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U. S. GENERAL ACCOUNTING OFFFICE

STAFF STUDY

DLGN-38 NUCLEAR GUIDED MISSILE FRIGATE

DEPARTMENT OF THE NAVY

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Contents

ABBREVIATIONS

CGN	Nuclear-Powered Guided Missile Cruiser
DLGN	Nuclear-Powered Guided Missile Frigate
DOD	Department of Defense
GAO	General Accounting Office
GFE	Government Furnished Equipment
NAVSHIPS	Naval Ship Systems Command
Newport News	Newport News Shipbuilding and Dry Dock Company, Newport News, Virginia
PERT	Program Evaluation Review Technique
SAR	Selected Acquisition Report
SPD	Ship Project Directive
SUPSHIP	Supervisor of Shipbuilding, Conversion and Repair, Newport News, Virginia

SUMMARY

DLGN-38 NUCLEAR GUIDED MISSILE FRIGATE

SYSTEM DESCRIPTION

The DLGN-38 class is a nuclear guided missile frigate which will operate offensively in the presence of air, surface, or subsurface threat. This class ship will operate either independently or with nuclear or conventional strike forces and provide protection to these forces and other naval forces or convoys. The currently approved DLGN-38 class consists of three ships, DLGNs-38, 39, and 40.

The launching of the first ship is scheduled for December 1973 with delivery scheduled for May 1975.

COST

The June 1972 SAR shows the total current estimate has decreased by $69.4 million since June 30, 1971, because long lead time items were reduced.

The current estimate at June 30, 1972, for the total program is $820.4 million. The estimated cost for Government-furnished equipment is $463.7 million. The current estimate for the program is to be funded by $808.4 million already appropriated less $6.1 million reprogrammed. The remaining $18.1 million for outfitting and post delivery costs will be requested in future years.

CONTRACT DATA

On December 21, 1971, the Navy awarded a fixed-price incentive contract to the Newport News Shipbuilding and Dry Dock Company, Newport News, Virginia, for the production of three ships of the DLGN-38 class. The

contract target and ceiling price for the three-ship program is $254.8 million and $300 million, respectively. The contract also contains priced options for a fourth and fifth ship with a total target price of $145.4 million and a ceiling price of $171.2 million. At June 30, 1972, there had been 14 price changes to the contract in the amount of $2.3 million.

PERFORMANCE

There have been no changes in the key performance characteristics of the DLGN-38 program since December 1969.

PROGRAM MILESTONES

The lead ship schedule date for launch slipped by 18 months to December 31, 1973, delivery has slipped by 10 months to May 31, 1975, and final acceptance has slipped by 11 months to April 30,1975, from what was shown in the planning estimate of February 1969. Since the June 30,1972 SAR launch and delivery has slipped 5 months and final acceptance has slipped 6 months.

RELATIONSHIP TO OTHER SYSTEMS

The Navy's program is to provide four DLGNs for each nuclear carrier. Existing and currently approved DLGNs provide for four ships less than the Navy's stated needs for the three nuclear carriers in use or under construction. This new frigate is designed to have two guided missile launching stations and two 5"/54 light-weight gun mounts and is designed to incorporate the most advanced weapons available. In addition the ship will have a helicopter hanger.

SELECTED ACQUISITION REPORTING

The June 1972 SAR showed that in computing program unit costs, the Project Manager excluded $55.8 million for nuclear equipment for two

additional ships that are included in total program cost. We believe this is reasonable provided the Navy exercises its option sometime in the future to buy 2 additional ships. If this option is not exercised the $55.8 million would be sunk costs and applicable to the three ship program.

PROGRESS MEASUREMENT

The Project Manager relies upon data from contractors and other naval commands to measure progress. Although the shipbuilding contract was awarded in December 1971, the Project Manager as of November 1972 had no adequate means to measure the progress of cost for the construction contract and how these costs relate to schedule and performance. The baseline appeared to be unrealistic and cost data received from the contractor were neither timely nor complete. Regarding Government furnished equipment costs, representing 57 percent of total cost of the program, the Project Manager depends on the reliability of the progress measurement systems of other naval commands for timely and accurate reporting of cost data. We have not reviewed the progress measurement systems of the other commands.

The shipbuilding contractor now submits cost data for labor and material broken down by system of a ship. It is planning to adopt a new Budget and Cost Control System which it believes will provide more timely and reliable data regarding potential cost increases. This basis of budgeting provides for breaking out cost by the section of a ship. It is more consistent with the way a ship is constructed. The contractor has actually initiated this basis as a test on the DLGN-38 contract. It maintains a duplicate set of accounts for internal purposes but does not report to the Navy on this basis.

MATTERS FOR CONSIDERATION

The question is still open regarding the Navy's plan to provide nuclear escorts for its nuclear carriers. As we have reported in our March 1972 study much uncertainty has surrounded the DLGN acquisition program and the number of ships to be acquired has fluctuated significantly. At present, according to Navy stated needs, it will have 4 fewer escorts than needed to support its carrier force. In addition to those nuclear carriers in use or under construction, the Navy has requested and received funds for procurement of long lead time items for CVAN-70, another nuclear carrier estimated by the Navy to cost about $950 million.

We believe that the Navy's plans should be stabilized before additional funds are appropriated to increase either the number of nuclear carriers or nuclear escorts.

AGENCY COMMENTS

A draft of this staff study was reviewed by Navy officials associated with the management of this program and comments were coordinated at the Headquarters level. The Navy's comments are incorporated as appropriate. As far as we know, there are no residual differences in fact.

CHAPTER 1

INTRODUCTION

This is the third study on the Nuclear-Powered Guided Missile Frigate, DLGN-38 program. In this follow-up review, we are reporting on the current status of the program and matters requiring management attention. We are also reporting on whether management's system to measure progress is actually providing current, accurate information that discloses just where the program stands in relation to where it was expected to stand at a given point in time in terms of cost, schedule, and technical performance.

SYSTEM DESCRIPTION

The DLGN-38 class is a nuclear-powered guided missile frigate which will operate offensively in the presence of air, surface, or sub-surface threat. This class ship will operate independently or with nuclear or conventional strike forces and provide protection to these forces and other naval forces or convoys.

This new frigate is designed to have two guided missile launching stations and two 5"/54 light-weight gun mounts and is designed to incorporate the most advanced weapons available. In addition, the ship will have a helicopter hanger.

The requirement for DLGNs is closely related to the Navy's program to acquire nuclear aircraft carriers. The Navy plans to have four DLGNs for each nuclear carrier. According to the Navy, a Nuclear-Powered Guided Missile Cruiser (CGN) may be substituted for a DLGN. Currently, there is one nuclear carrier in operation and two under construction.

Advance procurement funds for a fourth carrier were provided in the fiscal year 1973 budget. The Navy also has two DLGNs and one CGN in operation and five DLGNs planned for construction. Thus, after delivery of the two carriers and five frigates, the Navy will have in operation eight frigates for three carriers or four frigates less than planned. This shortfall will be increased to eight if the Congress authorizes construction of a fourth carrier.

STATUS OF ACQUISITION

In June 1970, the Navy awarded a cost contract to Newport News Shipbuilding and Dry Dock Company, Newport News, Virginia, for preliminary work on the DLGN-38 class. On December 21, 1971, the contract was converted to a fixed-price-incentive contract for construction of three ships and an option for two more. The keel for the DLGN-38 was laid on August 19, 1972, with delivery planned for May 1975. The contract target and ceiling price for the three-ship program is $254.8 million and $300 million, respectively. For the fourth-and fifth-ship option, the total target price is $145.4 million and the ceiling price is $171.2 million.

REDUCTION IN QUANTITY

The nuclear frigate program has experienced some pronounced fluctuations in the quantities of ships the Navy planned to buy. The initial planning estimate provided for four ships and was subsequently increased to 23 ships and then reduced to six ships in March 1971. This was later reduced to three ships in June 1971. The reasons given for the reduction in quantities were (1) the substantial overall cost of the DLGNs, (2) the other high priority needs of DOD, and (3) the limitations on funds available for defense. Another reason given for quantity reduction was that making

changes in the characteristics of the DLGNs to accommodate new weapon systems at a later date was very costly.

SCOPE

Information on this program was obtained by reviewing plans, reports, correspondence and other records and by interviewing officials at the contractor's plant, the Project Manager's Office, intermediate and higher commands of the Department of the Navy. We evaluated management policies and the procedures and controls related to the decisionmaking process, but we did not make detailed analyses or audits of the basic data supporting program documents. We made no attempt to: (1) assess the military threat or the technology, (2) develop technological approaches, or (3) involve ourselves in decisions while they were being made.

CHAPTER 2

WEAPON SYSTEM STATUS

The June 30, 1971, SAR for the DLGN-38 program contained cost, schedule and performance experience and status of the program as of that date. Our review was directed to changes in the program since that date and current status of the program as reported by the Navy in the June 30, 1972 SAR.

SYSTEM COST EXPERIENCE

The project manager's current estimates of program acquisition costs at June 30, 1972, was $820.4 million, a decrease of $69.4 million under the $889.8 million reported as of June 30, 1971.

The total current estimate changed because long lead time items were reduced by $69.6 million and design costs increased $.2 million.

We looked at the September 30, 1972 SAR and there were no significant changes from what was reported in June 1972.

APPROPRIATED AND OBLIGATED FUNDS

At June 30, 1972, the current estimate was $820.4 million. This amount is to be funded by $808.4 million already appropriated less $6.1 million reprogrammed. The remaining $18.1 million for outfitting and post delivery costs will be requested in future years. As of June 1972, $574.0 million has been obligated.

SYSTEM SCHEDULE EXPERIENCE

With the award of the construction contract, the lead ship schedule data for launch slipped by 5 months to December 31, 1973, delivery also slipped by 5 months to May 31, 1975, and final acceptance slipped by 6 months to April 30, 1975, from what was shown on the June 30, 1971 SAR. Total slippage since the planning estimate is now:

Start of production	13 months
Launch	18 months
Delivery	10 months
Final acceptance	11 months

SYSTEM PERFORMANCE EXPERIENCE

There was no change in DLGN-38 performance characteristics between the June 1971 and the June 1972 SAR's

SELECTED ACQUISITION REPORTING

The June 1972 SAR showed that in computing program unit costs, the Project Manager excluded $55.8 million for nuclear equipment for two additional ships that are included in total program cost. As also stated in our March 1972 staff study, we believe this is reasonable, provided the Navy exercisesits option sometime in the future to buy 2 additional ships. If this option is not exercised the $55.8 million would be sunk costs and applicable to the three ship program.

CHAPTER 3

COST ESTIMATING AND PROGRESS MEASUREMENT

An effective progress measurement system requires that realistic baselines be established and that cost, schedule and performance variances be communicated timely to the Project Manager.

The shipbuilding contract was awarded in December 1971, but as of November 1972, the Project Manager did not have an adequate means to measure the progress of construction. Also, the contract baseline appeared to be unrealistic and cost data received from Newport News were neither timely nor complete. Government furnished equipment costs represent $463.7 million or 57 percent of the total program cost. The Project Manager must depend on the progress measurement system of the naval commands for timely and accurate reporting. We did not review the progress measurement systems of the other commands.

ESTABLISHMENT OF BASELINE

Cost Estimate

The development estimate for the DLGN-38 program was arrived at by negotiations between the Naval Ship Systems Command (NAVSHIPS) and Newport News, agreements between the Project Manager and other naval commands, and the Project Manager's estimated additional costs. It is considered by the Navy as the most reliable baseline for measuring progress. The estimate was made in the following categories by ship.

		DLGN-38	DLGN-39	DLGN-40	TOTALS
		----------	Millions	----------	
1.	Plan costs	$ 18.8	$ 5.4	$ 1.5	$ 25.7
2.	Basic construction	85.4	79.0	73.9	238.3
3.	Change orders	8.4	7.5	8.0	23.9
4.	Electronics	27.8	27.8	29.3	84.9
5.	Ship non-elex	46.8	50.0	50.0	146.8
6.	Other	8.8	14.8	17.1	40.7
7.	Ordnance	43.3	37.7	36.4	117.4
8.	Future characteristics changes	.5	.5	3.0	4.0
9.	Escalation	8.4	10.2	13.3	31.9
10.	Target to ceiling	1.8	2.1	7.8	11.7
	Totals	$250.0	$235.0	$240.3	$725.3 [a]

[a] The SAR includes additional costs of $21.2 million for development, $18.1 million for outfitting and delivery, and $55.8 million for advance procurement for the fourth and fifth ship bringing the total to $820.4 million. There are some differences in the individual lines.

The method used by the Navy to make the estimate for the various categories is discussed in the following sections.

Basic construction

The estimate of $238.3 million for basic construction costs plus $16.5 million for plan costs equals the target price of the construction contract with Newport News. The Navy did not make an independent estimate of these costs. In July 1971, Newport News proposed a target cost of

$273.7 million and a target price of $309.3 million. The proposal was supported by cost or pricing data as required by Armed Services Procurement Regulation 3-807.3. The Navy then made a technical review of the data and the Defense Contract Audit Agency performed a financial review. Using the reports of these reviews, a Navy negotiation position of $219.3 million target cost and $245.7 million target price was set. Through negotiation the target cost was established as $226.0 million and the target price as $254.8 million.

Change orders

The change orders estimate is based on previous shipbuilding experience and the judgment of Project Manager officials. Generally, for DLGN size ships, the Navy allows for changes to the lead ship at 12 percent of construction costs and for follow ships at 8 percent of construction costs. For the DLGN-38 class, project officials disagreed with the normal procedure. They believed that 12 percent for change orders for the lead ship was too much and that 8 percent for follow-on ships was too small. As a result, project officials stated that the amount was established on the basis of their belief, rather than through a mathematical process.

Government furnished equipment

Several line items, electronics, ship's non-elex, other, and ordnance, in the cost breakdown represent equipment to be furnished the shipbuilder by other naval commands. The quantity of each subsystem or component is established by the ship characteristics. The cost is estimated by the

command and submitted to the Project Manager who may then add a reserve. For example, the Naval Ordnance Systems Command estimated ordnance costs for the first ship as $41.4 million. The Project Manager had additional information available and increased the estimate to $43.3 million.

Future characteristic changes

Future characteristic changes is a reserve for such changes as estimated by the Chief of Naval Operations.

Escalation

This estimate was computed in accordance with the escalation provisions of the contract and projected using Bureau of Labor Statistics indexes and the negotiated mix for labor and material. The projections were made over the life of the contract based on target cost.

Target to ceiling

The Navy's current estimate for three DLGNs at the time of the shipyard contract was $725.3 million. After the Project Manager had apportioned his estimate considering known cost categories, the total was $713.6 million. He did not change the total estimate; but classified the difference as Target to Ceiling, thus providing for contingencies.

Schedule estimate

The DLGN-38 delivery date was proposed by Newport News and accepted by the Navy. The Navy, in its request for proposal from Newport News requested

a delivery date of February 28, 1975. A schedule of the availability dates of Government furnished equipment was included in the request for proposal. (UNCLASSIFIED)

The Newport News proposed delivery date of May 31, 1975, was established for the lead ship. With delivery established, Newport News then established all major construction events leading up to delivery. Major events for the other two ships were determined in the same manner.

Performance estimate

The performance requirements of the DLGN-38 class were determined by the Chief of Naval Operations. The Project Manager then established specifications to meet the desired performance.

During baseline development, exploratory studies of the overall ship system were made. The Navy considered various alternatives and configurations of the ship and its subsystems, including various arrangements and hull forms. Approximately 15 mission-sensitive performance studies were made. In exploring the effect of performance parameters on ship size and cost, the Naval Ship Engineering Center made over 50 trade-off studies using the destroyer computer model. These studies included trade-up and trade-down alternatives. The cost-effectiveness and risks involved in each variable were examined. The characteristics were then selected on total ship effectiveness.

PROGRESS MEASUREMENT

The Navy has 10 principal management systems to control the acquisition of the DLGN-38 class ships. The management systems are

for controlling cost, schedule and performance over two broad areas: (1) shipbuilding contract and (2) Government furnished equipment. Shipbuilding contract costs represent 38 percent of total program costs and GFE represents 57 percent.

We believe the value of these systems is dependent upon the reliability, timeliness and completeness of the data reported and the use of the reports by the Project Manager.

Shipbuilding contract

The two most important systems for measuring shipbuilding contract performance are the Integrated Management Control System and the Quarterly Production Progress Conferences.

As a part of the Integrated Management Control System, the shipbuilder is contractually required to establish and maintain a system to coordinate production planning, scheduling, budgeting and cost collecting as necessary to ensure good cost control. The contract does not specify a format; but does require data in the areas of production, scheduling and budgeting. This system is also designed to promptly identify potential cost growth and its cause to permit timely correction. The shipbuilder submits a Quarterly Cost Report as part of the system. This report is to relate percent of completion to costs incurred, provide for an estimate of cost to complete, and provide the variance between current total estimated cost and budgeted cost with associated variance explanation.

The shipbuilding contractor is also required to prepare Program Evaluation Review Technique (PERT) time networks. The PERT networks present a detailed construction schedule encompassing total ship development from contract award through ship delivery. If problems that effect the schedules and performance arise, they are reported to the Navy by "Problem Identification Reports" and discussed at Quarterly Production Progress Conferences. Quarterly Production Progress Conferences are held at the contractor's plant with project officials from NAVSHIPS, SUPSHIP and the contractor. At these meetings, the contractor has an opportunity to discuss problem areas in detail with the Project Manager and his staff. The conference affords the Project Manager an opportunity to obtain firsthand knowledge on how the contractor is progressing as compared to what schedule information and/or reports indicate.

To be useful a cost report should be timely and should contain budget and actual cost data and variances in sufficient detail for the Project Manager to recognize potential problem areas. Thus, a cost budget should be prepared in a manner which would permit progress measurement of the schedule and level of work. Cost should be collected in the same format as budgets. We examined the procedures followed by Newport News in measuring progress for the DLGN-38 contract.

Cost

Newport News has a budget and cost control procedure which provides for preparing the budget based on a system of a ship and collecting and reporting cost on the same basis.

The initial budget, representing the target cost for the DLGN-38 class ship, was prepared at the time the proposal was prepared. Considering the specifications, historical data available, input from various levels of the shipyard and judgments, the initial budget was prepared in the normal categories--material, labor and overhead.

Both the material and labor budget were broken out to the four digit level of the cost class of the Newport News Work Breakdown Structure. This system basis of budgeting provides for the breakdown of a ship into systems (three digit level) and a further breakdown into subsystem (four digit level). The DLGN-38 has about 180 systems and about 525 subsystems. In addition, the labor budget for each system is broken out by department (trade center). Thus, the total labor budget by system equals the total labor budget by department. Overhead was applied to labor dollars. Details supporting this estimate were submitted with the proposal.

In line with Newport News practice, the Estimating Supervisor, Cost Engineering, Budget Section, is presented with the percentage of reduction in labor, material, and overhead. He then reduces each cost class for each department by this percentage plus a percentage for a reserve. The revised budget is then distributed to department heads for comment. Where the department head feels the budget is too low, he meets with the Estimating Supervisor to negotiate. When they cannot agree, the Vice President for Contracts decides upon the final amount. The DLGN-38 budget for each department was generally revised in accordance with these procedures. We were told by Newport News that the department

heads were generally not satisfied with the contract budget even after changes were made and the reserve was added back to the budget.

This budget shows a cost increase above target for the first ship of $10.8 million. Although a detailed budget was not prepared for the other ships, Newport News has estimated an increase above target of $5.6 million for the other ships, making the total contract increase above target $16.4 million.

Under Newport News procedures, changes may be made to cost classes and departments by the Estimating Supervisor. Such changes are made as more data becomes available at the subsystem and system level. Where the system level budget is increased the Estimating Supervisor may transfer costs from the reserve. He may not increase the total budget without authorization from the Vice President for Contracts.

The total budget may also be changed for change orders. The change is based on the estimated cost. An adjustment will be made after the change is negotiated only for large change orders.

Costs for labor and material are collected at the four digit level. As work progresses on a ship, it is assigned by work order and work ticket. Actual hours are collected at those levels and converted to the four digit level.

The Quarterly Cost Report is submitted in four parts; one report for each ship and one for the total contract. It contains columns for both material (in dollars) and labor (in man-hours). Each is shown by the three digit level with a summary total at a higher level under the following columns.

Material

1. Cumulative to date
2. Unpaid commitments
3. Budget
4. Projected final cost
5. Variance

Labor

1. Cumulative to date
2. Budget
3. Projected final cost
4. Variance

The first Quarterly Cost Report was submitted as of May 26, 1972, and received by the Project Manager about July 5, 1972. On that report, only the first three material columns and the first labor columns were completed.

The second report as of August 25, 1972, was received November 8, 1972, and had all columns completed for the first ship. For the other ships the labor section included a cumulative to date figure but not a figure for budget, projected final cost, or variance. The material columns, however, were complete. For the first ship, the projected final cost columns were generally higher than the budget columns, thus an increase above target was being shown with submission of the second Quarterly Cost Report. The variance was shown by percentage (budget versus projected final) at the two digit level.

We discussed this report with contractor personnel and compared the budget with a preliminary budget which reflected estimates by department heads. It appears that the budget represents a figure adjusted to meet the contract target cost and the projected final cost column represents the estimated cost as seen by the department heads.

The cost columns on these two reports do not tie into contractor's records because the costs are "deescalated." Using indexes, they adjust all actual costs to the "cost" as of June 1970, the base month, as shown in the contract. They said the budget figures were as of the June 1970 date and this procedure provides for a true comparison.

Schedule and performance

At the time of our review, the contractor had submitted 26 Problem Identification Reports and two Quarterly Production Progress Conferences had been held. The records of the conferences show that the problems were considered and action initiated when necessary. These reports and records reflected no significant schedule or performance problems.

Progress payments

The SUPSHIP at Newport News computes progress of the contract for progress payments. It uses a system unrelated to the budget system of the contractor. This report reflects percentage of completion of the contract and each ship in total, but not by system. The percentage of completion is reported to NAVSHIPS on the Vessels Monthly Report for New Construction and Conversion. The percentage of completion does not agree with the percentage shown on the Quarterly Cost Report.

Revised budget and cost control system

Newport News is planning to adopt a new Budget and Cost Control System which it believes will provide more timely and reliable data regarding probable cost growth. In lieu of the system basis, it will adopt a space control basis of budgeting. The ship will be broken out

by section, area and unit, and costs will be related to schedule. This is more consistent with the way a ship is constructed. The budget will be prepared and costs collected at these levels for most of the ship. Some labor and material, for items which are ship oriented, will still be controlled by ship system.

Newport News has adopted this basis for the DLGN-38 contract and maintains a budget and collects cost under this basis. This duplicate set of accounts is for internal purposes as a test and is not reported to the Navy.

Project Manager's use of reports and meetings

Project Manager personnel said the first Quarterly Cost Report was of no use to them because data were incomplete. The second report is better for the DLGN-38 but is still incomplete for the total program. They feel the method of deescalating the report will permit a better basis for comparison. They do not use the Progress Payment Report to measure progress.

The Project Manager relies on PERT, Problem Identification Reports and attendance at quarterly conferences to keep current on schedule and performance problems. In addition, SUPSHIP personnel at the shipyard are available to readily identify problems as they arise.

Government furnished equipment

Since the cost of GFE represents 57 percent of the cost of the ship, progress measurement is of extreme importance.

The Project Manager works with the other commands in establishing baselines and then relies on them for reports of cost, schedule, and performance.

Control is exercised through Ship Project Directives (SPD s) which require that systems commands submit three basic reports;

Monthly SPD Financial Report

Monthly GFE Status Variance Report

Quarterly GFE Status Report

The monthly reports show current status of financing and procurement. The Quarterly Report shows the current schedule and performance data. Changes from the previous report must be approved by the Project Manager before inclusion in the Quarterly Report.

Changes from initial agreements are reported to the Project Manager on an exception basis. If the procuring command has a problem in schedule or performance, the Project Manager is notified. If the problem cannot be solved by the Project Manager and the procuring activity, it is referred to NAVSHIPS. An appropriate change to the SPD will be issued after a solution has been reached.

According to the Project Manager, there has not been an increase in GFE costs or a major slippage because of problems related to schedule and performance since the Development Estimate. They have no definite plans to settle these problems. They said they will solve them as problems arise.

Conclusion

The Project Manager must rely upon the inputs of the contractor and other commands to provide progress measurement. The Project Manager depends on the shipbuilder to complete the ship within planned cost, schedule and performance. The shipbuilder depends upon other systems commands to supply GFE which meets performance requirements on schedule. The other commands must depend on its contractors to supply GFE in terms of planned cost, schedule and performance. Where problems arise on GFE, the Project Manager should receive data timely so that he might evaluate the effect on the total program and take necessary action.

For cost, the Project Manager has only recently received detailed data from the contractor, and that was incomplete. On November 8, 1972, the Project Manager received a report from the contractor effective August 25, 1972, showing budget, actual cost and variance at a level of cost breakdown higher than its detail records reflect. This report was complete for only one of the three ships and showed an increase above target. Information at the contractor's plant indicates that the original baseline for the target cost was unrealistic and thus cannot be used as a good basis for measurement. Further, the actual cost reported was "deescalated" and thus did not reflect costs shown in the contractor's records.

Cost reports for GFE are in total by item. Only when the other naval command recognizes an overrun will it report this to the Project Manager. We have not reviewed progress measurement systems between the other commands and their contractors, thus we do not know the extent of their ability to submit timely reports of overruns to the Project Manager.