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The Honorable Les Aspin House of Representatives

Dear Mr. Aspin:

Pursuant to your letter of August 7, 1972, we examined the circumstances surrounding the Navy's settlement of four claims during June 1972. The claims involved were made by (1) Newport News Shipbuilding and Dry Dock Company, (2) North American Rockwell Corporation, (3) Westinghouse Electric Corporation, and (4) General Dynamics Corporation, Quincy Shipbuilding Division.

We reviewed claim settlement proposals and related documentation submitted to the Navy by the contractors. We also examined the Navy's analytical, legal, and technical data on the claims and interviewed Navy officials involved in the settlements.

We found that the Navy made payments only after extensive technical, legal, and financial reviews and negotiation -- ranging from 15 months to several years. The Defense Contract Audit Agency (DCAA) also examined the claims and issued audit reports.

We believe that the claims were adequately reviewed and negotiated to insure equitable settlements. The circumstances of each settlement are discussed in enclosures 1 through 4.

Official comments on this report have not been requested or obtained from the contractors or the Navy.

We do not plan to distribute this report further unless you agree or publicly announce its contents.

Sincerely yours,

Comptroller General of the United States

NEWPORT NEWS SHIPBUILDING

AND DRY DOCK COMPANY

The Newport News Shipbuilding and Dry Dock Company submitted to the Navy a \$41.9 million claim referred to as the HY-80 Omnibus Claim. The claim involved work on 11 nuclear submarines under 5 contracts awarded by the Navy from November 1962 to March 1965.

BACKGROUND

The claim was settled for \$20.6 million. Its title is somewhat misleading since only one segment, totaling \$21.3 million of the claim and \$11.9 million of the settlement, involved HY-80 steel used in constructing submarines. We discuss this segment in detail but do not discuss the other nine segments of the claim, which were settled in much the same manner as the segment on HY-80 steel.

After the loss of the U.S.S. Thresher in April 1963, a more strict Navy interpretation of Naval Ship Systems Command (NAVSHIPS) requirements for fabricating, welding, and inspecting HY-80 steel forced the contractor to develop more stringent procedures. The contractor contended that the Navy's interpretation constituted constructive change orders, since his work on earlier contracts had been acceptable to the Navy. NAVSHIPS agreed to consider this contention and permitted the contractor to submit a proposal for equitable adjustment. Estimated costs for each contract were submitted by December 1966. Subsequently, the Navy made technical advisory reviews (TARs) and the Defense Contract Audit Agency (DCAA) audited the initial estimates.

In January 1968, NAVSHIPS determined that constructive changes had occurred and that the contractor was entitled to an equitable adjustment. The Navy did not contest that the contractor had done additional work but rather stressed that the estimates included work provided for under the contracts. Subsequently, more Navy TARs and DCAA audits were made. In its audit, DCAA took exception to some costs primarily on the basis of the results of the TARs. As a result of final TARs and DCAA audits completed by October 1969, \$6.6 million of the contractor's \$21.3 million claim was questioned.

A legal review followed and in April 1970 the Associate Counsel, NAVSHIPS, issued a legal opinion that the contractor had been required to perform work over and above his contractual responsibility as a result of Navy action. The Associate Counsel concluded that the contractor could not have been on notice of increased responsibilities before negotiating the

first three contracts' prices since the contracts had been awarded before the Thresher loss.

The contractor, however, submitted its bid for the fourth contract after the Thresher loss, and the extent to which the contractor knew of changed contractual responsibilities was subject to question. The contract was awarded in May 1964. The Associate Counsel recommended that the extent of reduction in the claim be based on a technical evaluation. On the fifth contract, awarded in March 1965, he ruled that the contractor was on notice of its full responsibilities before it submitted the bid, and he recommended denying the entire claim related to the fifth contract.

The Navy accepted the legal recommendations and reduced its pricing objective for the HY-80 steel work by \$2,765,267. Thus, as a result of TARs, DCAA audits, and legal reviews, the Navy arrived at a pricing objective of \$11.9 million on the contractor's \$21.3 million claim related to HY-80 steel.

In April 1971, the Navy established a final pricing objective of \$20.6 million on the contractor's \$41.9 million claim. This pricing objective included \$11.9 million for the HY-80 steel segment of the claim. However, although the Navy's price was acceptable to the contractor, the Naval Material Command raised more questions which were not settled until April 1972.

The Naval Material Command and the NAVSHIPS Claims Review Board subsequently approved the claim. On June 23, 1972, contract modifications were issued and the claim was paid on June 30, 1972.

The questions you asked and the information we obtained are below.

"What were the original dollar amounts of the contractor claims and their justification?"

The contractor's claim totaled \$41.9 million and the final settlement was for \$20.6 million. The cost for fabricating, welding, and inspecting HY-80 steel accounted for \$21.3 million of the claim and \$11.9 million of the settlement. The contractor's justification centered around the Navy's stricter interpretation of the NAVSHIPS requirements which forced the contractor to develop new and more stringent procedures for fabricating, welding, and inspecting HY-80 steel. The contractor contended that this stricter interpretation constituted constructive change orders and pointed out that its implementation of the requirements in constructing 616 class submarines had been acceptable to the Navy but that this

same implementation in constructing 637 class submarines was not acceptable.

"Did the company provide sufficient documentation to justify their claims settlements?"

The contractor provided documentation supporting all segments of the claim. The Navy and DCAA reviewed most of the data and DCAA made audits to insure the contractor's compliance with Public Law 87-653, the Truth-in-Negotiations Act. The Navy used DCAA audit findings in arriving at the final settlement. The final settlement was for about 50 percent of the claim and, in part, was based on technical and legal interpretations.

"Did the Navy adequately attempt to independently evaluate the company's claim?"

The Navy made extensive reviews. Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP) NAVSHIPS engineers made technical reviews, contract specialists made contract reviews, DCAA made financial reviews, and NAVSHIPS counsel made legal reviews. SUPSHIP personnel estimated that 5 man-years were expended in reviewing and processing this claim. We believe the coverage was adequate.

"Did the Navy or the contractor provide historical cost data or develop standards for evaluation of their claim?"

All work under these contracts was complete before the final settlement and historical data were available. The cost estimates were supported by historical data or the contractor's judgment, as required by the Armed Services Procurement Regulations 3-807.3.

The Navy used the contractor's data in reviewing and evaluating the claim. A great deal of engineering judgment was involved. Standards developed by SUPSHIP for making technical evaluations were followed.

"Was the Defense Contract Audit Agency consulted concerning the estimating system of contractors?"

In May 1967 DCAA reported that it found the estimating system generally acceptable, in March 1971 it reported it was not acceptable, and in a June 1972 report it concluded that the estimating system was acceptable.

"Did the contractor provide a factual basis for proposed prices during the life of the contract?"

As we said earlier, the cost estimates submitted during the life of the contracts were supported by documentation in the contractor's file.

"Was defective or deficient HY-80 steel the basis for the Newport News claim?"

We found no indication that defective or deficient HY-80 steel was the basis of the claim. The HY-80 steel segment applied only to the interpretation of requirements for fabrication, welding, and inspection. SUPSHIP personnel assured us that the quality of the steel was not in question.

NORTH AMERICAN ROCKWELL CORPORATION

In June 1968, North American Rockwell submitted its initial claim for work on the Condor missile program. The background of this and subsequent claims and our responses to your specific questions on this claim are presented below.

BACKGROUND

The Navy began work in the early 1950s on a number of research projects to develop a technical basis for eventually developing a liquid propulsion system for a missile. On the basis of this earlier research and precontractual analysis from competing contractors, the Navy contracted for the development of the Condor with a liquid propulsion system. The Condor missile project began as an in-house Navy program in March 1961 to provide a highly accurate air-to-surface standoff missile with a conventional warhead for use against a variety of vital, heavily defended targets.

On June 29, 1966, North American Rockwell Corporation, Columbus Division, was awarded a fixed-price incentive contract to design, develop, test, and demonstrate the Condor guided-missile system. In September 1966 North American Rockwell issued a subcontract to the Thiokol Chemical Corporation's Reaction Motors Division to develop and produce the liquid propulsion system.

Thiokol had major problems during its development of the liquid propulsion system, so North American Rockwell terminated the Thiokol subcontract in September 1967. North American Rockwell transferred the effort to its own Rocketdyne Division where development work continued. At that time, North American Rockwell recommended to the Navy that it begin a backup solid propulsion development program, but the Navy did not accept this recommendation. On its own initiative, however, the contractor continued to explore the feasibility of a solid propulsion system for the Condor.

Although Rocketdyne was able to overcome many of the problems encountered by Thiokol, it also experienced major development problems with the liquid propulsion system. As these problems continued, North American Rockwell again recommended developing the solid propulsion system in February 1968. The Navy rejected this proposal in April 1968 and directed North American Rockwell to continue the liquid propulsion system development.

In April 1969, North American Rockwell recommended developing a solid propulsion system in lieu of a liquid propulsion system for the Condor. The Navy accepted this recommendation on July 31, 1969, and modified the contract to cancel the liquid propulsion system, and to substitute the solid propulsion system. This system was subsequently developed and successfully demonstrated for the Condor.

The questions you asked and the information we obtained are below.

"What were the original dollar amounts of the contractor claims and their justification?"

On April 23, 1968, Thiokol submitted a termination settlement claim to North American Rockwell in the amount of \$13,494,129. On June 10, 1968, North American Rockwell, in turn, asked the Navy to adjust the contract by \$31,989,516 to cover the Thiokol claim and additional excess costs incurred by Rocketdyne during its own development effort. This claim did not include any amount for developing the solid propulsion system.

The Navy disallowed this original claim because North American Rockwell had not validated Thiokol's claim. North American Rockwell subsequently evaluated Thiokol's claim and submitted a revised claim. By that time, the contract modification substituting the solid propulsion system had been issued. A specific provision of this modification, to which the contractor agreed, placed a \$40 million ceiling on the contractor's right of recovery for the claim settlement.

On September 30, 1969, North American Rockwell submitted a revised claim for \$49,105,504. The primary difference between this claim and the prior claim was the inclusion of the estimated cost of the solid propulsion system.

During May 1970, North American Rockwell and Thiokol agreed on a lump-sum settlement which North American Rockwell then submitted to the Navy. The Navy, however, informed North American Rockwell that it would approve such an agreement only as part of a total propulsion system settlement between the Navy and North American Rockwell. In response, North American Rockwell submitted the first part of its total claim package on February 26, 1971. Additional costs claimed by North American Rockwell amounted to \$51,496,681, which included all excess costs incurred during the liquid propulsion development effort, total costs for the proposed solid propulsion system, and applicable interest and profit.

Negotiations between the Navy and the contractor began on November 6, 1971, and ended February 14, 1972. The agreement reached encompassed final settlement of the liquid engine claim and pricing of the engineering change proposal for the solid propulsion system. The final claim settlement amounted to \$28.5 million, plus \$371,948 for additional work to be done. On June 28, 1972, the Navy paid \$18 million on the claim. Additional payments were made in fiscal year 1973.

The claim submissions and the final settlement are summarized in the following schedule.

Claim categories	Dates of claim submissions 6-10-68 9-30-69 2-26-71			Final settlement
Additional effort on liquid propulsion Schedule delay	\$22,765,765 6,084,345	\$23,606,422 8,347,798	\$22,802,145 8,451,128	\$ 9,005,560 5,194,440
Base claim	28,850,110	31,954,220	31,253,273	14,200,000
Profit Interest	3,139,406	3,674,735	3,594,127 2,601,891	800,000
Net claim for liquid pro- pulsion sys- tem	31,989,516	35,628,955	37,449,291	15,000,000
Engineering change proposal for solid propulsion system development		13,476,549	14,047,390	13,500,000
Net claim	\$ <u>31,989,516</u>	\$49,105,504	\$51,496,681	\$28,500,000

"Did the company provide sufficient documentation to justify their claims settlements?"

The contractor submitted three separate claim packages to the Navy, together with updated costs in accordance with specific Navy requests. Each package discussed separate cost categories in detail, including breakdowns of materials, labor, and overhead. The contractor also separately identified all profit claimed and, at the request of the Navy, specifically identified all interest expense. The contractor also retained a private law firm to investigate the validity of the Thiokol claim in response to the Navy's original position on this matter.

"Did the Navy adequately attempt to independently evaluate the company's claim?"

The Navy, in July 1970, established a Condor claim team to thoroughly investigate the validity of North American

Rockwell's propulsion system claim. This group reviewed pertinent data, interviewed knowledgeable Government and contractor personnel, evaluated each claim area, and issued a technical advisory report and a memorandum of law to summarize the Navy's prenegotiation position.

"Did the Navy or the contractor provide historical cost data or develop standards for evaluation of their claim?"

The contractor provided historical cost data which was reviewed by Government auditors, and the Navy developed recovery theory standards upon which the claim was evaluated. In preparing the Memorandum of Law, the claim team brokedown each technical aspect of the claim into the various recovery theories cited by the contractor, including alleged impossibility, misrepresentation, schedule delay and disruption, and interest expense. The Navy then evaluated each issue to arrive at its position on legal entitlement. The technical advisory report and the memorandum of law included the standards used by the Navy in its evaluation of the claim.

"Was the Defense Contract Audit Agency consulted concerning the estimating system of contractors?"

Besides evaluating the technical and legal aspects of the claim, the Navy used auditors to verify claimed costs. The Naval Plant Representative Office and the Defense Contract Audit Agency (DCAA) resident auditor reviewed and issued reports on each claim proposal and update submitted by the contractor. The auditors specifically reviewed those costs incurred for both Thiokol's and Rocketdyne's liquid propulsion system development effort and issued opinions on the validity of claimed costs.

The auditors also evaluated the contractor's engineering hours for claimed schedule delay, as well as costs incurred during the solid propulsion system development. Audit reports on both interest expense and profit claimed by the contractor were also issued. According to the claim settlement summary, the Navy deducted all costs which the auditors recommended be disallowed.

"Did the contractor provide a factual basis for proposed prices during the life of the contract?"

The contractor provided historical cost data and updated funding data which were reviewed by Government auditors; the Navy developed recovery theory standards against which the claim was evaluated.

WESTINGHOUSE ELECTRIC CORPORATION

In 1964 Westinghouse Electric Corporation (Westinghouse) was chosen to design and develop a long-range, high-performance torpedo. Shortly after the award, Westinghouse began to experience technical problems. As the seriousness of these problems surfaced, the Navy redirected and expanded the development program. The expanded program eventually led to the selection of another contractor in July 1971 to produce this torpedo for the Navy. Before Westinghouse's efforts were terminated, it submitted a claim to the Navy to recover program losses.

BACKGROUND

The original \$38.3 million claim, submitted to the Navy on March 16, 1970, included \$6.7 million for Westinghouse's major subcontractor, Sundstrand Corporation. In April 1970, the Navy set up a special group to evaluate Westinghouse's claim. The team technically and legally evaluated each subclaim, and the Defense Contract Audit Agency (DCAA) audited the estimated costs of the subclaims.

Westinghouse amended its claim several times, and by the time negotiations started on December 15, 1971, the claim totaled \$55.9 million. The negotiations were concluded in June 1972. On July 10, 1972, the Navy approved payment of \$8.2 million and paid Westinghouse through a contract modification on September 21, 1972.

The specific questions you asked and the information we obtained are presented below.

"What were the original dollar amounts of the contractor claims and their justification?"

The original claim submitted on March 16, 1970, was for \$38.3 million. Westinghouse amended its claim several times and at the time of negotiations it totaled \$55.9 million.

The total claim was broken down into 33 subclaims covering various segments of work, plus interest. The contractor based its justification for entitlement on (1) changes in contract requirements, (2) defective specifications, (3) defective Government-furnished property and facilities, and (4) faulty Government-furnished data.

"Did the company provide sufficient documentation to justify their claims settlements?"

Westinghouse's 3-volume documentation showed the nature of the work in detail, the related direct and indirect costs, and the legal premise for compensation for each subclaim. However, the estimated claim costs were not sufficiently broken down to show costs previously recovered under the basic contract and subsequent modifications.

"Did the Navy adequately attempt to independently evaluate the company's claim?"

The Navy set up a special team in April 1970 to evaluate Westinghouse's claim. The team technically and legally evaluated each subclaim making up the \$55.9 million. Then the Navy had DCAA audit those subclaims for which Westinghouse had possible legal entitlement.

DCAA traced the costs claimed to Westinghouse's cost records to show that they were related to the claim, but Westinghouse did not segregate basic contract costs from those outside the scope of the contract. Therefore, it was not always possible to relate direct costs to the claim elements and DCAA qualified its audit reports for this reason.

"Did the Navy or the contractor provide historical cost data or develop standards for evaluation of their claim?"

Westinghouse provided estimated costs for each subclaim, supported by historical cost information. The nature of work was described in detail and the costs were broken down into direct and indirect. However, the documentation did not segregate basic contract costs from the claimed additional costs.

"Was the Defense Contract Audit Agency consulted concerning the estimating system of contractors?"

DCAA's March 1971 report on the contractor's estimating system said that the contractor's estimating system needed substantial improvement in several areas to assure that data included in future price proposals was, among other things, based on accurate, complete, and current pricing information.

"Did the contractor provide a factual basis for proposed prices during the life of the contract?"

The team concluded that Westinghouse was entitled to full or partial compensation on 18 of the 33 subclaims. The team acknowledged Westinghouse's premise of defective specifications, increased Government requirements, and/or defective Government-furnished material, facilities, and data. Legal entitlement was found on \$10.2 million of the \$55.9 million claimed.

Negotiations were conducted from December 15, 1971, through June 15, 1972. Each subclaim was negotiated separately and agreement was reached on all subclaims for which entitlement was acknowledged. The Navy approved payment of \$8.2 million on July 10, 1972, and paid Westinghouse through a contract modification on September 21, 1972.

On October 10, 1972, Westinghouse advised the Navy that it was appealing the contracting officer's final decision on this claim which denied recovery of the remaining \$45.7 million.

GENERAL DYNAMICS CORPORATION,

QUINCY SHIPBUILDING DIVISION

As indicated in your August 7, 1972, letter, General Dynamics' claims have not been settled. Presented below is the status of these claims at July 10, 1972, when a provisional payment on the claims was made.

During the period June 30, 1970, to July 27, 1971, General Dynamics submitted claims totaling \$221 million and involving 8 contracts for work on 14 ships. In support of the claims, the contractor prepared 98 volumes of data, as well as price information for each basic issue in its claim.

In March 1971, the Navy organized a 27-man review team, which included 8 Defense Contract Audit Agency auditors, to review these claims as a total package.

As of April 1972, the Navy review team had examined about 50 percent of the contractor's claim and had concluded that about \$74 million was supportable. In May 1972, the team recommended a minimum provisional contract price increase of \$40.5 million.

On June 30, 1972, the Naval Ship Systems Command Claims Review Board approved a provisional contract price increase totaling \$30 million for modifications to the eight contracts. Payment of \$29,507,200, which included the \$16.2 million referred to in your letter, was made on July 10, 1972.

We did not evaluate the data submitted by the contractor because the Navy team has not completed its review. When completed, the review will provide the basis for a negotiated settlement of the contractor's total claim. The team manager estimated that more than \$74 million, but much less than \$221 million, would be supportable.