and 30%, respectively. Four KEVLAR armors had flame spread indices less than the required values of 25 as determined by the ASTM E-162 test. They are: KRP (Hetron 24370), 4; KEVLAR blankets, 8; KRP (Derakane 510A40), 13; and KRP (Epon 815FR), 20. For the NBS Smoke Chamber tests, the concentrations of CO, CO<sub>2</sub>, HCl and HCN were analyzed as well as smoke density in a flaming and non-flaming mode. Only a trace of HCN was detected from each of the candidate resins; this was the primary toxicity concern under this effort. Only the KEVLAR blanket armor and KRP (Derakane 510A40) were judged to have acceptable ballistic performance and resistance to fire properties. KEVLAR blankets and KRP (Derakane 510A40) were thereby selected as the two candidate armors for the planned NRL closed fire chamber/gas analysis, quarter scale fire tests and arena fragmentation ballistic tests. The KRP candidate contained 22% resin by weight.

(U) Derakane 510A40 resin is a member of the polyester family of resins. Such polyester resins have been widely used by private industry to fabricate pleasure boats. Derakane 510A40 has also been used to fabricate fire retardant electronic circuit boards. The manufacture of the test specimens had no difficulties. The general procedures used to fabricate KRP (Derakane 510A40) are well known and practiced throughout private industry. No difficulties are anticipated to increase the thickness from the 1/2" used in the test specimens to thicknesses up to 1". For shipboard installation, panels of the appropriate dimensions can be cut using procedures commonly known in private industry.

(U) There is no problem sewing blankets 1/2" (20 plys) in thickness. However, 3/4 to 1" in thickness blankets would present difficulties. Each KEVLAR Blanket armor panel would have to be tailor made for installation on board ship at a specific location. The fabrication of each panel would require cutting 20 plys of cloth which would require cutting each ply one at a time or adapting technology used in the clothing industry. The fabrication procedures for KEVLAR Blankets are not as well defined as they are for KRP.

(U) The cost of Derakane 510A40 resin is approximately 65¢/lb when purchased in 55 gallon drums. The resin is being used in the civilian economy, such as electrical printed circuit boards. Supply is no problem.

(U) In conclusion, either KRP (Derakane 510A40) or KEVLAR Blankets have acceptable fire resistance and ballistic performance properties. The final choice between these two armor systems will be made following the completion of the NRL closed fire chamber/gas analysis tests, quarter scale fire tests, and the arena fragmentation ballistic tests. The selected KEVLAR armor, fastening technique, and flame barrier/insulation system will undergo a final proof test in the planned full scale fire test.



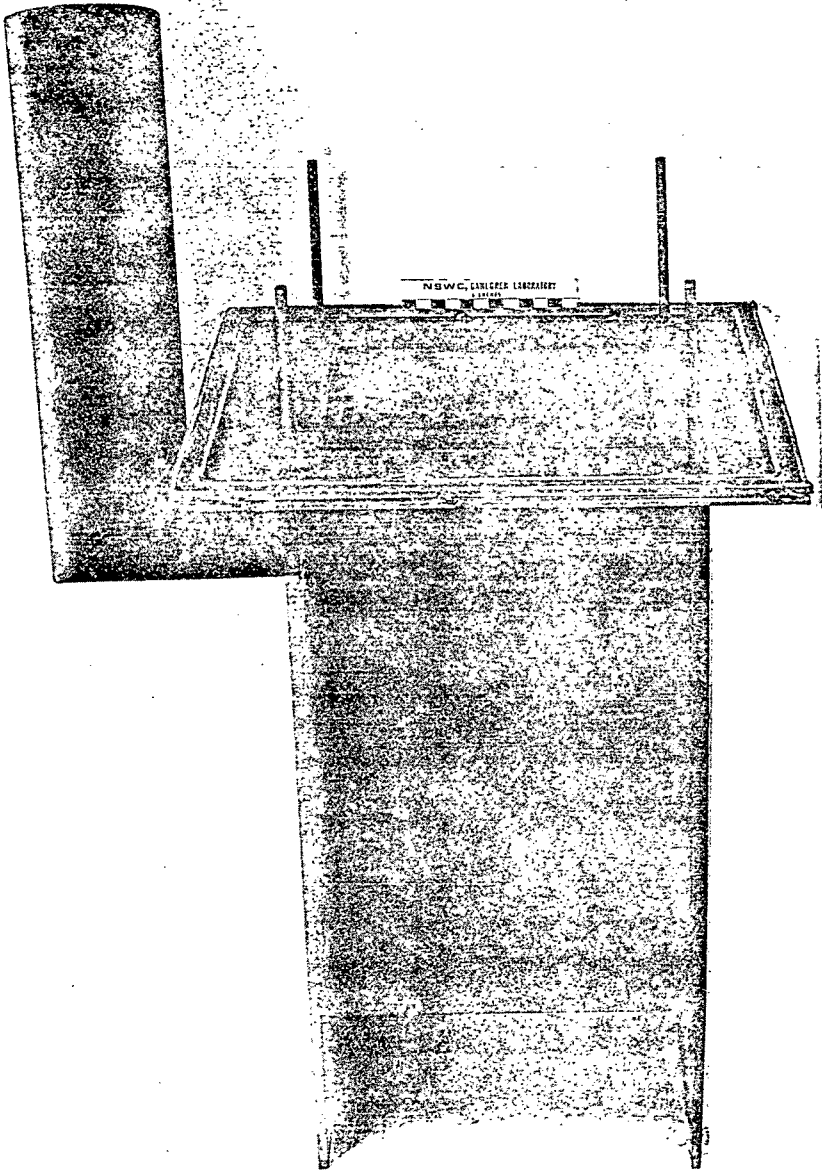


FIGURE 1.

FIRE BOX

TABLE 1 (U)  
RESIN PROPERTIES \*

<u>RESIN</u>	<u>COST \$/LB</u>	<u>FLAME RETARDANT</u>	<u>WT. % STYRENE IN RESIN</u>	<u>REACTIVE COMPONENT</u>
GRACE GR28R	0.75	TRICRESYL PHOSPHATE	42	FUMARIC ACID POLYESTER
<sup>or</sup> P-65 → DERAKANE 510	0.93	BROMINATED BP A RESIN, $Sb_2O_3$	40	BISPHENOL A VINYL ESTER
U.C. PKHH	2.00	NONE		BISPHENOL A, EPICHLOROHYDRIN
NETRON 24370	0.74	CHLORENDIC ACID, $Sb_2O_3$	34	MALEIC ANHYDRIDE, POLYGLYCOL, PHTHALIC ANHYDRIDE
EPON 815	0.72	NONE		BUTYL GLYCIDYL ETHER, BISPHENOL A EPOXY
EPON 815 FR	0.57	ALUMINUM TRIHYDRATE, $Sb_2O_3$		BUTYL GLYCIDYL ETHER, BISPHENOL A EPOXY

\* CURE PROCEDURE: 1 HOUR, 171°C, 250 PSIG FOR U.C. PKHH, FOR ALL OTHER RESINS,  
 1 HOUR, 116°C, 250 PSIG

TABLE 2 (C)  
PRELIMINARY DATA FOR VARIOUS CANDIDATE ARMORS (U)

ARMOR	WT. %	WT. %	WT.% SAVINGS		FLAME	OXYGEN INDEX		NBS SMOKE CHAMBER	
	KEVLAR	RESIN IN	OVER		SPREAD			OPTICAL DENSITY (D <sub>M</sub> )	
	IN SYSTEM	SYSTEM	5083	AL	INDEX	25°C	150°C	FLAMING	NON-FLAMING
BLANKETS	30	0.0			8	32	30	85	38
GRACE GR26R	36	9.0			65	30	26	198	168
<sup>or FFG's</sup> DERAKANE 510	34	9.6			13	39	39	405	152
U. C. PKHH	33	7.2			55	32	27	238	140
HETRON 24370	36	9.0			4	41	37	358	169
EPON 815	35	11.1			33	31	27	200	184
EPON 815 FR	34	9.0			20	36	30	212	140

## ENCLOSURE (3)

EVALUATION OF VARIOUS FIRE SHIELDING TECHNIQUESEXECUTIVE SUMMARY

The objective of this effort was to identify fire shielding/insulation materials which are capable of protecting KEVLAR armor, as installed inside FFG-7 vital compartments, for a minimum of thirty minutes from a raging or smoldering fire. A fire box was fabricated which held the candidate fire shield materials, Figure 1. To simulate the shipboard installation, a KEVLAR-reinforced plastic (KRP) armor panel was located directly above the insulation; a 1/4" aluminum plate on top represented the superstructure. An 8" diameter propane burner placed on fire bricks in the bottom of the fire box was used as the heat source. A temperature-time profile representative of ASTM E-119 conditions was used. This presented a temperature of about 800°C to the front surface of the insulation. Thermocouples were located at each material interface. The most important temperature was that of the front surface of the KRP; this was not to exceed 200°C, so as to prevent outgassing of any toxic products. In addition to keeping the front surface temperature of the KRP low, the fire shielding material was not to lose its physical integrity, melt, add any significant weight penalty, or cause problems in installation.

Table 1 summarizes the temperature data for twenty tests performed. Initial tests were based on use of the existing 2" thick fiberglass thermal insulation (Hullboard) and the addition of other materials to provide added fire protection. Refractory type materials were subsequently evaluated as felts, papers and boards. Six insulation systems met the above criteria. Five of the systems required multiple layers. A refractory felt material provided the best fire shielding, in that after 30 minutes exposure it kept the KRP armor front surface to a lower temperature than any other system. This material could be used to directly replace Hullboard and would provide the same thermal insulation for temperature control of the vital compartments. Although both 1-1/2" and 2" of the refractory felt met the criteria, the 1-1/2" thickness was selected based on the lower weight. The refractory felt insulation recommended is 4 lbs/cu.ft. Fiberfrax Lo-Con blanket manufactured by the Carborundum Co., Niagara Falls, New York.

TABLE 1 (U)  
KRP PERFORMANCE IN FIRE SHIELDING TESTS

TEST	HULLBOARD	FLAME BARRIER/INSULATION SYSTEM		TEMPERATURE, °C AT 30 MINUTES		
				INSULATION FACE, TC1	KEVLAR ARMOR FACE	
		SHIELD #	HULLBOARD		FRONT, TC2	BACK, TC
16		2" FIBERFRAX BLANKET		755	116	44
25		1-1/2" FIBERFRAX BLANKET		925	131	45
13	1-1/2"	1/2" FIBERFRAX BLANKET (BAL)		750	147	51
4	2"	STEEL FOIL (BAL)		880	156	56
18		1" FIBERFRAX BLANKET	1"	695	159	49
19		FIBERFRAX PAPER	2"	875	166	59
10	2"	E-GLASS (BDL)		885	173	51
8	2"	FIBERFRAX PAPER (BDL)		720	203	61
17		1/2" FIBERFRAX BLANKET	1-1/2"	845	204	52
24		1" FIBERFRAX BLANKET		980	219	70
7	2"	FIBERFRAX PAPER (BAL)		825	266	54
9	2"	FIBERFRAX PAPER (BDL)		930	269	52
11	2"	E-GLASS (BDL)		840	274	49
5	2"	STEEL FOIL (BAL)		770	317	67
6	2"	FIBERFRAX PAPER (BAL)		805	322	62
14	2"	INTUMESCENT PAINT		785	368	49
12	1-1/2"	1/2" FIBERFRAX BLANKET (BAL)		750	393	39
15	2"	NONE		**	420	94
20		1/2" FIBERFRAX BLANKET (BAL)		800	***	138
22		E-GLASS (BAL)		860	***	93

\* BAL IS BONDED AFTER LAY UP. BDL IS BONDED DURING LAY UP. TEMPERATURE MEASUREMENTS ON THE SHIELD FACE.  
 \*\* TEST TERMINATED BEFORE 30 MINUTES.  
 \*\*\* COULD NOT MEASURE KRP FACE TEMPERATURE BECAUSE SHIELD WAS BONDED TO THE KRP.

## ENCLOSURE (4)

FFG-7 QUARTER SCALE FIRE TEST FOR THE TORPEDO MAGAZINESEQUENCE No. 1EEXECUTIVE SUMMARY

The objective of the twenty quarter scale fire tests was to establish the ability of the KEVLAR armor (1/2 inch thickness)/refractory felt insulation (1-1/2 inches thickness) system to withstand fires of varying intensity and to relate these fire conditions to what one might expect in real life situations. Both KRP (Derakane 510A40) and KEVLAR blanket armors were evaluated in a quarter scale model of the FFG-7 Torpedo Magazine. Figure 1 gives the dimensions of the quarter scale, fire test chamber. Table 1 summarizes the test conditions for the twenty tests conducted. In two tests, Nos. 19 and 20, the candidate armors and their protective refractory felt insulation were penetrated by fragment simulators. During the test program, the severity of the fire was gradually increased. Initially one propane burner was placed in the corner, a one hour burn time was used and both doors were open. These conditions caused no damage to either armor system. The final test condition used two eight inch diameter propane burners for two hours with the burners centered and against the two large weather bulkheads having the KEVLAR armor/refractory felt insulation and one door closed. Fire test 18 subjected the undamaged KRP armor to the most severe fire stress; i.e., 2.47 BTU/S/ft<sup>2</sup>. Table 2 summarizes the equivalent quantity of other fuels which would be required to generate an equivalent heat load; i.e., 220,000 BTU/hr.

During the 17 tests conducted to simulate a raging fire, the temperatures on the face of the refractory felt insulation ranged from 700° to 800°C. In the ceiling above the burners, the range was 550° to 890°C. The temperature range for the entire ceiling was 500° to 700°C. These fire conditions were sufficient to ignite any combustible materials in the ceiling as well as inside of the compartment. However, no paint, cables, nor hotel furnishings were present. The two propane burners were the only heat source.

Table 3 summarizes the gas analysis data for fire test 18. The data indicate that the fire was clean burning and that the KRP armor did not increase the fire hazard nor act as a source of combustible materials. Gas analyses conducted during the twenty fire tests showed that the carbon dioxide (CO<sub>2</sub>) concentrations ranged from 5 to 11% (vol.). The carbon monoxide (CO) concentrations ranged from 10 to 800 ppm. The maximum CO concentrations were observed within the first twenty minutes of the test when the sizing and adhesive, which is used to hold the glass mat facing

on the refractory felt and hullboard insulation, pyrolyzed. The total hydrocarbons, reported as methane equivalence, ranged from 0.04 to 7.5 ppm. The low concentrations of carbon monoxide and hydrocarbons observed indicates that the fire conditions were consuming the combustible materials to give the complete combustion products carbon dioxide and water. The concentration of hydrogen cyanide (HCN) ranged from 0.1 to 10 ppm. The hydrochloric acid Drager tubes indicated that the combustion products were acidic with apparent concentration from 5 to >10 ppm being observed. Styrene was not detected while propane was being burned. After the burners were extinguished, the styrene concentration was less than 50 ppm. The concentration of acrolein for the fire tests with undamaged armor/insulation system ranged from <0.05 to <0.01 ppm. A maximum acrolein concentration of 0.04 ppm was observed during fire tests using the KRP (Derakane 510A40)/refractory felt system that had been penetrated by fragment simulators so that the flames impinged on the holes.

The following conclusions are based on the data obtained in the quarter scale fire tests.

- (a) Neither KEVLAR blanket nor KRP (Derakane 510A40) when protected by the refractory felt insulation will burn. These KEVLAR armors will not increase the fire hazards caused by either a low intensity, smoldering or an intense, raging fire. They will not act as a source of combustible materials.
- (b) If the protection of the insulation is lost due to enemy action (hole caused by a fragment), the damage, charring, to the KEVLAR armor will be localized and confined to the immediate area of the fragment hole. Charring will only occur when flames impinge on the fragment hole.
- (c) When protected by the refractory felt insulation, neither the KEVLAR blankets nor the KRP (Derakane 510A40) will generate toxic combustion products in a concentration sufficient to increase the hazards of either a low intensity, smoldering or an intense, raging shipboard fire.

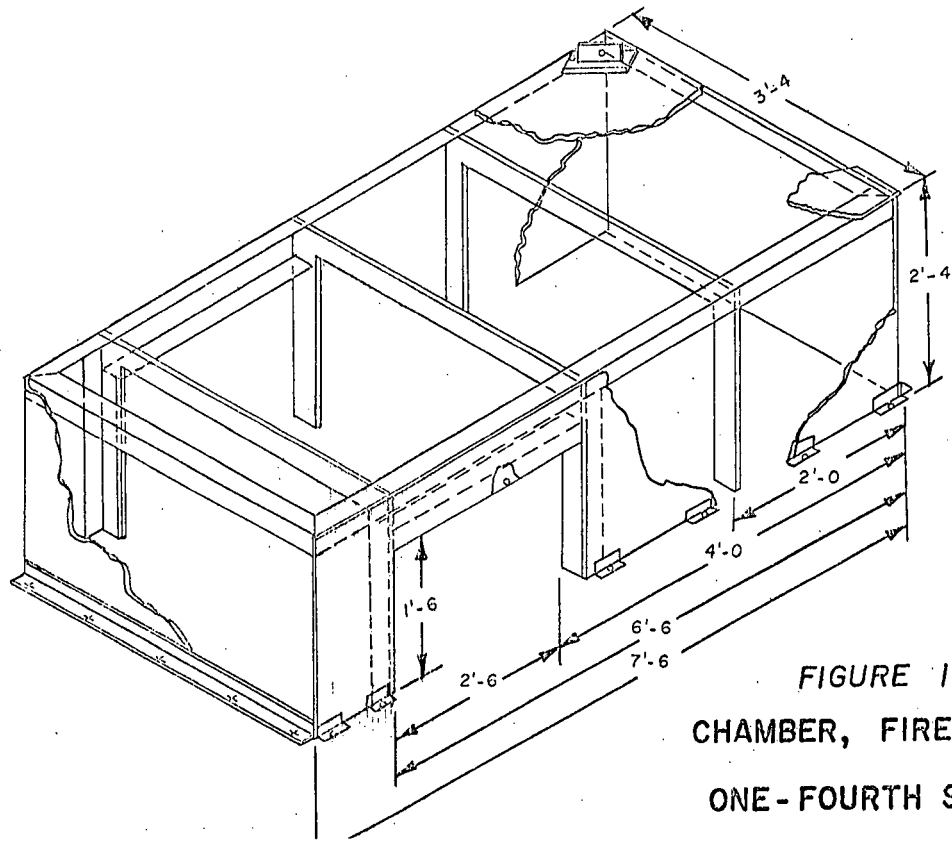


FIGURE 1  
CHAMBER, FIRE-TEST  
ONE-FOURTH SCALE



TABLE 1

## QUARTER SCALE FIRE TESTS

Test Number	KEVLAR Armor	Burners		Propane Burned, lbs	Fire Duration	Heat Load		Doors Open	Comment
		Number	Location*			Total, BTU	BTU /s/ft <sup>2</sup>		
1	None	1	C		1			2	Hullboard without glass cloth
2	Blankets	1	C		1			2	Fiberfrax used to cover blankets
3	KRP	1	C		1			2	Fiberfrax used to cover KRP
4	Blankets	1	C		1			2	
5	KRP	1	C		2			1	Low flame to achieve ove. effect
6	KRP	1	C		1			2	
7	None	None	A			10,240	0.11	1	3,000 watt electrical heater
8	None	1	A	6.0	1	120,000	1.35	2	Used burner with large holes
9	KRP	1	A	5.0	1	100,000	1.12	1	Used burner with small holes
10	None	None	A		2	40,970	0.22	1	6,000 watt electrical heater
11	None	2	A,B		0.5			1	Melted hullboard in the ceiling
12	None	2	A,B	5.5	1	110,000	1.23	1	Fiberfrax used in the ceiling
13	None	2	A,B		0.7			1	Terminated small gas bottle froze
14	None	2	A,B	11.0	1	220,000	2.47	1	Used large gas bottle
15	None	2	A,B	8.0	1	160,000	1.80	1	
16	KRP	2	A,B	8.0	1	160,000	1.80	1	
17	Blankets	2	A,B	23.0	2	460,000	2.58	1	
18	KRP	2	A,B	22.0	2	440,000	2.47	1	KRP/Fiberfrax in ceiling
19	KRP	2	A,B	23.5	2	470,000	2.64	1	Armor penetrated by fragments
20	Blankets	2	A,B	20.0	2	400,000	2.24	1	Armor penetrated by fragments

\*C, Burner located in corner 2 inches from the insulation.

A, Burner centered in section A and placed against the insulation.

B, Burner centered in section B and placed against the insulation.

TABLE 2 (U)

QUANTITY OF FUEL REQUIRED TO EQUAL 440,000 BTU'S\*

<u>FUEL</u>		<u>FUEL BURNED</u>		<u>EQUIVALENT FULL</u>	
<u>NAME</u>	<u>BTU/LB</u>	<u>DURING QUARTER SCALE FIRE</u>		<u>SCALE FIRE</u>	
		<u>LBS</u>	<u>GAL.</u>	<u>LBS</u>	<u>GAL.</u>
GASOLINE	20,750	21.2	3.2	339	50.7
PROPANE	20,000	22.0		352	
JP-4	18,400	23.9	3.7	382	59.2
JP-5	18,300	24.0	3.7	384	59.2
OAK	7,200	61.1		978	
OTTO FUEL II	7,000	62.9	6.1	1006	97.6
RUBBER	6,030	73.0		1186	

\* THE 440,000 BTU'S WAS GENERATED DURING FIRE TEST 18.

TABLE 3 (U)  
GAS ANALYSIS DATA FOR FIRE TESTS 18

<u>TIME</u> <u>min.</u>	<u>CO<sub>2</sub>,</u> <u>%</u>	<u>CO,</u> <u>ppm</u>	<u>CH<sub>4</sub></u> <u>ppm</u>	<u>HCN</u> <u>ppm</u>	<u>HCl</u> <u>ppm</u>	<u>STYRENE</u> <u>ppm</u>	<u>ACROLEIN</u> <u>ppm</u>
4	3.5	141	7.5	2			
8	2.5				8		
12	5.25					N. D.	
16	5.25	144	0.6				
40	9.0			5			
42	9.5				>10		
46	9.5	22	0.1				
60	10.0	33	0.04				<0.05
76	9.5	20	0.07				
90	6.5	13	0.03				
94	6.5						<0.05
98	7.25			<1			
104	7.5	33	N. D.				
110	7.5						<0.05
118	7.0	11	N. D.				
126	0.0			<1			
128	0.0				4		
130	0.0					<50	
140	0.0						
142	<del>0.0</del> 0.0						<0.05 <del>0.05</del>

## ENCLOSURE (5)

FULL SCALE FIRE TEST FOR THE TORPEDO MAGAZINEEXECUTIVE SUMMARY

The objective of this effort was to fire stress a replica steel test compartment of the FFG-7 torpedo magazine and to demonstrate in a proof test that KEVLAR-Reinforced-Plastic (KRP) armor when shielded by refractory felt fire insulation is suitable for use inside vital compartments. The fire test compartment was complete in all installation and construction details and was representative of all the vital compartments. An industrial, No. 2 heating oil furnace generated 3.78 million BTU during the one hour test to produce a heat load of 2.5 BTU/S/ft<sup>2</sup>. Temperatures greater than 550°C were recorded in the ceiling indicating that any combustible materials would have ignited.

Table 1 summarizes the data for the full scale fire tests and compares the results for the quarter scale fire tests. Gas analysis for carbon dioxide (CO<sub>2</sub>) indicated concentrations ranging from 5 to 13% which agreed with the 1/4 scale fire test results. Gas analysis for carbon monoxide (CO) indicated concentrations ranging from 0.1 to 1.9% which was ten times greater than that observed in the 1/4 scale tests. The acrolein concentration was less than 0.01 ppm. The concentration of hydrocarbons was less than their TLV values. The gas analysis showed that the KRP (Derakane 510A40) did not release toxic combustion products.

A series of photographs illustrate the effectiveness of the selected armor/insulation system. The insulation covering for the KEVLAR armor is shown in Figure 1. Thermocouples are visible to measure the temperature from the oil burner heat source which was inserted in the circular hole in the corner of the compartment. After the one hour burn (Figure 2), the taped joints have burned; however, the refractory felt is completely intact over the KEVLAR armor. The fiberglass insulation which was attached to the vertical stiffeners, as shown on the left, has been burned or eroded away by the flame. Upon removing all of the insulation (Figure 3), it is seen that the KEVLAR has not burned. Some evidence of scorching is seen near the bottom of the compartment and adjacent to the stiffeners.

This full scale fire test concluded the four part fire program for KEVLAR installation inside FFG-7 Vital Compartments. The conclusion from this test were that the designed armor/fire shielding system consisting of KEVLAR woven roving in a Derakane 510A40 resin and a 1-1/2" refractory felt fire insulating shield will withstand a raging fire for a one hour period without burning of the KEVLAR armor or the production of toxic combustion products at hazardous levels.

TABLE 1 (U)  
FULL SCALE TEST DATA (U)

HEAT LOAD: 2.5 BTU/SEC./SQ FT.

GAS CONCENTRATIONS:

CO <sub>2</sub>	5 TO 13%	SAME AS 1/4 SCALE
CO	0.1 TO 1.9%	TEN TIMES 1/4 SCALE
ACROLEIN	<0.01 ppm	SAME AS 1/4 SCALE
HYDROCARBONS	<TLV's	LOW

MAXIMUM WEATHER BULKHEAD TEMPERATURES, °C:

	<u>FREE AIR</u>	<u>KRP</u>
CEILING ABOVE BURNER	550	
BULKHEAD ABOVE BURNER	790	125
BULKHEAD BESIDE BURNER	900	350
BULKHEAD ABOVE DOOR	595	195

MINIMUM FIRE DAMAGE TO KRP

SMOKE OBSERVED FROM BURNER, ADHESIVE, SIZING FROM 5 TO 40 MIN.

FIGURE 1. Insulation covering Kevlar armor before fire test

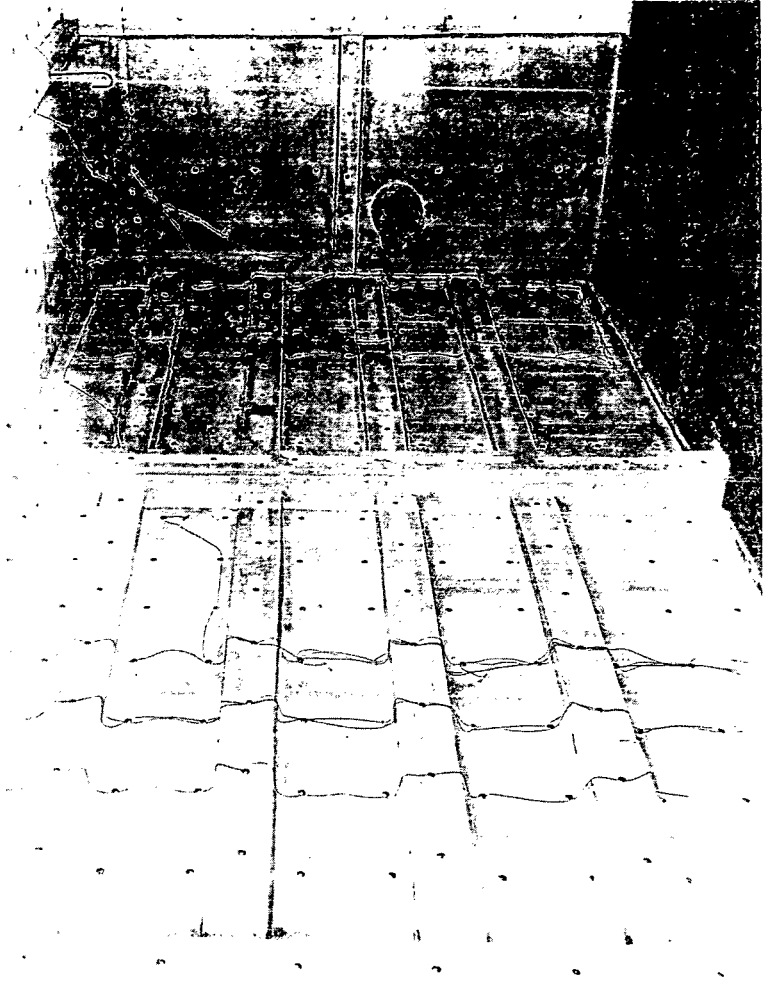


FIGURE 2. Insulation after 1-hour fire test

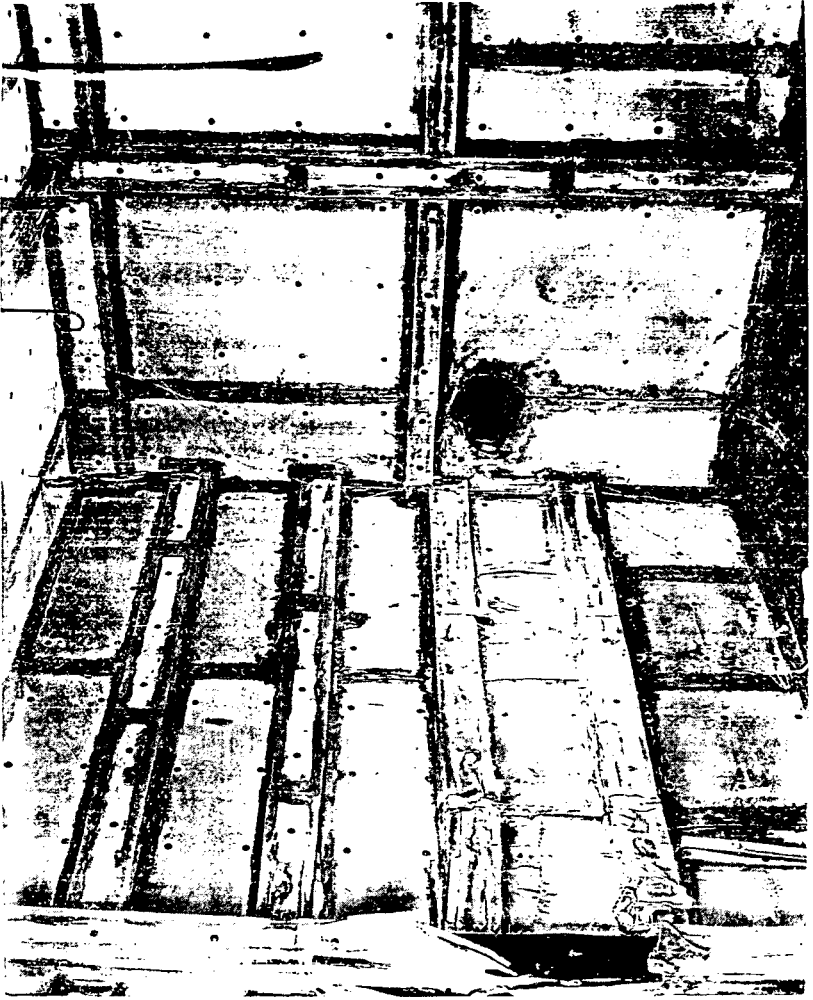
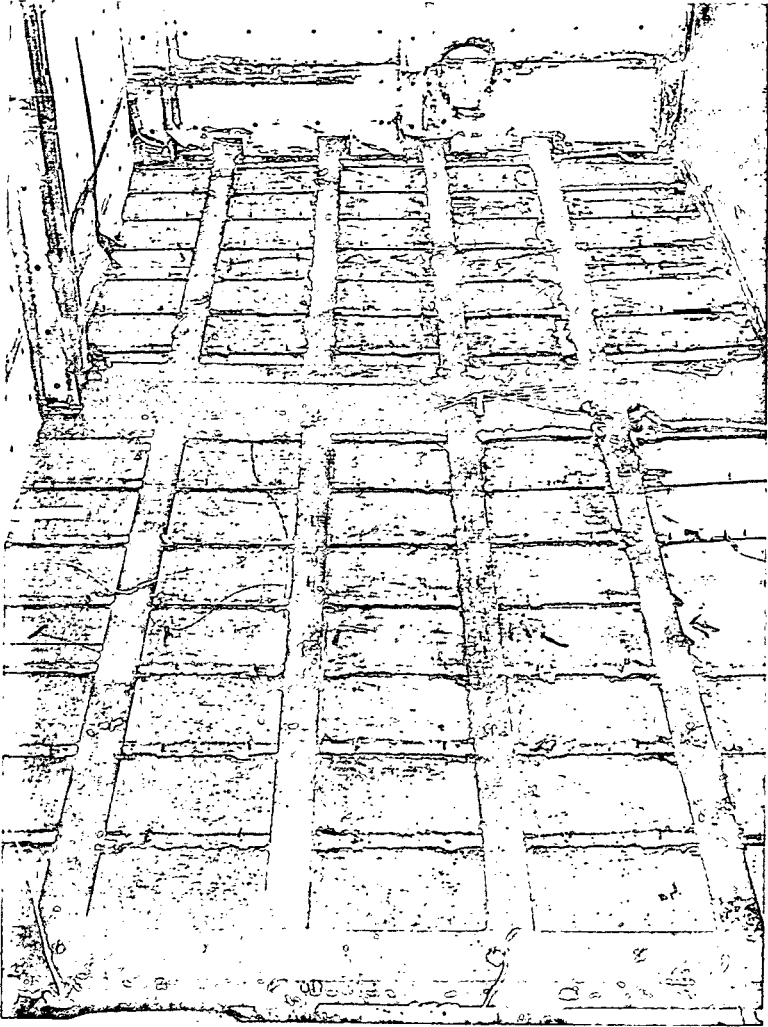


FIGURE 3. Kevlar armor with insulation removed after one fire test





Senator PROXMIRE. Does that problem not reveal a weakness in the ship's design and who would you say is responsible for it, the Navy or the shipbuilders—the fact that it was vulnerable to cheap kills?

Secretary CLAYTOR. Senator, I don't accept the premise. It was more vulnerable to a cheap kill than it is now but it was not vulnerable to a cheap kill compared to other Navy ships of the world.

Senator PROXMIRE. That is your conclusion, that is not the conclusion of the GAO.

Secretary CLAYTOR. I don't consider that the GAO is really an expert on military operations.

Senator PROXMIRE. Well, you don't have to be an expert on military operations to make a judgment as to the vulnerability of a ship under these circumstances.

Secretary CLAYTOR. That is right. I rely on the Chief of Naval Operations and his staff who spend their entire lives working on this before I rely on an accountant from the GAO.

Senator PROXMIRE. We found the GAO to be a military analyst and they have served us very well. You know, it reminds me of what George G. Nathan, the New Yorker film critic said when he was accused of being a critic without being able to write a play or not having written a play, and his response was, "You don't have to be a hen to know whether an egg has been prepared," and it is the same thing here. You don't have to be a military person to form an opinion on the military.

Secretary CLAYTOR. Senator, it is just a question of difference in judgment.

Senator PROXMIRE. How much will each LAMPS III cost?

Mr. HIDALGO. We will supply it for the record.

Secretary CLAYTOR. We will supply it. The LAMPS III project is a different project from this and I—

Senator PROXMIRE. It is absolutely vital. I understand it is being provided separately from the FFG but nevertheless we should know that.

Secretary CLAYTOR. I can produce that.

[The information referred to follows:]

The program unit costs of the LAMPS Mk III air vehicle in escalated dollars is \$13.978 million.

Senator PROXMIRE. We would have to add that, of course, to the cost of the FFG.

Secretary CLAYTOR. Not for purposes of the SAR. We don't include cost of airplanes to cost of carriers or cost of helicopters on helicopter carriers.

Senator PROXMIRE. Will the LAMPS III be on the first 26 ships?

Secretary CLAYTOR. No, it probably will be some years after.

Senator PROXMIRE. Which one will be?

Secretary CLAYTOR. LAMPS I, which is very effective.

Senator PROXMIRE. We were told yesterday that it was not effective.

Secretary CLAYTOR. LAMPS I is a pretty good system for submarine detection, sir. The LAMPS III has a much wider detection capability and is therefore better, but the LAMPS I is the most effective system in the world today. These ships will all have LAMPS I, as many of our ships now in operation do.

Senator PROXMIRE. Will there be enough LAMPS I for all the FFG and will the LAMPS I allow the ship to effectively perform its mission?

Secretary CLAYTOR. As I mentioned, we don't assign LAMPS helicopters to specific ships. We keep them in a pool, and we fly them out to the ship when the ship needs them. I would like to have more.

Senator PROXMIRE. On the grounds of, say, maybe 50 percent will be at sea at one time?

Secretary CLAYTOR. That is right.

Senator PROXMIRE. You can use the helicopters more intensively than you can the ships.

Secretary CLAYTOR. That is correct.

Senator PROXMIRE. When will there be enough LAMPS III to do the job to provide what you need? Can you tell us that?

Secretary CLAYTOR. I don't think our production schedules for the outyears are firm yet. That will come in the budget still to come. The first IOC is in 1984, so the first one will come in 1984, and it will depend on the production schedule we have for the outyears how fast we get them.

I would like to get them very fast, Senator.

Senator PROXMIRE. Now, earlier you talked about the great reputation of the FFG, and I know the criticism of it. The December 1978 issue of the Journal of the American Defense Preparedness Association names an essay by Jan W. Snouck-Hurgronje entitled, "U.S. Navy Ship Design." The author is the acquisitions editor of the U.S. Naval Institute, who was a naval officer during the Vietnam war. The article rakes the Navy over the coals for the FFG.

In particular he writes the following, and I would like to quote that to you and get your response. He said:

The United States, which once led the world in the quality of its ships, is now sending ships to sea which are increasingly deficient in armament and seakeeping qualities compared to their contemporaries in some foreign fleets.

Only one class of gun destroyer has entered naval service in recent years, the Spruance-class. This ship has been severely criticized for its large size, anemic weaponry, and high unit cost. The several major innovations in this ship, such as gas turbine propulsion, silencing for quiet running, improved electronics, and new assembly techniques have been matched in smaller, cheaper, more heavily-armed designs of foreign navies.

As for frigates, as shown in the table, the U.S. Navy is building the Oliver Hazard Perry class at an estimated cost of over \$187 million each in 1978 despite the large numbers envisioned—seventy-four as of Fiscal 1978. These ships share many of the same deficiencies of their larger U.S. contemporaries, and have some of their own to boot.

How do you respond to that?

Secretary CLAYTOR. I disagree with him that the ships are inadequate in any sense. I would agree with him that we ought to have more defensive armament, and I think the only problem in that is money.

I would like to see two PHAJANX's on every frigate, and as soon as we get enough I think we will. I would like to see our ships bristle with armament, and the only reason they don't is money. They are expensive.

Senator PROXMIRE. Let me be more specific in comparison. The author has a table of ships built by allies. The British version costs

less than half the FFG cost, has the same range, is 2 knots faster. The same can be said about the Dutch version. The West German version similarly armed costs \$140 million, which is considerably less, is also faster than the FFG. The FFG can go 28 knots; these other frigates go 30 knots.

Are you familiar with these facts and that the Navy is getting less capability than our allies have?

Secretary CLAYTOR. I don't think that proves anything. I have to study the ships he is talking about, study his data and see if it is correct, study our data. When you talk about dollars, foreign shipbuilding is much cheaper than ours.

Senator PROXMIRE. As Secretary of the Navy I think you would be familiar with the Dutch, the West Germans.

Secretary CLAYTOR. I don't think they have any as capable as we have.

Senator PROXMIRE. That is a reassuring statement, and all of us are proud of this country and hope that it is true, but the cost facts here seem to dispute that.

Secretary CLAYTOR. I disagree that they do, sir.

Senator PROXMIRE. Now the FFG crew size has been reduced considerably compared to comparable sized ships. There is concern that the small crew will be unable to meet the maintenance needs of the ship, especially facilities maintenance—cleaning and preservation—in port. Further concern has been expressed within the Navy concerning the capability of the FFG's crew to meet the operational needs. The ships will all have to be 100-percent manned and the overall quality of the crew will have to be superior to that existing in the fleet today. Considering the current trend of undermanning Navy ships and the fact that the Navy wants about 70 or more of these frigates, how does the Navy propose meeting the manning requirements of these frigates?

Secretary CLAYTOR. We are in the process of doing everything we can to improve our retention as well as our accessions. I think that we are getting a great deal of the manpower. Of course, a large number of ships are being retired this year so that that is one way. These ships are the most efficient users of manpower of any ship we have, as you point out.

My destroyer escort in World War II had 215 personnel and only 1,500 tons, and this ship can be fought with something like 185 and over twice the size. One reason is that we have developed fire-control mechanisms that are automatic; instead of having 10 people to load that gun, this gun is operated by one man in the control room, and we go on from there so that this ship from a personnel basis is the best thing that could possibly come along because we are able to have an effective and a large ship manned by fewer people with the technology that we have today.

Senator PROXMIRE. I understand that another reason for this is the FFG design eliminates most shipboard maintenance. Do you believe there are adequate facilities for onshore intermediate maintenance at the present time, or will FFG's have to be sent to depots and taken out of operation for the kind of maintenance that used to be done aboard at sea?

Secretary CLAYTOR. I think what you are talking about is the electronic maintenance, and most of that is handled now by units that are taken out of the ships, sent ashore, and fixed and replaced with another unit. That is the way to do it; that is the way we are doing it. With all of our modern ships today it is far more efficient.

Senator PROXMIRE. How do you explain the Congress rejection of most of the Navy's intermediate maintenance requests last year?

Secretary CLAYTOR. I didn't know they had.

Senator PROXMIRE. The intermediate requests last year.

Secretary CLAYTOR. I didn't know they did, Senator.

Mr. HIDALGO. I am just slightly familiar with that, Senator, only in the sense that I think there were a lot of growing pains in that program, as Senator Warner may remember, in a study of what was needed for mobilization purposes and peacetime purposes. I think the MILCON account took a beating here and there, but I was assured by Admiral Fisher, who is in charge of this, that the intermediate maintenance program is very much on track now and is going ahead in a satisfactory way. There is money in the 1979 budget for it, and we hope to get more.

I think the main criticism of Congress was that the Navy, they believed, had not made a proper evaluation of what its maintenance needs were.

Senator PROXMIRE. Senator Warner, before you came in, the Secretary did include in his statement a discussion of the Newport News situation, and I said that I would not question him on that because we submitted questions in writing, and he has responded in writing, and we had hearings on it before, but we would be very happy, if you want to say something on that or anything else you would like to ask on.

Senator WARNER. Thank you, Mr. Chairman.

While I may disagree with some of your viewpoints, I commend you for bringing into open light through public hearings the complexity of the issue in shipbuilding and particularly the changes that evolve in the route of the ship from the design to when it reaches fleet operations.

It was my privilege to sit at that witness table for over 5 years advocating the building of new ships for our U.S. Navy, and the ships under discussion today were conceptually designed while I was in the position of Under Secretary of the Navy.

I have always believed, Mr. Chairman, that despite the problems that we see today of cost overrun throughout the last 8 or 9 years, the men who have been seated at that table, either civilian or uniformed, have been persons of unquestioned integrity and good faith, and they have tried as hard as they could to bring forth the weapons needed for our national defense.

We addressed here a moment ago some particulars with reference to how ships of other countries might be more effective than our own. I do believe that the Secretary of the Navy expressed accurately that we have the finest ships in the world.

The one area in which we may compromise that other Nations do not is in the area of living conditions—and that, I think, is necessary. The modern design of the American ships have tried to accommodate living conditions which are indeed much better than those built into

the ships of other nations, particularly the Soviet ships and ships that are in the NATO Fleet.

We recognize the integrity of the American sailor, and we have tried to provide for that in construction, and in doing so we may have created higher costs and compromised slightly in other areas of construction.

I commend the Secretary of the Navy and his able assistant, Mr. Hidalgo, whose experience dates back to the period when James Forrestal was Secretary of the Navy. I think we are fortunate today, even though they have been nominated by the Democrats, to have men of such distinction as the civilian heads of our Navy.

Senator PROXMIRE. Thank you very much, Senator Warner. I certainly agree with you about the integrity.

Senator WARNER. I would emphasize, as one involved in the Navy's shipbuilding problems in the early 1970's, that the significance of the Newport News settlement should not be overlooked.

In terms of ships, there were 12 nuclear-powered vessels, involving five contracts and over \$2 billion in new ship construction. In terms of time, these contracts spanned over a decade during periods of unprecedented double-digit inflation and obviously inadequate contractual provisions to meet the many unforeseen problems.

The Newport News settlement, as well as those with the other two major shipbuilders, hopefully signifies the end of a difficult era. Great credit is due all the parties involved for avoiding what could have been years of difficult litigation. The unpredictability of such litigation might well have resulted in a higher settlement cost for the Government.

The job for the Navy, the contractors, and the Congress is to learn from this past experience and get on with the job of building ships for the national defense.

There will always be the necessity of incorporating technological progress in a ship during its lengthy construction process. Navy shipbuilding, therefore, is unlikely ever to be simple or completely problem-free. What we now have is a clean slate—a unique opportunity to minimize the problems of the future by avoiding the problems of the past.

The record should also note that despite the difficult claims and contractor problems, these ships when delivered to the fleet were the most advanced of their type in the world.

Secretary CLAYTON. Thank you.

Senator PROXMIRE. Well, Mr. Secretary, before you leave, I just wanted to, No. 1, thank you for your responses and your being frank and candid, as I said in the beginning, and you obviously have great ability. Frankly, I think you are arguing a weak cause, but you have argued it well.

There is a colossal overrun, and in this case it is not the responsibility of the shipbuilder. I think we can all concur that you have done a good job, but it is the responsibility of the Navy. The design was wrong, and the first ship was delivered late; no question about it.

The ship has been charged by the GAO as being vulnerable. I am not satisfied with the response, although I think you have made a strong rebuttal.

Nevertheless, I think that the ship does seem to be unfortunately vulnerable.

I want to thank you very, very much for your testimony. You have been most responsive.

Secretary CLAYTOR. Thank you. It is always a pleasure.

Senator PROXMIRE. Our next witness is John T. Gilbride, chairman of the board, Todd Shipyards Corp., New York, N.Y.

Mr. Gilbride, go right ahead. If you want to summarize your prepared statement, that is fine, or you can deliver it as you have it.

**STATEMENT OF JOHN T. GILBRIDE, CHAIRMAN OF THE BOARD, TODD SHIPYARDS CORP., NEW YORK, N.Y., ACCOMPANIED BY EDWIN J. PETERSON, FFG PROGRAM MANAGER, LOS ANGELES DIVISION; AND WARD E. SQUIRES, VICE PRESIDENT AND ASSISTANT GENERAL MANAGER, ADMINISTRATION, TODD PACIFIC SHIPYARDS CORP.**

Mr. GILBRIDE. Mr. Chairman, Senator Warner, ladies and gentlemen, appearing with me on my left is Edwin J. Peterson, FFG program manager at our Los Angeles division, and his counterpart at our Seattle division, Ward E. Squires, vice president and assistant general manager, administration, Todd Pacific Shipyards Corp.

We have submitted a rather lengthy prepared statement and I have some notes I will summarize. I will give you in a few minutes our background and the progress that we are making.

As to the background, Todd Shipyards was organized in June of 1916. During virtually the entire succeeding 63-year period we have been engaged exclusively in shipbuilding, conversion, and repair. Of our seven shipyards located on the Atlantic, Gulf, and west coasts, FFG construction takes place at our Seattle and Los Angeles divisions. The Seattle division is located on 61 acres and it has three shipways, two of which are capable of producing 500-foot vessels and three dry-docks.

The division has contracts to build and deliver eight FFG's at an approximate rate of three per year. The division has increased its manpower over the last 27 months from 620 to 3,000 people, which is our planned peak manpower.

The Los Angeles division is located on 90 acres in San Pedro, Calif. It has two shipways, both of which are capable of producing 600-foot vessels and two drydocks. The division has contracts to build and deliver nine FFG's at an average rate of three per year and the manpower buildup is essentially the same at that division, a peak of 3,000.

Since 1972 Todd Shipyards Corp. and Bath Iron Works have participated with the Navy in the design, support and construction of the FFG's. Out of this participation there has evolved a beneficial competition among the three shipyards and a constructive dialog between the Navy and the shipyards concerning the Navy's requirements and the shipyards' production capabilities.

From this experience I have come to believe that significant factors contributing to the success of this program are the mutual trust and commitment of the bulk of the various parties involved, the "fly before you buy" procurement policy, the risk allocation formula in the FFG contract and, finally, the progress of the program itself. The principal

effort on this program is shipbuilding and not claims preparation or other adversarial tasks.

The "fly before you buy" procurement of FFG's is predicated upon the wisdom of designing, constructing and thoroughly testing a lead ship with an experience interval occurring prior to the construction and delivery of follow ships.

There is a 2-year planned interval between the delivery of the lead ship and the first follow ship. Moreover, comprehensive land-based testing of major ship systems has been accomplished prior to installation in the lead and follow ships.

Final construction plans and other documents are delivered to the follow shipbuilders after validation by the Navy. The validated documentation assures the follow shipbuilder that if he constructs the vessel in accordance with such documentation, he will be in compliance with the specifications.

The Navy implements changes and contract modifications only on a bilateral basis. This dialog with the builder affords the Navy the opportunity to assess any additional cost or schedule delays attendant to the change prior to its incorporation in the construction contract.

At this stage not all the document has been validated by the Navy. However, the extent of validation and continuing progress in this area represents a significant improvement in the coordination of follow ship construction and is a deterrent in one of the root causes of past shipbuilder claims.

While the FFG lead ship was constructed under a cost-plus-incentive-type contract, follow ships have been awarded under fixed-price-incentive-type contracts with escalation provisions. The FFG follow ships are priced to target cost and target profit and allow escalation of labor and materials based on indexes prepared for the Navy by the Bureau of Labor Statistics. Cost incurrence up to 125 percent of the target cost is shared by the Government and the shipbuilder on a 70-30 percent basis. Consequently, both the Navy and the shipbuilder have a clear picture of their financial responsibilities and risks in this program.

One major factor contributing heavily in the success of the program is the continuity in assignment of its key personnel. Both the Navy and the shipyards have taken special consideration to retain their top management and design people within the project. This policy has enhanced the progressive evolution and stability of the program while securing the benefits derived from combined knowledge and understanding.

Finally, I believe that the FFG construction progress to date at our Los Angeles and Seattle divisions augurs well for the overall success of the program. As of December 16, 1978, we have launched five FFG's. Those launchings are ahead of the stipulated contract dates by an aggregate 327 days. The full report of our contract milestone at both divisions is contained in the prepared statement distributed to the subcommittee.

The growth of the FFG contracts at both of our divisions, due to change orders through November 30, 1978, has produced a modest 4.5 percent incremental adjustment in the target costs, as reported in our prepared statement. Together, these statistics demonstrate the success

of the FFG program. The first flight of six FFG's awarded to Todd in February 1976 is approximately 58 percent completed. We are well within the contract cost constraints and delivery requirement.

Let me conclude by stating that Todd Shipyards Corporation has extensive experience in the construction of destroyers and frigates of many types. During World War II Todd produced 45 of those destroyers. Since World War II, we have been building SSG's, DLG's, and DE's, and we think the FFG program is one of the finest in which we have participated.

That is my informal remarks, Mr. Chairman.

[The prepared statement of Mr. Gilbride follows:]

#### PREPARED STATEMENT OF JOHN T. GILBRIDE

##### I. FFG PROGRAM BACKGROUND

For many years the United States Shipbuilders have advocated series construction of singular class naval vessels spanning a number of years and incorporating as few changes as possible. Such programs provide a shipbuilder the opportunity to commit his manpower and facility resources for developing maximum production efficiency.

A large measure of the FFG program success to-date, and its excellent forecast for continued success in meeting cost and schedule goals, may be attributed to the careful, effective and continual planning by the Navy's Project Management Organization from inception to the present.

In late 1971 the U.S. Navy solicited all interested shipyards for a proposal to assist them in the engineering design development of the FFG. As a result of this solicitation, in early 1972 the Navy chose two competing yards—Bath Iron Works and Todd-Seattle—to participate in the design of this class vessel.

For almost two years, the design refinement effort continued and the two involved shipyards, along with other domestic competitors, were able to plan their resources for an ongoing construction program. When the contract design phase was completed, the lead ship was negotiated with Bath and the Todd support contract came to an end. In early 1975 the Navy solicited all destroyer-capable building yards for FFG construction proposals, and in early 1976 two Todd yards and Bath competitively received contracts to construct a total of 11 FFGs. Later the Navy again solicited capable yards for a second flight of FFGs which resulted in an additional award of 8 ships in early 1977 to the same three yards. This award also contained options for 9 more ships in the subsequent year. It is our present understanding that the Navy is contemplating the construction of more FFGs through 1984.

With the support of the Congress, this original objective of carrying out the series construction of a large number of ships to a stable design is now at the threshold of realization.

##### II. PROJECT STABILITY AND CONTINUITY

The 28 FFGs follow ships presently under contract among three shipyards extend production through 1982. With the reasonable expectation of additional ships the yards involved are concentrating their efforts toward refining their planning, production and management techniques; establishing a solid experienced labor force; and programming capital investments; all toward achieving the maximum cost effectiveness in the overall FFG program.

A substantial lead time (2 years) was allowed between lead ship and initial follow ship delivery. This permitted incorporating lessons learned while building the lead ship as well as early operational results into the follow ship design and construction.

Another contribution to all prospective builders was the availability, during proposal preparation and cost estimating, of a significant number of working drawings showing details normally not available to a bidder. This early availability of working drawings also provided builders with a basis for advance planning in manpower acquisition. As an example, after award, Todd-Seattle was able to build its shipyard manpower from 620 people a few months after FFG



contract award to the current level of over 3,000, during a period of approximately 27 months.

As a result of having obtained definite long-term contracts for construction of FFGs, Todd made a corporate decision for the mutual benefit of the Navy and Todd. The commitment was made to dedicate the total shipbuilding facilities at both our Seattle and Los Angeles shipyards for the exclusive building of FFGs. Since the inception of these contracts those two yards have not bid on any other new construction proposals, either Navy or commercial, which may have interfered with the FFGs. Todd has concentrated its management, financial and productive capabilities toward making the FFGs a totally successful program.

At both shipyards Todd has invested new talent and capital to insure its performance proficiency. Todd has improved its material handling facilities, construction platens and shipways, shop and assembly areas, data processing abilities and upgraded our outfitting piers.

### III. COMMITMENT OF KEY PERSONNEL—TODD AND U.S. NAVY

Effective program implementation depends heavily on continuity of knowledge and understanding. It is our observation that this stability of personnel assignment was particularly well done in the Navy FFG community. For example, the first Navy Ship Acquisition Project Manager (SHAPM) created the project management organization and remained at its head through the award of the first follow ship contracts and the first Quarterly Production Progress Conference, a period of about five years. His successor has been associated with the program since 1971 when weapons selection decisions were being made. The Deputy Project Manager has been on the project since its inception.

Special consideration has been given to providing for continuity and proper timing in the assignment of key military and civilian personnel at other Navy activities involved in the program, such as Supervisor of Shipbuilding offices and land-based test sites.

In many cases, key Navy personnel have been rotated from headquarters to field positions and vice-versa or re-assigned among field positions within the program, thereby making maximum use of their program experience.

Similarly, the Class Design Agent has had the same project manager, with extensive design experience, since the establishment of the CDA project office.

Todd, too, has maintained continuity in its key FFG program personnel. Of the eight residents in the Todd Ship System Design Support Office at the Naval Ship Engineering Center in 1972 and 1973, five retained key positions in the program. One is Program Manager in Seattle, one is Assistant Program Manager in Seattle, and one is Quality Assurance Director in Seattle, one is Senior Production Planner at Todd Los Angeles and one other joined Bath Iron Works as FFG Technical Director.

The General Manager at Seattle not only has held that position during the FFG program but was the Assistant Manager and then the General Manager during the FF 1052 and DDG-2 Class construction at the Seattle yard. Our present Assistant General Manager at the Todd Los Angeles Division was responsible for the engineering work done at the Seattle yard during FFG Ship System Design Support.

The combined knowledge and understanding of all of these Navy and Todd people in key positions throughout the FFG program management organizations has enhanced their effectiveness in implementing those policies and practices which are contributing to the timeliness and cost performance in the FFG construction program.

### IV. CONTRACT FEATURES—FOLLOW SHIPS

In the FFG program, the Navy has lessened the shipyard exposure and improved the risk sharing features more equitably than had been provided in past shipbuilding contracts.

The philosophy has been recognized that the Shipbuilder generally should be expected to assume only those risks which he has some reasonable opportunity

to control. The risk mitigation and risk sharing features incorporated into the various phases of the FFG program have been well-conceived and undoubtedly contribute to the success of the program to date. This attitude of mutual respect for each other's problems and concurrence on a common goal provide guidance for success in delivering cost-effective fighting ships to the Fleet on time.

We submit the following comments which we feel have contributed toward providing better Government/Contractor relations.

*a. Fixed price incentive*

The "70/30" cost sharing feature of these Fixed Price Incentive Fee (FPIF) contracts mitigates the cost risk inherent in a firm fixed price contract. It allows an opportunity for the Contractor to gain rewards for extraordinary performance, and gives him limited protection against disastrous losses if he misses the established targets.

*b. Escalation*

The escalation provisions that have been included for both labor and materials are a dramatic improvement over past "economic price adjustment" clauses. However, there exists a continued disparity between the actual evolved labor rates and the allowable indices written into our contracts.

*c. Bilateral changes*

The Navy has adhered to its stated intent to implement changes in these contracts exclusively on a bilateral basis. This policy undoubtedly serves to identify potential cost/schedule risks prior to any Navy's commitment to those risks. However, complete avoidance from unilateral changes could add substantially and unnecessarily to the cost of enacting any future "mandatory" changes.

Our experience to date indicates that there has been unusually minimal growth for contracts of this size and time duration. For your information, we include the data on our original awards and their status as of the end of November 1978. These ships were awarded to us at the end of February in 1976, 1977 and 1978.

	Original base contracts	Base contracts as of Nov. 30, 1978	Growth percent
<b>At Todd, Seattle, total of 8 ships:</b>			
Target cost.....	\$356, 181, 982	\$373, 132, 832	4.76
Target profit.....	41, 662, 691	43, 798, 962	5.13
Target price.....	397, 844, 673	416, 931, 794	4.80
Ceiling price.....	445, 227, 478	466, 422, 366	4.76
<b>At Todd, Los Angeles, total of 9 ships:</b>			
Target cost.....	396, 616, 715	413, 485, 295	4.25
Target profit.....	46, 812, 764	49, 204, 357	5.11
Target price.....	443, 429, 479	462, 689, 652	4.34
Ceiling price.....	495, 770, 895	516, 856, 619	4.25

*d. Problem identification reports*

The terms in our contracts obligate the shipyard to submit timely reports of "contract problems". Such emphasis directs high-level attention to find solutions to major problems. This policy puts all parties on notice that definitive actions must be taken in order to mitigate cost/schedule impacts.

*e. Milestone penalties*

Our contracts establish a series of milestone events with appropriate dates which should be met to insure timely performance toward an orderly completion. Failure to meet these dates exposes the shipyard to progress payment withholding penalties thus compelling the Contractor to achieve milestone progress. The following data shows our performance to date at both Los Angeles and Seattle yards.

## FFG PROGRAM—TODD, LOS ANGELES, CURRENT REPORT OF CONTRACT MILESTONES

Milestone item	FFG No.	Contract date	Actual date accomplished
Start fabrication.....	9	Mar. 14, 1977	Jan. 28, 1977
	12	July 4, 1977	Apr. 29, 1977
	14	Mar. 6, 1978	July 20, 1977
	19	Oct. 2, 1978	Jan. 6, 1978
	23	Mar. 5, 1979	June 2, 1978
Lay keel.....	25	July 2, 1979	Oct. 6, 1978
	9	Aug. 10, 1977	July 13, 1977
	12	Jan. 11, 1978	Dec. 14, 1977
	14	Nov. 15, 1978	Aug. 7, 1978
	19	Apr. 18, 1979	Dec. 19, 1978
Load main machinery.....	23	Sept. 5, 1979	
	25	Jan. 16, 1980	
	9	Aug. 2, 1978	Apr. 18, 1978
	12	Jan. 12, 1979	Sept. 7, 1978
	14	May 30, 1979	
Complete hull assembly.....	19	Oct. 1, 1979	
	23	Mar. 3, 1980	
	25	July 1, 1980	
	9	Nov. 6, 1978	July 14, 1978
	12	Apr. 9, 1979	Dec. 11, 1978
Launch.....	14	Aug. 27, 1979	
	19	Jan. 4, 1980	
	23	June 6, 1980	
	25	Oct. 3, 1980	
	9	Nov. 11, 1978	July 29, 1978
	12	Apr. 14, 1979	Dec. 16, 1978
	14	Sept. 1, 1979	
	19	Jan. 12, 1980	
	23	June 14, 1980	
	25	Oct. 11, 1980	

## FFG PROGRAM—TODD, SEATTLE, CURRENT REPORT OF CONTRACT MILESTONES

Milestone item	FFG No.	Contract date	Actual date accomplished
Start fabrication.....	10	Mar. 3, 1977	Feb. 11, 1977
	17	June 1, 1977	May 17, 1977
	18	Nov. 1, 1977	Oct. 14, 1977
	20	Feb. 28, 1978	Feb. 17, 1978
	22	June 30, 1978	June 29, 1978
Lay keel.....	28	Jan. 15, 1979	Dec. 12, 1978
	10	June 1, 1977	Apr. 29, 1977
	17	Sept. 1, 1977	July 29, 1977
	18	Apr. 1, 1978	Mar. 1, 1978
	20	Aug. 3, 1978	June 21, 1978
Load main machinery.....	22	Jan. 4, 1979	Dec. 1, 1978
	28	May 1, 1979	
	10	Sept. 11, 1978	June 8, 1978
	17	Jan. 9, 1979	Nov 6, 1978
	18	June 6, 1979	
Complete hull assembly.....	20	Sept. 21, 1979	
	22	Jan. 21, 1980	
	28	Sept. 17, 1980	
	10	Nov. 15, 1978	Oct. 30, 1978
	17	Mar. 23, 1979	
Launch.....	18	Aug. 15, 1979	
	20	Dec. 7, 1979	
	22	Apr. 7, 1980	
	28	Nov. 14, 1980	
	10	Mar. 31, 1978	Mar. 1, 1978
	17	Aug. 1, 1978	June 21, 1978
	18	Jan. 2, 1979	Dec. 11, 1978
	20	Apr. 30, 1979	
	22	Sept. 28, 1979	
	28	Jan. 23, 1980	

*f. Cost/schedule control system (C/SCS) ; DOD instruction 7000.2*

One requirement at the start of the program directed the shipyard to produce an approved, sophisticated management system which established the concepts of visibility and accountability within the Todd management structure, as well as our relationships with the Navy. After almost three years of conforming to

C/SCS, we believe the concept has accrued definite benefits for both Todd and the Navy. The long list of specific essential reports creates successive due dates which the Contractor must respond to and permits the Government to monitor costs and schedules. The Quarterly Progress Production Conference (QPPC) has proven to be an especially vital forum for periodic assessment of our mutual efforts.

#### V. INNOVATIVE TECHNICAL FEATURES

In the technical area of the FFG-7 Class contracts, there have been certain innovations and improvements over previous practice on Naval vessel construction.

##### a. Design areas

Two examples that fall in the design area were the early participation by potential shipbuilders in ship design support and the concept of validated drawings.

In a competitive procurement, to which four shipyards responded, the Navy selected two companies (Bath Iron Works and Todd Seattle) to provide design review contemporaneously with the Naval Ship Engineering Center in the development of the FFG design. The facilities at Todd Seattle are significantly different from those at Bath Iron Works, as are climate and the characteristics of their work forces. Thus, the naval design community promoted the advantage of injecting experienced shipbuilder input into the design over a range of parameters to assure that the FFG could be built in any destroyer-capable yard. This plan was carried out through award of the follow ship contracts.

The concept of validated drawings falls between two previous Navy practices. In the first case the Navy had made lead ship drawings on a "no Navy responsibility" basis available to follow builders. In the second case, "non-deviation" drawings were supplied and the builder was allowed absolutely no construction latitude. The new validated drawing concept, made possible in part by the two-year gap between lead and follow ships, gives the follow builder the assurance that, assuming quality performance, a ship built to the drawings will be accepted by the Government as meeting the specifications. On the other hand, deviation from those drawings is allowed to suit individual shipbuilder production practice provided the deviation is within the ship specification requirements. Drawing validation reduced the shipbuilder's risk and, therefore, was a definite consideration in the cost estimating. Meticulous control is required to assure that the validated drawings do accurately describe the ships to be built within the contract terms, and the control and correction process results in a rather large number of small changes. This permits early incorporation of all the corrections discovered on the lead ship as well as upgrading to keep pace with systems advancement.

##### b. Materials area

The Navy program management decision to furnish certain critical equipment is beneficial for the program. Gas turbine propulsion engines with reduction gears and high-speed diesels for electric power generation had long lead times for the production runs necessary for a large number of class ships. The result of this decision is that this vital equipment has been delivered within contractually required dates and allowed yard production to proceed on planned schedules.

The Navy tasked the lead shipbuilder to negotiate option agreements for up to 30 follow shipsets of 42 mechanical and electrical items called Standard Option Equipment. This made it simpler for the shipbuilders to exercise options with vendors interested in providing military equipment. The process also assured follow shipbuilders of the availability of the equipment and allowed fixing the detailed design into the mechanical and electrical systems.

##### c. Productivity assistance area

The availability of lead yard data to the follow shipyards has proven of great value because of the two-year gap between lead and follow ship. Availability of such things as lead yard material lists, test procedures and trial data were available in a useful time frame. Production data such as the lead yard work packages, welding sequence, piping, and ventilation sketches, structural patterns and steel nesting sketches were valuable additions. These things speeded up early planning and, in some cases, made it unnecessary to duplicate prior efforts in developing information.

Past programs have had scale models or mock-ups of machinery and combat systems spaces. The evolution in FFG was to create a combat system on land, configured identical to that proposed for the ship. It allowed debugging the complex computer-based combat system and especially the software associated with it. Operating the test site also disclosed operational limitations which were eventually eliminated by making and testing the new arrangement in the land based test site long before the follow ships were even close to that phase of production. In addition, the plan to assemble and operate each follow shipset of combat equipment and "grooming" it with its own software (data tapes) should result in minimum deficiencies on follow ships.

The propulsion system land based test side proved its value when operating the system under load disclosed longitudinal vibration problems early enough to make a design change with little impact on the majority of follow ships. The training provided for shipyard installation and operation personnel will be invaluable in smoothing out the test phase of construction. Instead of learning by trial and error, the shipyards' installers and operators will have the benefit of training by personnel who have operated the land based test sites.

Another cost saving device is minimization of first-article testing. Elimination of this redundant testing deletes a cumbersome administrative process. Now acceptance is automatic whenever the manufacturer certifies the equipment furnished as being identical to the lead or earlier ships for which such testing has been done.

## VI. CURRENT STATUS OF TODD FFG PROGRAM

### *a. Contract summary*

1. Two Todd shipyards have four contracts to build seventeen frigates. Three of these ships will be for the Royal Australian Navy.

2. As of this time Todd has met and improved on every milestone date listed in its contracts.

3. All contracts are presently within the schedule targets and within contract cost constraints.

### *b. Construction summary*

1. A total of 5 ships have been launched and are being outfitted at our piers.

2. Four additional ships are under construction on our building ways.

3. Three more ships are in various pre-assembly stages in our plant facilities.

4. The first flight of three vessels at Los Angeles is approximately 60% complete.

5. The first flight of three vessels at Seattle is approximately 56% complete.

### *c. Delivery schedule*

1. Six ships in 1980.

2. Five ships in 1981.

3. Six ships in 1982.

### *d. General attitude*

1. Both Los Angeles and Seattle Divisions, as well as Todd Corporate offices are most enthusiastic and optimistic for the existing program.

2. We are stimulated by the cooperative spirit in evidence by all Navy and Todd personnel who are engaged in and connected with achieving a successful implementation of the program.

3. We genuinely believe in the design and value of this class vessel toward improving United States Fleet capability. We trust that wisdom will prevail to continue funding and allotment for additional vessels in future adequate numbers so that sufficient ships may be completed to carry out their designated functions on the Naval Frontier.

Senator PROXMIRE. All right, sir. Thank you very much.

Mr. Gilbride, has the Navy consulted you about the need to redesign the stern?

Mr. GILBRIDE. Mr. Chairman, it was known in the industry that a redesigned stern was contemplated. Our people knew of it. We knew that it was not designed, they had not developed the detail design of it.

Senator PROXMIRE. How was it known in the industry? What kind of information was it? Was it just a rumor or was it an article written somewhere?

Mr. GILBRIDE. No; our program managers, both of whom are here with me, are in consultation with Program Office.

Senator PROXMIRE. Fine. Now did the Navy actually tell those program managers that they were going to redesign it?

Mr. GILBRIDE. Mr. Peterson is our program manager at Los Angeles.

Senator PROXMIRE. Mr. Peterson.

Mr. PETERSON. Speaking for the Los Angeles Division program, Mr. Chairman, we were aware of the LAMPS III upgrading or the phases of the LAMPS I through LAMPS III of the ASW helicopter. I say from the inception of the ship designing phase. It was well known—

Senator PROXMIRE. How were you aware of it and how was it well known?

Mr. PETERSON. Well, in 1976, for instance, there was, I think, adequate testimony before various committees of Congress that there would be an upgrading of the helicopter capability. However, the implications of that upgrading of the LAMPS III helicopter on the stern configuration itself was definitized to us basically as a contemplated change in the program in about August of this past year in the form of the FFG third flight fiscal year 1979-80 request for proposals.

So the knowledge that some uncertain stern configuration change was to be made was certainly not something that we could take into account in our construction because our job is to take the contract that is—

Senator PROXMIRE. I have a more specific question here, not whether you knew about it or guessed about it or thought it was a likelihood inevitably, but this is a question I asked yesterday of Mr. Harvie of the Bath Iron Works.

Did the Navy ask the shipbuilders where the stern modification could be incorporated in the first 26 ships during construction and what the effect would be on costs and scheduling?

Mr. PETERSON. The answer to that question is no, sir.

Senator PROXMIRE. They did not ask you?

Mr. PETERSON. They did not until the fiscal year 1979 program.

Senator PROXMIRE. See, because my conclusion was that, while there are very able people in the Navy and I have great admiration for them and they might not know everything and they might know a little more about what the cost would be, how much the delay would be, what their options really are rather than just saying we are going to put the thing to sea and pull it back.

Mr. GILBRIDE. May I answer the second part of that question?

We were not asked, but I think in all fairness, what your subcommittee is seeking, I must state that we would have discouraged incorporating that into the program because of the allaying and disruptive impact on the program.

Senator PROXMIRE. I understand, too, you would run into a lot more trouble with Congress if you have to come back with a change that way rather than a ship that is built in one way and then sent to sea and brought back and reconstructed.

Mr. GILBRIDE. My answer was not based on that, sir. We have precisely planned this program, having evaluated the cost. Now had this design been completed and that design was given to us, say, today, we would have impact of the 800 construction plans that built this ship and this change would impact on 500; 50 feet of the ship which is closed in first is the stern area. That is where we would have to stop work and regroup and replan our program.

Senator PROXMIRE. How about the ships where you have not started work? You have not started work on some of those.

Mr. GILBRIDE. Here is your problem there.

Senator PROXMIRE. That was most of the ships.

Mr. GILBRIDE. We have 12 ships underway right now and we are ahead of schedule. We have five more which we are planning to start next year. We are considering starting those in the next 6 months, so it would really impact on the planning of the whole program. Whereas when you are talking just the modification, it does not seem like a large item in new construction, a change of this size at this phase is a very costly and serious delaying factor.

Senator PROXMIRE. If the Navy had come in a year ago and said, "We are going to change it, but we don't want you to change anything that is underway; we don't want you to change anything that is going to be built in the next 6 months, but beginning in the fall of 1978 we want you to build a broader stern so you don't have to build it one way, send it to sea, bring it back, put it in drydock for 6 months or a year and then have to reconstruct"—now would that not be a possible option to be considered?

Mr. GILBRIDE. It would have been an option, but it would be very, very costly indeed. I think one of the problems—

Senator PROXMIRE. Have you made any study to determine whether it would be more costly than what we are going to have to do?

Mr. GILBRIDE. We didn't make any study, no.

Senator PROXMIRE. Then how do you know?

Mr. GILBRIDE. We have been in new construction, sir, since way back when. In fact, our roots go back to the building of the Monitor, so we have a great deal of history with respect to claims.

One of the problems you would have with this, sir, is not the direct cost, it is the delay and disruption or the rippling impact on work which is not started, and that has been one of the most difficult things for the Navy to get their arms around for the last few years and it is a fact of life that we are very familiar with.

Senator PROXMIRE. Can you estimate what it would cost to build a modified stern during construction if that would be cheaper?

Mr. GILBRIDE. In my judgment it would not be cheaper. It would be considerably more costly because of the delay and disruption.

Senator PROXMIRE. That does not make any sense at all. Here you have a situation where it would be cheaper actually to build something the way you don't want it and then send it out to do a job and then call it back a year later, and then build it the way you do want it. You are saying it would be cheaper to do that than to build it right in the first place?

Mr. GILBRIDE. We have built up our manpower on the construction of this ship. Were we to impact and change that now on 50 feet of the

most sensitive portion of the vessel, it would probably delay the vessel. Senator PROXMIRE. Sure, I would agree if they came in now and told you 6 months ago. Supposing they came in late 1976 or early 1977 and said, "We are going to give you a lag time. Now we want you to work this into your schedule over the next years so that you can minimize the cost."

Mr. GILBRIDE. It would have delayed the vessel.

Mr. Chairman, anything can be done for money. It would have delayed the vessel because at that point in time our planning had all been accomplished, our material—

Senator PROXMIRE. How long would the delay have been?

Mr. GILBRIDE. I would just say as a professional's guess 8 or 9 months.

Mr. Peterson or Mr. Squires, would you comment?

Mr. Peterson, what would you say?

Mr. PETERSON. I would agree with that. If I did a little analysis, Mr. Chairman—

Senator PROXMIRE. Let's just say the testimony we have here that the Navy confirms it would be in drydock 6 months anyway and the GAO says 6 to 12 months to have it redone, maybe more.

Mr. PETERSON. I think, as was pointed out, the plan for the retrofit which then would have the opportunity of being thoroughly preplanned prior to the ship's availability would be in conjunction with the regularly scheduled overhaul of the ship. This would be, of course, in my judgment, although I am addressing myself to the impact on the new construction tasks that we were contracted for. I do believe in my judgment that would certainly be the way to go to do the retrofit in a preplanned drydocked area, which would then make the stern configuration change available by the time that the ASW helicopter LAMPS III version were available. However, if this stern change had been ordered back in, let us say, the earliest conceivable detailed design, the Navy could have produced, if they had taken out all the stops in the design phase—and I would like to take the responsibility for these figures because they were based upon my analysis since yesterday's hearing—if sufficient detail design information had been made available to us a year later in September 1977, my best judgment of the impact on the ships under contract at Los Angeles would have been to delay the delivery of the first ship by 10 months, varying, and we would have gone into a recovery cycle that would have resulted in a minimum delay of the ninth ship by about 3 months.

This is a very preliminary type analysis, but it is based upon many years of shipbuilding experience and also—

Senator PROXMIRE. Then the delay would be somewhat less perhaps than the 6 to 12 months that we were told before.

Are you aware, Mr. Gilbride, of the FFG survivability problem and steps being taken to correct them by the Navy?

Mr. GILBRIDE. Mr. Chairman, I am aware of it, primarily because of the hearings yesterday and today. We get into the shipbuilding end of the business. We are the builders.

Senator PROXMIRE. You didn't know that they are putting kevlar on the ship?

Mr. GILBRIDE. Yes, I certainly knew that because it is a change. I am well aware of that but—



Senator PROXMIRE. What do you mean when you say were not that available.

Mr. GILBRIDE. Survivability problem. I don't know if there is a problem.

Senator PROXMIRE. They just put the kevlar on because—

Mr. GILBRIDE. We built many ships, destroyers, over the years without kevlar.

Senator PROXMIRE. Could this not this have been avoided by better ship design? You say you have built ships without kevlar. Could you not have built the ships without them?

Mr. GILBRIDE. I think you have more protection in this ship than other ships.

Senator PROXMIRE. Would there not be a way to put the extensive equipment below the superstructure?

Mr. GILBRIDE. There is extensive equipment practically throughout the ship, sir, and it is a very difficult thing to do. I think this is an added factor with respect to survivability.

Senator PROXMIRE. Are you saying that we don't need the kevlar?

Mr. GILBRIDE. No, I am not saying that at all. I am saying it is an added safety factor. I think it is a good thing.

Senator PROXMIRE. You think it was not subject to cheap kill without it? You are the first witness to say that.

Mr. GILBRIDE. I am not an expert in that field, Mr. Chairman, and I really cannot answer that question.

Senator PROXMIRE. Can you tell us how much it would cost to completely solve the problem of cheap kills, or can it not be solved?

Mr. GILBRIDE. I am not in a position to do that, sir.

Senator PROXMIRE. Well, you are a shipbuilder.

Mr. GILBRIDE. That is right.

Senator PROXMIRE. You are probably as expert as they come. You are probably in a better position than the Navy.

Mr. GILBRIDE. It would take a lot of study, Mr. Chairman, and I suppose it could be done but I heard the Secretary of the Navy saying they are addressing that problem and I think they are in a far better position to address it than we are.

Senator PROXMIRE. Why is there so little margin for future weight growth? Is this a deficiency in the design?

Mr. GILBRIDE. Take that, Mr. Peterson.

Would you repeat that, please?

Senator PROXMIRE. Why is there so little margin for future weight growth? We are told there should be a margin here for a couple of reasons. Now you find you need more space.

No. 2 is timing on the technology changes. In order to incorporate that technology into the ship, you need more space; otherwise, the ship's life has to be thwarted.

Mr. PETERSON. Mr. Gilbride asked me to respond to that. Basically the question of weight growth margin is a characteristic of the ship that is determined during the concept in the preliminary design phase. These are initial design phases under which the ship's mission is to find them prior to the participation of the shipbuilder in the program so I would basically say that we as the shipbuilder would not be in a position to respond to that question.

Senator PROXMIRE. But as shipbuilders you must have some opinion as to how this could affect the flexibility of the ship and the life of the ship.

As I pointed out, the testimony was that unless you have about 150 tons left there over what you might need for making future adaptations, you are going to have to shorten the life of the ship.

Mr. GILBRIDE. Mr. Chairman—

Senator PROXMIRE. You participated in the design.

Mr. GILBRIDE. I ask Mr. Squires to take this up.

Senator PROXMIRE. Mr. Squires.

Mr. SQUIRES. Yes, I ask to take this one, Mr. Chairman, because I was a part of the Todd team during the ship system design support activity.

Senator PROXMIRE. Was that early in 1972?

Mr. SQUIRES. Yes. The contract was awarded in April of 1972.

It is important, I think, to put the questions concerning weight margin in the context of the responsibilities and the experience of the parties involved. The selected shipbuilder who was selected as a part of that early competition had as a team member the senior destroyer designer in the United States and perhaps in the world and it was on the basis of that expert support that the margin designs were made.

We at Todd are not destroyer designers, we are destroyer builders and as builders and not designers, we are not in a position to answer questions about the details of margin development.

Senator PROXMIRE. Well, let me read this sentence that comes from the second page of your prepared statement. You say, "As a result of this solicitation, in early 1972 the Navy chose two competing yards—Bath Iron Works and Todd-Seattle—to participate in the design of this class vessel."

What does the participation mean if you don't have the responsibility?

Mr. SQUIRES. The particular reason for inviting shipbuilders to participate in the design activity was to utilize their experience in ship construction and our prime responsibility was to comment on the productibility of that design and recommend to the Navy Ship Engineering Center any changes which we felt could be made that would make the ship simpler and less expensive to build and they had to decide whether those recommendations could be accommodated within the design parameters.

Senator PROXMIRE. Who does Congress look to if the life of the ship is abbreviated because the design is inadequate, because you don't allow enough leeway or technological improvements which we know are going to come along in the next 25 years?

Who is responsible?

Mr. GILBRIDE. We are not responsible, Mr. Chairman.

Senator PROXMIRE. Why not?

Mr. GILBRIDE. Because our participation was designed—

Senator PROXMIRE. That is not planned obsolescence?

Mr. GILBRIDE. Please, sir. Our participation was designed support for productability so that the ship, when designed, could be built in more than one yard, so the ship was not designed to suit the facilities or that work mix in a particular yard. That was the function of our design support.

Senator PROXMIRE. You say that is the beginning and end of your responsibility?

Mr. GILBRIDE. With respect to that phase, yes, sir.

Senator PROXMIRE. Well, with respect to the overall situation, you wash your hands of it and indicate you don't have any responsibility at all.

Mr. GILBRIDE. We have responsibility, sir, to build the ship within the cost and time constraints.

Senator PROXMIRE. So the taxpayer does not get the kind of factory warranty that you get on a dishwasher.

Mr. SQUIRES. The warranty is prepared in the contract. The warranty deals with the quality and reliability of the shipyard's workmanship and the equipment which he furnishes.

Senator PROXMIRE. So if the ship is no good after a year, that is tough luck.

Mr. SQUIRES. As I explained earlier, the ship design was created by a different company or different companies who were selected on the basis of a procurement which included the analysis of their ability to perform that function effectively.

Senator PROXMIRE. Senator Warner has a question.

Mr. GILBRIDE. Yes, sir.

Senator WARNER. Mr. Gilbride, you and I have sat across the table many times.

Mr. GILBRIDE. Yes, sir.

Senator WARNER. It is a pleasure to again meet. As a matter of fact, I think we worked on this contract; it was executed shortly after I became Secretary of the Navy.

Mr. GILBRIDE. That is right, sir.

Senator WARNER. As you go back over the illustrious history of your company's affiliation with shipbuilding in national defense, you will recall the manner in which the Navy designed ships before this contract; namely, the Navy exclusively prepared the design and specifications, then rolled the plans out on the table for contractors to bid on. For this contract, however, the Navy selected several contractors to compete during the design phase.

Which of the two procedures would you prefer, the old one or the new one under which the ship was built?

Mr. GILBRIDE. We very much prefer the new one.

Senator WARNER. While I agree that you have no legal responsibility with respect to the design of the ship, certainly there is a moral one there.

Mr. GILBRIDE. There is, Senator Warner, and we fulfilled that fully. We have given comments, made suggestions. I think the Navy program manager would support that and we are very conscious of the products that we built.

Senator WARNER. I think so. Would you not also agree that in the interchange that goes on in this conceptual phase that there are really no restrictions as such put upon you as a designer in giving to the Navy of your years of expertise?

Mr. GILBRIDE. Not at all. To the contrary, it was encouraged in this instance.

Senator PROXMIRE. Are you satisfied with those narrow growth margins? Are they right as far as you are concerned?

Mr. GILBRIDE. Mr. Squires.

Mr. SQUIRES. We have not spent the energy to analyze the design and this is what is usually termed in the trade as the scientific end of the design, not the instability of it. We have not analyzed it and therefore would be in no position to comment.

Senator PROXMIRE. As Senator Warner put it, why is there not a moral responsibility to give an opinion to the Navy on that?

Mr. PETERSON. I would like to address this point, Mr. Chairman, because I think there is something that needs clarification here. In the ship design and construction process there is a division of responsibilities and also a delineation of authority that is very similar to the various branches of the Government.

The start of the definition of the mission of the ship and its basic characteristics must belong to the Navy. They are going to be the operators of the ship and therefore there is a phase of design called the concept and preliminary design phase in which the basic characteristics of the ship are laid out.

It would be highly inappropriate, although we have a great professional interest and would be very quick to point out anything in that design that we as professional, competent shipbuilders would consider to be unsafe. We would immediately call such a thing out.

Senator PROXMIRE. You say unsafe.

Mr. PETERSON. The people involved in this are highly competent architects and ship operators who are in a much better position than we to judge the characteristics of the ship that is necessary.

Our participation, then, begins after that concept design phase as a shipbuilder to point out to the Navy anything in the ship system's design phase once this ship is preliminarily designed which would be adverse to productability and I think that clarification needs to be made.

Senator PROXMIRE. But it is discouraging. You won't even give us an opinion on the growth margin.

Mr. PETERSON. My professional opinion is that the Navy project manager's answer during the previous testimony was very adequate, that the 50-ton margin over and above the space and weight allocation and the impact on the naval architectural characteristics of that ship were already taken into consideration for the planned changes is an adequate, in my judgment, design margin for future growth and he certainly pointed out several factors that went into that consideration.

Senator PROXMIRE. That is OK but it is only one-third of the 150 tons that the GAO said was the usual ship of this size.

Mr. PETERSON. Mr. Chairman, I must also point out that in previous contracts that 150-ton margin would also have had to accommodate the already planned changes which have not been definitized and this is not the case of the FFG-7 class. They had been provided for in the 50-ton margin over and above that.

Senator PROXMIRE. They knew what you were going to have to use, they were talking about contingencies as they indicated would develop on the 23-year life of the ship. We were not talking about what you knew you were going to have to change.

Mr. GILBRIDE. Mr. Chairman—

Senator PROXMIRE. Excuse me.

Mr. GILBRIDE. I was going to say, sir, that we have a different opinion here. Mr. Peterson is well qualified for giving an opinion on this, he is a graduate of the Naval Academy, a graduate of MIT, and his opinion differs from the GAO in this instance. This is a professional opinion.

Senator PROXMIRE. In your prepared statement, you have a very helpful and interesting table. Other witnesses have not been able to give us this kind of data. Your table of contract prices indicates a growth here, a change from the original base contract to the base contract as of November 30, 1978.

What was the date of the original base contract?

Mr. GILBRIDE. The original contract was February 1976, sir.

Senator PROXMIRE. February 1976.

Mr. GILBRIDE. Yes, sir.

Senator PROXMIRE. Is that all of them or just the first one?

Mr. GILBRIDE. That was for the first contract but the dollars were January 1975 dollars. The contract in February 1976 was in January 1975 dollars.

Senator PROXMIRE. All right. That applies for the 17 ships?

Mr. GILBRIDE. No; that applies for the first six ships.

Senator PROXMIRE. The first six ships.

Mr. GILBRIDE. The remainder, 11 vessels, what was the date of those? May 1976 dollars.

Senator PROXMIRE. February and May 1976.

Mr. GILBRIDE. Yes.

Senator PROXMIRE. All right.

Now, you have a growth target cost growth of 4.7 and it varies between 4 and 5 and a fraction.

Mr. GILBRIDE. Yes.

Senator PROXMIRE. 4 and a fraction, 5 and a fraction. That is the percentage throughout. Does that allow for inflation?

Mr. GILBRIDE. No; this is exclusive of inflation. This is merely for change orders, bilateral change orders.

Senator PROXMIRE. Well, how much will inflation enter?

Mr. GILBRIDE. Well, inflation, sir, is based upon two labor indexes, the Bureau of Labor Statistics indexes prepared by the Navy and that is developed every month, I believe, and we are paid whatever that index reflects.

Senator PROXMIRE. I am going to ask Mr. Kaufman to follow.

Mr. GILBRIDE. Surely.

Mr. KAUFMAN. Mr. Gilbride, as we understand it, these figures are close to the average percentage throughout of contract prices for ships under construction as a result of change orders.

Mr. GILBRIDE. Yes.

Mr. KAUFMAN. So they are in line with growth change rates for other ships built in recent decades.

Mr. GILBRIDE. Correct.

Mr. KAUFMAN. They, therefore, do not take into account the inflation that Senator Proxmire asked about.

Mr. GILBRIDE. Well, that is automatically taken into account by the contract department but this is merely the growth resultant in change orders.

Mr. KAUFMAN. What you are saying is the original base contract and the base contract as of December have basically the same assumptions as far as inflation is concerned?

Mr. GILBRIDE. Excuse me, sir, say that again.

Senator PROXMIRE. The original base contract, the first column, and the base contracts as of November 30, 1978 have the same inflation assumptions?

Mr. GILBRIDE. Yes.

Mr. KAUFMAN. You assume the inflation is 7 percent, 8 percent?

Mr. GILBRIDE. Well, whatever it is. Whatever the Bureau of Labor Statistics index tells us it is, whatever it might be—7 percent or 6 percent or whatever.

Senator PROXMIRE. These figures don't indicate you are doing any better during construction than other shipbuilders are doing; this is just the average increase.

Mr. GILBRIDE. Well, I cannot comment on what the other shipbuilders are doing. I think it is a very minimal growth over a period of time.

Senator PROXMIRE. I am told if you look at the changes, that is all you ever see.

Mr. GILBRIDE. That is not quite true. It varies tremendously. It varies in commercial business, it varies in Navy business.

Senator PROXMIRE. You just told us that.

Mr. GILBRIDE. Mr. Kaufman asked the question, was it 5 percent and in many contracts, it is 5 percent. In many contracts, it is more.

Senator PROXMIRE. Can you break out the contract prices of the ships awarded in each of the years, 1976, 1977, and 1978, and tell us how much inflation you experienced in those years?

Mr. GILBRIDE. I will have to get that for you. I don't have that at my fingertips.

Senator PROXMIRE. Will you get that?

Also give us the average unit contract price for the FFG's and what the costs are to complete.

Mr. GILBRIDE. I will do that.

Senator PROXMIRE. Don't you have that now? You should know that.

Mr. GILBRIDE. Yes; I know that they are within the contract costs. I know that.

Senator PROXMIRE. What is it?

Mr. GILBRIDE. Well, let's take here. The base contract here for the eight vessels is \$416 million, so 8 into 416 is—

Senator PROXMIRE. Not including inflation.

Mr. GILBRIDE. Not including inflation.

Senator PROXMIRE. So you have an open-ended escalator on inflation.

Mr. GILBRIDE. Yes. It reflects the inflation in various shipyards on the east and gulf and west coast but the greater preponderance is the inflationary factors on the east and gulf coasts, because there is a larger center of shipbuilding in those areas.

Senator PROXMIRE. So we never have any notion what the price is, that just depends on what happens to the cost-of-living index.

Mr. GILBRIDE. Yes; it is the index and we are not certain that it reflects all the costs. Only time will tell. We don't know what the inflationary facts are going to be in the future.

Senator PROXMIRE. Do you expect your costs to rise and if so, by how much?

Mr. GILBRIDE. Following the past patterns, I would think that the inflationary factors are going to continue because of the basic elements that go into the costs of building ships as to energy costs and so forth. I think they will continue, yes.

Senator PROXMIRE. Senator Warner.

Senator WARNER. No.

Senator PROXMIRE. Mr. Gilbride, we want to thank you and Mr. Squires and Mr. Peterson for your very helpful testimony.

Senator Warner has a question.

Senator WARNER. I would like to say that your yards, indeed, have contributed greatly to the betterment and improvement of American shipbuilding and I hope that you continue in your long, illustrious career in the future.

Mr. GILBRIDE. Thank you, Senator Warner.

Thank you, Mr. Chairman.

Senator PROXMIRE. Well, I would join Senator Warner in saying I cannot see any improvement in the contract over many others. The overrun is enormous. So far, one ship has been delivered and to date, I cannot see that this represents—Admiral Buckley was quoted as saying that is the best ship in 20 years. If it is, we are in trouble.

Mr. GILBRIDE. Well, Mr. Chairman, you understand I have a different viewpoint for sure. I think it is a splendid program. I think we are making excellent progress. I think it is a well-designed ship and I think it is an excellent program.

Senator PROXMIRE. Well, thank you, very much, gentlemen.

The subcommittee stands adjourned.

[Whereupon, at 12:20 p.m., the subcommittee adjourned, subject to the call of the Chair.]

