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THESIS

THE IMPACT OF OMB CIRCULAR A-76 ON THE COST, OPERATIONAL READINESS AND MAINTENANCE OF SPECIAL MISSION SHIPS IN THE MSC NUCLEUS FLEET

by

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ABSTRACT

This thesis examines the effects of the procedures mandated by Office of Management and Budget (OMB) Circular A-76 on the cost, operation, and maintenance of MSC Nucleus Fleet, Special Mission ships. It attempts to answer certain questions about the policy that governs commercial activities including performance work statement control for service functions needed by the government. The findings suggest that cost savings were realized as a result of large scale manning reduction, and that MSC is making significant progress towards full implementation of A-76 procedures.

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I. INTRODUCTION

Office of Management and Budget (OMB) Circular A-76 is the policy for the government's privatization program. It is the general policy of the government to rely on commercial sources, whenever appropriate, to supply products and services needed. This policy has resulted in procedures for determining whether commercial type activities should be done in-house, using government personnel, or performed under contract with commercial sources. The procedures of A-76 are first to compel an activity to critically evaluate current operating procedures and manning level and then to solicit bids from the private sector for performing these functions. The purpose of Circular A-76 is to provide the most efficient operation at the least cost to government.

The Navy's Military Sealift Command (MSC) has a force inventory of 126 ships, of which 73 belong to the Nucleus Fleet. The Nucleus Fleet is made up of U. S. Navy Ships (USNS) which are owned and operated by MSC. Since the primary function of these ships is special mission, they are classified as activity-type ships instead of fleet support.

In January 1984, MSC initiated cost comparison studies on activity-type ships in accordance with the OMB and Department of the Navy directives.

A. THESIS SCOPE

The objective of this thesis is to attempt to answer the following questions:

- What is the effect of A-76 procedures on the cost of MSC Nucleus Fleet operation?
- Will A-76 procedures affect readiness and maintenance quality of MSC Nucleus Fleet?
- What problems have been encountered with the application of A-76 to the MSC vessels?

This thesis is patterned after A Pilot Study of the Impact of OMB Circular A-76 on Motor Vehicle Maintenance Cost and Quality in the U.S. Air Force, published by the Rand Corporation in February 1985 [Ref. 1]. The findings of this thesis parallel that of the Air Force study.

B. METHODOLOGY

Research methods used to address the objective questions were personal interviews and a review and study of pertinent literature and publications. Data on cost savings, manning reduction, ship operation, readiness, and contract administration was provided by MSC Headquarters in Washington, DC, and MSC Atlantic Area Command in Bayonne, NJ. Information concerning OMB Circular A-76 was provided by the Office of Federal Procurement Policy (OFPP), Washington, DC.

C. THESIS ORGANIZATION

The thesis is organized into five chapters. Chapter I is a brief introduction to the thesis topic. It discusses the objective of the thesis, the methodology used in its

preparation, and the thesis organization. Chapter II presents a brief history of MSC, together with a discussion on its function, mission, and responsibilities. It also contains the organization and chain-of-command of MSC within tne Navy, as well as the operation and support provided by the Nucleus Fleet. Chapter III outlines background information on OMB Circular A-76 and presents related requirements such as the Statement of Work preparation and Cost Comparison Study requirements. Chapter IV examines the effects of OMB Circular A-76 on the operation of MSC vessels. Chapter V is a summary of issues with formulated conclusions. It closes with recommended areas for further research.

II. MILITARY SEALIFT COMMAND (MSC)

Throughout World War II, four organizations controlled cargo delivery--the Army Transport Service, Naval Transportation Service, the War Shipping Administration and the Fleet Service Forces. [Ref. 2] During this time the Army and Navy operated independent shipping services. After World War II it was decided that there should be a single manager for all Department of Defense ocean transportation. This would eliminate duplication in procurement, supply, and transportation. On 2 AUG 1949 the Secretary of Defense issued a directive making the Secretary of the Navy the single manager for sealift and directing him to establish an operating agency within the Navy. [Ref. 2] The Military Sea Transportation Service was established on 1 OCT 1949. The organization was renamed Military Sealift Command in August 1970.

A. CHAIN OF COMMAND

The Military Sealift Command (MSC) is the Navy transportation operating agency for DOD Sealift and has the status of a Navy fleet. [Ref. 3:p. 12] A flow chart of the present DOD transportation organization is shown in Figure 1. MSC headquarters is in Washington, DC at the Navy Yard. The Commander, Military Sealift Command (COMSC), currently

Vice Admiral Walter T. Piotti, Jr., reports directly to the Chief of Naval Operations (CNO) as a major, second echelon commander.

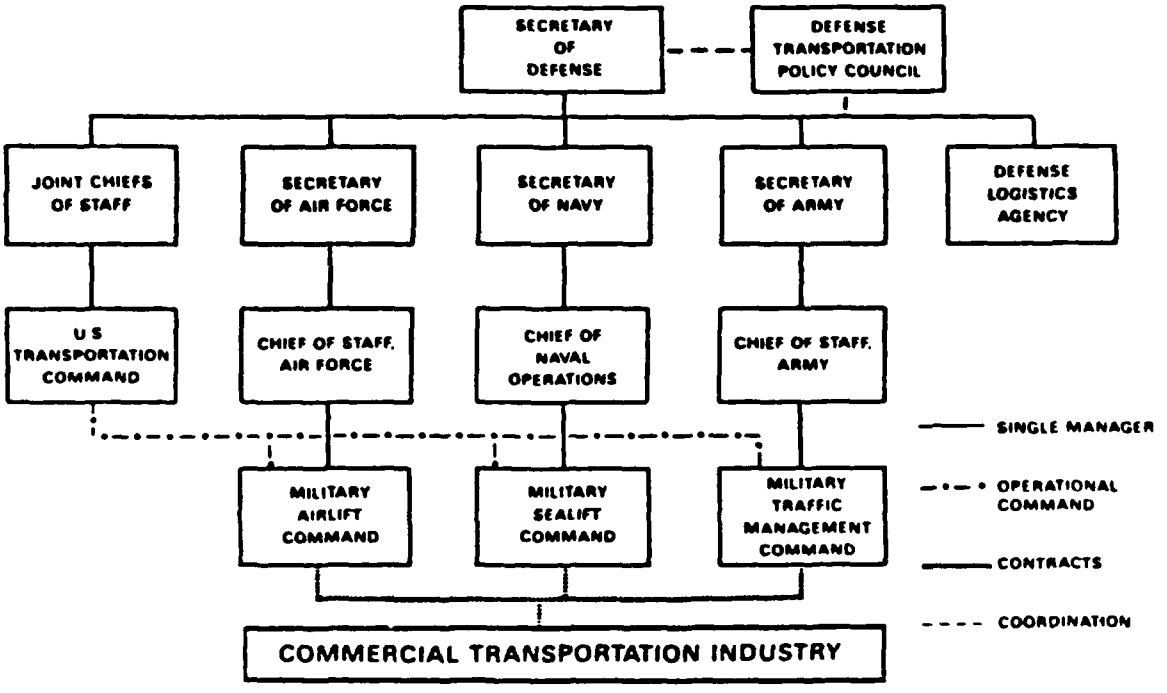


Figure 1 Department of Defense Transportation Organization [Source: Defense Transportation Journal, FEB 88]

B. AREA COMMANDS

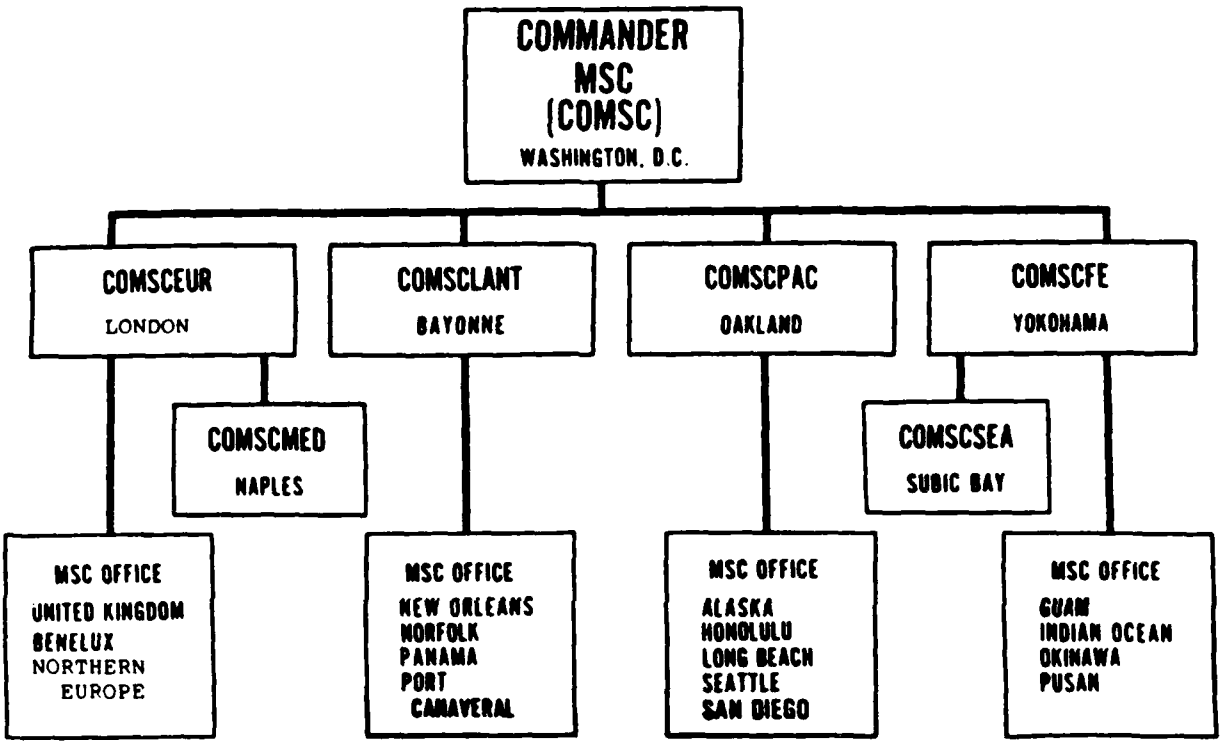
MSC has area commands for the Atlantic, Pacific, European, and Far East headquartered in Bayonne, NJ; Oakland, CA; London, England; and Yokohama, Japan; respectively. These area commands all report to COMSC, Washington, DC. Two smaller sub-area commands are located in Naples, Italy and Subic Bay, Republic of the Philippines, and report to their respective area commanders. Offices and small units are located wherever sealift traffic requires. Figure 2 identifies MSC offices and commanders.

C. MISSION AND RESPONSIBILITY

1. Mission

The primary mission of MSC is to provide sealift for strategic mobility in support of national security objectives. This mission, known as Strategic Sealift, demands the capability to deploy and sustain military forces wherever and whenever needed, as rapidly and for as long as operational requirements dictate. Strategic Sealift has been formally recognized as one of the Navy's three major functions, along with sea control and power projection. [Ref. 4:p. 2]

MSC uses two principal sources to accomplish its mission: U. S. Government owned ships and ships of the U. S.--flag merchant marine. Most DOD cargo is carried by ships of the U. S.--flag merchant marines either as common carriers or under charter to MSC. The government-owned



Source: MSC Pacific, Oakland, CA

Figure 2 Military Sealift Command organization.

ships may be used to move DOD cargo in peacetime (and are increasingly being used solely for military exercises) or kept in reserve status in the National Defense Reserve Fleet and the Ready Reserve Force. In the event of war, these government-owned ships held in reserve would be activated to meet Strategic Sealift requirements.

2. Responsibility

MSC responsibilities occur in three functional areas: Strategic Sealift Force, Naval Fleet Auxiliary Force and Special Mission Support Force.

a. The Strategic Sealift Force includes afloat prepositioning ships and troop transports in addition to the responsibility of sea movement of material and petroleum, oil and lubricants (POL) in order to sustain military forces wherever needed.

b. The Naval Fleet Auxiliary Force is responsible for direct support of the fleet units at sea worldwide. This allows Navy combatant ships to remain on station for long periods.

c. The Special Mission Support Ships meet the needs of DOD and other sponsors for ocean-going ship support. Special mission requirement efforts such as research, cable laying and repair, medical assistance, and missile tracking are met by the ships in this category.

D. NUCLEUS FLEET

There are currently 73 ships in the MSC Nucleus Fleet that are operated with approximately 8,550 civil service employees, military personnel and contract mariners. The fleet is divided into ship types shown in Table I. In support of MSC's mission, the ships in the Nucleus Fleet are utilized within function areas rather than ship type.

1. Operations of the Nucleus Fleet by Ship Type

a. Major Auxiliaries, such as T-AE, T-AF and T-AO, operate as shuttle ships, frequently steaming in formation, replenishing combatants and operating as point-to-point ships.

b. Minor Auxiliaries, such as T-ATF and T-ARC, usually operate independently, but may operate with the fleet on occasion. The fleet tugs operate with the fleet as required for towing, rescue or salvage. The cable ships' operations are similar to the operations of the scientific support ships.

c. Special Mission Ships/Scientific Support normally operate independently, but may sometimes be under operational control of a fleet commander.

d. Transportation Ships, such as FSS, operate similar to commercial point-to-point cargo ships. [Ref. 5]

2. Nucleus Ships Used to Support MSC Functions

MSC usually relies on U. S. flag commercial shipping lines to transport military cargo, but since there are

TABLE I

MILITARY SEALIFT COMMAND NUCLEUS FLEET

		SHIP TYPE	NUMBER
NAVAL FLEET AUXILIARIES FORCE (39)		- T-AGOS SURVEILLANCE	10
		- T-AE AMMUNITION RESUPPLY	1
		- T-AF FLEET STORES	1
		- T-AFS COMBAT STORES	3
		- T-AK FMB FLEET BALLISTIC MISSILE SUPPLY	2
		- T-AO FLEET OILERS	15
		- ATF FLEET TUGS	7
SPECIAL MISSIONS (22)		- T-ARC T-AK CABLE	4
		- T-AGM, T-AGDS RANGE INSTRUMENT	4
		- T-AGOR OCEAN RESEARCH	4
		- T-AGS OCEAN SURVEYING	8
		- T-AG, T-AGOR UNDERSEA SURVEILLANCE	2
STRATEGIC SEALIFT (10)		- FSS FAST SEALIFT SHIPS (TRANSPORTATION)	8
		- T-AH HOSPITAL SHIP	2
	*	- T-AVB AVIATION LOGISTIC	2
		TOTAL	73

*Part of the Nucleus fleet but not identified with a specified mission area.

Source: COMSC Force Inventory 4 APR 1988.

cargos that commercial carriers cannot lift, MSC must maintain its own controlled fleet to handle such cargo.

a. In support of Strategic Sealift, MSC uses Maritime Prepositioning Ships, Ready Reserve Force ships, Fast Sealift Ships, common-use dry cargo ships, point-to-point tankers, and passenger ships (when assigned).

b. The Naval Fleet Auxiliary Force (NFAF) is part of the Navy's Total Combat Support Force. This auxiliary fleet includes oilers, fleet tugs, fleet ballistic missile resupply ships, stores ships, ammunition ships and ocean surveillance ships. The support which NFAF ships provide includes underway replenishment, towing, salvage and special services, and point-to-point transfer of fleet ballistic missiles and related cargo.

c. Cable laying and repair ships, missile range instrumentation ships, oceanographic surveying ships and hospital ships are assigned to the Special Mission Support Division. These ships' services include oceanographic research, missile tracking, communication, medical assistance and other unusual missions.

This study will focus on the impact of A-76 as it is applied to ships in the Special Mission Support Division of the Nucleus fleet.

III. OMB CIRCULAR A-76

A. HISTORICAL BACKGROUND

1. Conception of Commercial Activities Program

The first attempt to formulate a policy of reliance on the private sector for the performance of commercial activities was published in a report of the Special Committee of the House of Representatives in 1933. [Ref. 6] The committee recommended termination of many of the in-house functions that had begun during World War I. World War II brought about a brief interruption in the move toward privatization. However, shortly thereafter, congressional interest resurfaced. [Ref. 7:p. 2] Four more reports from other House and Senate committees failed to result in the enactment of any legislation or executive decision towards commercial activities.

The first Department of Defense (DOD) efforts to create such a policy took place in 1952. This departmental effort was very limited in nature, and had little impact on DOD operations. [Ref. 8]

It was not until 1954, during the Eisenhower Administration, that the executive branch became a serious factor in attempts to shift activities from government performance to performance by commercial enterprises. In

his first budget message during the same year, President Eisenhower stated that,

> This budget marks the beginning of a movement to shift...to private enterprise Federal activities that can be more appropriately and more efficiently carried on in that way. [Ref. 9]

Subsequently in 1955, the Bureau of Budget (BOB) Bulletin Number 55-4 was issued. The bulletin echoed the President's basic policy that commercial activities and services would be procured from the private sector unless it could be clearly demonstrated that it would not be in the public interest to do so. [Ref. 10]

2. Development of Circular A-76

The first Bureau of Budget Circular A-76 was issued in 1966 [Ref. 11:p. 2]. The A-76 circular supported the basic policy but differed from Bulletin No. 55-4 in that it specifically listed five basic exceptions when commercial or industrial-type functions were eligible to be performed in-house [Ref. 11:p. 7].

- Procurement from commercial sources would disrupt or delay a DOD program.
- In-house performance is necessary to maintain military training or readiness.
- A satisfactory commercial source is not available.
- Products or services are available from other federal agencies.
- Contract performance is more costly.

The circular was revised in 1967 as Office of Management and Budget (OMB) Circular A-76. This revision

attempted to address criticisms that A-76 guidelines were too vague and unstructured. It introduced numerous changes to clarify and expand upon the methods by which in-house and contracting out cost comparisons were to be conducted. It also required that a cost analysis be conducted prior to initiating a new start or continuing a government function, unless in-house performance was clearly justified by one of the other exception criteria. The heavy emphasis on cost analysis was a major shift in contracting out policies. [Ref. 11:p. 7]

3. Creation of the Office of Federal Procurement Policy

The decade of the 1970's continued to reflect concern that A-76 guidelines and procedures were too vague and that the implementation of these guidelines was not uniform across all agencies. [Ref. 12] A Commission on Government Procurement was established to review the government's procurement system. The commission recommended that an objective, systematic system, uniformly applied was needed to insure credibility and fairness in deciding who would perform commercial activities. The Congress held hearings in 1973 and 1974 to review the recommendations of the Commission. As a result of the hearings, Public Law 93-400 was enacted in 1974. The statute created the Office of Federal Procurement Policy (OFPP) within OMB, with one of its major objectives being the improvement of government

wide implementation of the A-76 commercial activities program. [Ref. 13]

4. Revision of Circular A-76

Additional policy guidance aimed at improving compliance was issued from 1974 through 1977, but no substantial changes occurred. OFPP, after a comprehensive study of the entire policy, revised OMB Circular A-76 once again in 1979. The 1979 revision insured that a systematic approach was used. It required the development of performance work statements (also know as statements of work), management study reviews and detailed cost comparisons. A Cost Comparison Handbook (CCH), also published in 1979, provided detailed instructions for use by all agencies in conducting cost comparison studies of in-house versus contractor costs. [Ref. 11]

The current policy guidelines regarding the performance of commercial activities are contained in the 4 August 1983 version of A-76 and its most recent update, Transmittal Memorandum No. 1, dated 12 August 1985. The cost comparison methodology was changed from the complex full cost method outlined in the CCH, to a simpler incremental approach. Many of the complex cost computations that were often contested were either eliminated or replaced by standard cost factors. [Ref. 14:pp. 9-10]

B. IMPLEMENTATION OF A-76

OMB Circular A-76 requires all executive agencies, military and civilian, to develop an inventory of their activities, making a determination as to those that should remain government functions and those that could be performed by commercial contractors. DOD's list of these activities is maintained by the Deputy Assistant Secretary of Defense (Installations) Installation Services, Alexandria, VA. An annual update of the agencies' inventory is a requirement of the Circular.

Circular A-76 specifies that profit-seeking firms are not appropriate sources of services that are "inherently governmental in nature" [Ref. 15] and are therefore excluded from this policy. Inherently governmental services include judicial functions, law enforcement, conduct of foreign policy, national defense, intelligence and counter-intelligence operations, tax collection, regulation of industry and commerce, and financial administration of government.

Some other categories and situations that are excluded from the provisions of A-76 are: [Ref. 15]

- Major system acquisitions governed by OMB Circular A-109.
- Contractor Support Services which include consulting services, studies and analysis, and professional and management support services.
- When the activity is performed outside the United States, its territories, or possessions.

- When products and services are obtained from other federal agencies which are authorized or required by law to furnish them.
- In times of declared war or military mobilization.

Circular A-76 procedures are also waived for DOD procurement of research, development, tests, or evaluation. [Ref. 16]

C. APPLICATION OF A-76

A-76 application in military agencies follows a four step procedure: First, activities are identified as appropriate for performance by commercial sources. Second, each site where the activity is performed is examined to identify any special circumstances that would make commercial sources inappropriate there. Third, a cost study is made at each site where commercial performance of the task is appropriate. Fourth, the task is actually performed by a contractor or in-house staff under the rules specified in Circular A-76. [Ref. 1]

D. CIRCULAR A-76 PROCEDURES

1. Cost Study

The cost study also known as a management study, determines if it is more economical to perform the operation in-house or to let a contract for its performance by a profit-seeking firm. This study is the most complex phase of the entire A-76 process. It describes procedures for achieving the most efficient and effective in-house

performance of a commercial activity and consists of four stages: [Ref. 1]

- a detailed preparation of the performance work statement/statement of work to be performed,
- a cost estimation of the work to be performed using government employees,
- solicitation of bids, usually fixed-price, from commercial contractors for performance of the work, and,
- selection of the lowest bid submitted, after cost comparison, by the organization deemed competent to perform the work.

2. Development of the Statement of Work

The preparation of the Statement of Work (SOW) is one of the most critical features of contracting under the implementation of Circular A-76. Its design will directly impact the nature of the solicitations, the cost comparison process and subsequent performance either by in-house personnel or by contractor employees. The SOW should establish the government's actual minimum requirements for performing the service. These standards are the same regardless of whether the work is performed by the government or by a contractor.

The SOW constitutes the specifications for the contract. It should be sufficiently comprehensive, expressing all requirements in a clear, concise and unambiguous manner. It should describe all duties, tasks, responsibilities, and frequencies of performance. The SOW should describe exactly what work is to be done, without

prescribing how it must be done, and the standards to which the work must conform. [Ref. 17] Compliance is judged by random sampling methods, and noncompliance may lead to automatic deductions from government payments to contractors. These financial penalties, known as "deducts", should be addressed in the SOW, and charged if performance standards are not satisfied. When "specific" procedures are required, the government bears the risk that compliance may still result in unacceptable performance. However, if the SOW establishes the minimum acceptable quality level (AQL), then the contractor assumes full legal liability for meeting this level of standard. [Ref. 18]

A quality assurance plan is required [Ref. 19] along with the SOW. This plan sets the surveillance requirements and procedures for the government's quality assurance evaluators. The quality assurance plan helps to ensure that adequate performance is achieved and establishes the mechanisms for the administration of the service. Quality standards are designed to be objectively measurable, and quality control is part of the contractor's responsibility.

Chapter IV will address MSC's newly implemented quality assurance program and SOW.

3. Contract Preparation

Once the SOW is converted to a solicitation which sets the basis of contractor bids, the government and

potential contractors prepare competitive bids to perform the tasks described in the solicitation. Contractors are free to use whatever method they prefer to calculate overhead, wages, fringe benefits, profit, and other budget items.

The DOD Authorization Act of 1981 requires that government in-house estimates be based on the "most efficient and cost effective organization for performance". [Ref. 20] The activity is not required to achieve the most efficient organization (MEO) prior to a cost comparison study but it must use the MEO as the basis for the government in-house estimate. [Ref. 18]

4. Cost Estimation

The cost of using the government to perform tasks described in the SOW is more complex to estimate than the cost of using a contractor. The government estimate must be based on the same SOW used for contract solicitation. Normally, the government cost estimation process begins with a major review of management procedures and practices. Circular A-76 advises activities to conduct in-house management reviews prior to calculating cost. This will ensure that the operation is organized and staffed for consistency with the activity's manpower and personnel regulations.

Detailed procedures for calculation of material, personnel, and overhead costs along with standard formulas

used to estimate retirement cost, insurance, workmen's compensation and other benefits are described in Circular A-76. After the in-house estimate is prepared it must be reviewed by a qualified activity, usually by an independent audit agency. The area Naval Audit Service normally performs this service for Navy commands, ensuring compliance with A-76. The Audit Service also reviews and approves the proposed SOW and the MEO. This audit must be started 120 days prior to bid opening. [Ref. 21]

5. Solicitation

When the in-house estimate has been approved, contract bids or proposals will be solicited. Although firm fixed-price contracts are the preferred method of contracting, other pricing arrangements and formal advertising may be approved in rare instances. [Ref. 22] Sealed bids submitted by the government and potential contractors are opened and costs compared.[1]

The contracting officer opens the bids on the appointed date and determines the lowest acceptable contract price of the responsive and qualified bidders.

6. Cost Comparison

If the lowest contract price appears to be sufficiently less costly (less than 90 percent of the government cost), a pre-award survey is conducted to determine if

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[1]If no contractors bid, work goes directly to the government. If there is no government bid, a contractor is selected to perform the work.

the lowest bidder is capable of performing the work. If so, the contract is awarded and the in-house operation is dismantled. [Ref. 1]

If all contract bids exceed 90 percent of the in-house cost, then the government performance is noted as the lowest bid and the cost comparison process is complete.

Circular A-76 provides for the use of differentials in considering conversions of either in-house or contract performance when the contract price is less than the in-house estimate. Adjustments are made to the in-house bid to consider the cost of capital charge that may be added if government assets are required to assure contract performance. The lowest bid contract price is also adjusted to consider several factors. A cost of capital charge may be added when government assets are required to insure contractor performance. Conversion costs are added to reflect the one time costs incurred by the government in switching operations from in-house to contract. [Ref. 18]

When an activity experiences a reduction of present capacity as a result of contracting out an operation, the additional amount of overhead that must be absorbed is added to the contract cost. Another adjustment made to the contract price is the deduction of the potential federal income tax revenue that would be paid by the contractor.

After all adjustments have been made, an existing in-house function will not be converted to contract

performance unless the conversion will result in savings of more than 10 percent of the government estimated personnel related cost. This (cost) differential is included to account for the possible loss of production, the temporary decrease in efficiency and effectiveness, and other unpredictable risks that result from contract conversion. [Ref. 23]

E. DECISION AND APPEAL PROCEDURES

> Upon completion of the cost comparison process, a recommendation is made to either award the contract or perform the function in-house. The recommendation, along with the cost comparison forms, is forwarded to the approving authority for review and approval. Once approved, the results of the cost study are announced and the detailed analysis is made available to the public. If no significant discrepancies are identified or an appeal lodged within 5 working days (which may be extended by the contracting officer up to 15 days for complex decisions), the contracting officer will either award the contract or cancel the solicitation. In the event the function is to be performed in-house, implementation of the MEO must be initiated within 30 days and be completed within one year. [Ref. 18]

F. SUMMARY

This chapter has briefly outlined the background and key features of OMB Circular A-76, the related documents that supplement and clarify the circular, and the development of the procedures contained in these directives. Chapter IV will examine how the procedures of A-76 were applied to MSC Nucleus Fleet.

IV. MSC SHIPS AND OMB CIRCULAR A-76

A. INTRODUCTION

Although OMB Circular A-76 was reissued with force in 1979, its procedures were not implemented by MSC for several years. MSC, along with a number of other federal agencies (inside and outside DOD), did not feel the need to disrupt their functional operating procedures in order to implement the unfamiliar procedures set forth by Circular A-76. It was only during the following election year, 1980, that its implementation was pursued by presidential candidate Ronald Reagan as part of his campaign platform.

Reagan promised that more Navy and Marine operations would be contracted out to the private sector. This action, he argued, would allow commercial contractors to hire merchant mariners to operate and maintain the ships under contract. As a result of this campaign promise, Reagan won the support of the Seafarers International Union (SIU), one of the major merchant mariners unions.

Despite the rumblings of a primary presidential contender, MSC still did not immediately begin to implement A-76. However, other actions were being taken by the Joint Maritime Congress to prompt the Navy into implementing A-76 procedures regarding ship operations.

B. THE STUDY

In December 1981 the results of a study conducted by Booz, Allen, and Hamilton, Inc. (Transportation Consulting Division) for the Joint Maritime Congress on the civilian contract operation of government ships was published. The study focused on a proposed contract operation of 71 Navy Fleet Support Ships and 61 MSC Nucleus Fleet Ships. The study concluded that it was feasible for MSC to consider commercial contract operation for these vessels. However, the following limitations were noted:

- High-tempo battle group operation may be difficult with contract crews.
- Dedicated pools of merchant mariners and no-strike agreements would be necessary to ensure crew continuity under contract operations.

The study also pointed out that the feasibility of contracting out the ships depended on three key factors: "Impact on military readiness and command and control, civilian manpower implications, and cost savings to the government." [Ref. 5] Results of the study showed that contracting out MSC Nucleus fleet, Special Mission ships would not compromise the necessary readiness or command and control requirements and would present no significant problems. The results also showed that implications to civilian manning favor contract operations of MSC ship for the following reasons: [Ref. 5]

- Across-the-board reductions in crew size are indicated for contract operation compared to civil service operation.

- Contract manning would create jobs for merchant mariners.
- There is a sufficient number of skilled merchant marines to man MSC ships.

Finally, the results indicated that cost estimates would be about the same (within plus or minus 10 percent) for a commercial contractor to man each of the ship types when compared to MSC manning requirements.

The findings fell on deaf ears within MSC, and contract operations under Circular A-76 continued to be ignored.

C. THE PUSH

In 1983 President Reagan, feeling pressure from the SIU, criticized the Navy for not contracting out eligible ships under OMB Circular A-76. President Reagan's action was politically motivated in that an election year was approaching and he wanted the support of the union for re-election. The Secretary of the Navy (SECNAV) was directed to initiate proceedings implementing commercial activity regarding MSC ship operations.

On 19 January 1984 the Deputy Chief of Naval Operations (Logistics), by direction of the CNO, sent a letter to the Commander, MSC directing MSC to develop Requests for Proposal (RFP) to initiate commercial contract manning of the operating crews for several special mission ships by 15 March 1984 (see Appendix A).

D. THE ACTION

Upon receipt of this tasking from CNO, MSC finally began to set the proper implementation machinery in motion. MSC developed Statements of Work, performed Cost Comparison Studies and solicited bids for each type of Special Mission Ship. Contracting out ship operations was not a new issue for MSC; previous RFP's had been written and awarded.[2] What was new to MSC were the procedures required for commercial activities under Circular A-76.

The procedures associated with A-76, including a contract award, were completed for the 12 oceanographic ships on 6 December 1985, less than 24 months after the tasking was received. The contract was awarded to Lavino Shipping Company Inc. for $90.0M, an estimated savings of over $24.8M. MSC's total in-house cost (bid) was $114.8M. Table II is the cost comparison form for the 12 oceanographic survey ships. These ships were the first to be processed and contracted out under A-76. This award under A-76 procedures provided MSC with experience used in the preparation of RFP's for the other ships.

Range, cable, and hospital ships were ultimately awarded to in-house contracts. The government provided the lowest bid even after taking into account conversion differentials.

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[2]In November 1974 Marine Transport Lines, Inc. was awarded a contract to operate nine MSC tankers. This contract has been renewed and is currently in effect.

TABLE II
COST COMPARISON FORM FOR THE 12 OCEANOGRAPHIC SURVEY SHIPS

Oceanographic Survey Ships
(Function)
(LOTS I, II, III, & IV)

COST COMPARISON FORM
IN-HOUSE VS. CONTRACT PERFORMANCE
6 DECEMBER 1985

	Performance Periods				
In-House Performance Costs	1st	2nd	3rd	Total	Ref
1. Personnel Cost	26,689,651	26,998,823	28,796,502	82,484,976	W.P. R1
2. Material & Supply Cost	3,998,343	3,774,519	3,954,763	11,727,625	W.P. R2
3. Other Specifically Attributable Costs	5,026,581	5,225,857	5,425,181	15,677,619	W.P. R3
4. Overhead Cost	1,570,677	1,631,968	1,705,225	4,907,870	W.P. R4
5. Additional Costs					
6. Total In-house Costs	37,285,252	37,631,167	39,881,671	114,798,090	
Contract Performance Costs					
7. Contract Price				79,750,778	
8. Contract Administration	951,482	989,011	1,032,319	2,972,812	W.P. R5
9. Additional Costs					
10. One-time Conversion Costs	292,411	292,411	292,411	877,233	W.P. R 10
11. Gain or Loss on Disposal/ Transfer of Assets					
12. Federal Income Tax (deduct)	( )	( )	( )	(2,392,523)	
13. Total Contract Costs				81,208,300	
Decision					
14. Conversion Differential				8,777,401	W.P. R14
15. Total (Line 13 & 14)				89,985,701	
16. Cost Comparison (Line 15 minus Line 6)				24,812,389	

Cost comparison forms for the cable and range ships are presented in Tables III and IV.

Implementing A-76 for ship operations provides MSC with operating cost savings. A summary of the total savings for each ship function is illustrated in Table V.

E. FINDINGS

The discussion of findings is organized around three key questions that motivated this research:

- What is the effect of A-76 procedures on the cost of operations for the MSC Nucleus Fleet?
- Will A-76 procedures affect readiness and maintenance quality of the MSC Nucleus Fleet?
- What problems have been encountered with the application of A-76 to the MSC vessels?

1. What is the effect of A-76 procedures on the cost of operations for the MSC Nucleus Fleet?

> Although Circular A-76 states a philosophical preference for using commercial sources whenever possible, it mandates cost minimization as the criterion for deciding whether government employees or private sector contractor should perform functions that are not intrinsically governmental in nature. [Ref. 1]

The basis for the question was to determine if the application of A-76 to MSC vessels saved money.

The information and data comparing the cost[3] of ship operation before and after implementation of A-76 procedures was collected from RFP documentation including

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[3]This comparison is only an estimation. Operational costs for each ship type were not maintained as separate statistics prior to A-76. The only cost that could be readily identified per ship type was manning. Maintenance and supplies were also not separately maintained; therefore only estimated amounts were obtained.

TABLE III
COST COMPARISON FORM FOR 5 CABLE SHIPS

Cable Ships
(Function)

COST COMPARISON FORM
IN-HOUSE VS. CONTRACT PERFORMANCE
OCTOBER 1987*

USNS NEPTUNE
USNS MYER
USNS ZEUS
USNS MIZAR
USNS FURMAN

	Performance Periods					
In-house Performance Costs	1st	2nd	3rd	Additional	Total	Ref
1. Personnel Costs	$7,166,675	$9,307,971	$9,782,859	$2,946,681	$29,204,186	W.P. 1
2. Material & Supply	1,079,763	1,430,814	1,486,549	446,127	4,443,253	W.P. 2
3. Other Specifically Attributable Costs	1,322,232	1,647,847	1,697,142	434,236	5,101,457	W.P. 3
4. Overhead Costs	573,213	775,371	788,113	219,075	2,355,772	W.P. 4
5. Additional Costs	227,072	283,840	283,840	56,768	851,520	W.P. 5
6. Total In-house Costs	10,368,955	13,445,843	14,038,503	4,102,887	41,956,188	
Contract Performance Costs						
7. Contract Price	14,437,624	16,769,495	17,270,743	4,831,095	53,308,957	
8. Contract Administration	612,152	698,779	743,570	187,259	2,241,760	W.P. 8
9. Additional Costs						
10. One-time Conversion Costs	1,461,818	2,526,806	2,526,801	1,064,987	7,580,412	W.P. 10
11. Gain or Loss on Disposal/ Transfer of Assets						
12. Federal Income Tax (Deduct)	(245,440)	(285,082)	(293,603)	(82,129)	(906,254)	
13. Social Security (OASDI) and Savings Plan Costs (Deduct)	(350,000)	(350,000)	(350,000)		(1,050,000)	
14. Total Contract Costs	15,916,154	19,359,998	19,897,511	6,001,212	61,174,875	
Decision						
15. Conversion Differential	783,547	1,020,032	1,069,008	319,763	3,192,350	W.P. 15
16. Total (Line 14 & 15)	16,699,701	20,380,030	20,966,519	6,320,975	64,367,225	
17. Cost Comparison (Line 16 minus Line 6)	6,330,746	6,934,187	6,928,016	2,218,088	22,411,037	

*Revised IAW CNO ltr 4860 Ser 443/7U392579 dtd 30 OCT 87; Subj: DECISION ON APPEALS OF CABLE SHIP COST COMPARISON. Revisions for line items 1,5,6,10,14,16 and 17 were made by equally dividing the directed cost adjustments among the Performance Periods. For USNS NEPTUNE, MYER, MIZAR and FURMAN, the Performance Periods are shown as 1st, 2nd and 3rd. For USNS ZEUS the Performance Periods are shown as 2nd, 3rd, and Additional.

TABLE IV
COST COMPARISON FORM FOR 5 RANGE SHIPS

Range Ships
(Function)

USNS VANGUARD
USNS RANGE SENTINEL
USNS REDSTONE
USNS OBSERVATION ISLAND
USNS POINT LOMA

COST COMPARISON FORM
IN-HOUSE VS. CONTRACT PERFORMANCE
MAY 1987

Performance Periods

In House Performance Costs	1st	2nd	3rd	Additional	Total	Ref
1 Personnel Cost	$6,963,845	$7,093,306	$7,495,433		$21,552,584	W.P. 1
2. Material & Supply	1,393,656	1,426,719	1,493,774		4,314,149	W.P. 2
3 Other Specifically Attributable Costs	1,707,703	1,763,845	1,845,182		5,316,730	W.P. 3
4. Overhead Cost	611,461	624,537	638,350		1,874,348	W.P. 4
5 Additional Costs	51,240	55,272	54,126		160,638	W.P. 5
6. Total In-House Costs	10,727,905	10,963,679	11,526,865		33,218,449	
Contract Performance Costs						
7. Contract Price	15,974,810	16,255,438	17,114,415		49,344,663	
8. Contract Administration	747,025	769,282	792,543		2,308,850	W.P. 8
9. Additional Costs						
10 One-time Conversion Costs	143,678	143,678	143,679		431,035	W.P. 10
11. Gain or Loss on Disposal/ Transfer of Assets						
12. Federal Income Tax (Deduct)	(271,572)	(276,342)	(290,945)		(838,859)	
13. Social Security (OASDI) and Savings Plan Costs (Deduct)	(325,000)	(325,000)	(325,000)		(975,000)	
14. Total Contract Costs	16,268,941	16,567,056	17,434,692		50,270,689	
Decision						
15. Conversion Differential	595,952	603,677	648,754		1,848,383	W.P. 15*
16. Total (Line 14 & 15)	16,864,893	17,170,733	18,083,446		52,119,072	
17. Cost Comparison (line 16 minus line 6)	6,136,988	6,207,054	6,556,581		18,900,623	

*BECAUSE THE POINT LOMA IS A NEW START, THE CONVERSION DIFFERENTIAL FOR THE POINT LOMA HAS BEEN DEDUCTED FROM THE TOTAL

TABLE V

STATUS OF A-76 STUDIES

7 APRIL 1988

Study (# of Ships)	OUTCOME		SAVINGS[3]		APPEAL	
	Contract	Government	$	%	CNO	GAO
Oceanographic (12)	X		* $33.6M	29.3%	Completed	---------
Hospital (2)		X	3.9M	27.3%	Completed	Completed[4]
Cable (5)		X	22.4M	34.8%	Completed	Completed
Range (5)		X	18.9M	32.4%	Completed	Pending
Tugs (7)	In Progress[1]		-----	-----	---------	---------
T-ACS/T-AKR (2)	In Progress[2]		-----	-----	---------	---------

1. RFP issued 19 June 1987; currently being modified to incorporate Action 88 acquisition streamlining initiatives.

2. Draft RFP being revised to eliminate T-ACS due to non-availability of funds.

3. Difference between government estimate and low commercial offer as adjusted by any appeal decision.

4. Request for reconsideration pending at GAO.

* This amount differs from the original $24.8M savings due to adjustments made in appeal decision.

Source: MSC Headquarters, Washington, DC

the Management Efficiency Studies (MES) for each ship type and through interviews. The commercial activity management (cost) study is mandatory under Circular A-76. As discussed in Chapter III the activity must use the criteria of the study and cost comparison to determine the most efficient organization. The government in-house estimates are then based on achieving the MEO.

The data in the MES for the five Range Instrumentation Ships suggest that A-76 leads to a reduction in manning requirements with limited increase in the use of labor saving capital equipment. Labor saving equipment that was installed includes a cafeteria style feeding facility and automatic data processing machines. The manning reductions appear to be the major cause of savings associated with A-76 procedures. Table VI illustrates the proposed manning reduction scale for each ship type. Note that the range ships reduced manning from 318 crew members required to operate four ships to 221 crew members to operate five ships.

The management efficiency study further implies that MSC crews were on the average significantly larger than crews on comparable vessels in industry. [Ref. 24] This is primarily the result of the Navy's philosophy of doing maintenance with the ship's crew whenever possible. The general model of MSC shipboard organization is shown in Figure 3. All departments are not required on every ship.

TABLE VI

PROPOSED MANNING SCALES REDUCTION[1]

SHIP TYPE	NAME	MANNING PRE A-76	AUTHORIZED POST A-76	REDUCTION (%)
CABLE	MIZAR	45	31	
	MYER	74	62	
	NEPTUNE	74	62	
	FURMAN	34	31	
	ZEUS	80	66	
		307	252	18%
RANGE	R. SENTINEL	69	40	
	REDSTONE	85	45	
	O. ISLAND	78	52	
	VANGUARD	86	44	
	POINT LOMA	n/a[2]	40	
		318	221	31%

[1] Data for the oceanographic and hospital ships were not available for the following reasons: (1) the hospital ships were acquired and manned directly under A-76 procedures, (2) the oceanographic ships were contracted out and MSC proposed manning reduction is confidential data.

[2] USNS Point Loma was not crewed with civilian personnel prior to A-76.

Source: Management Efficieny Studies for Range Instrumentation and Cable Ships
MSC Headquarters, Washington, DC

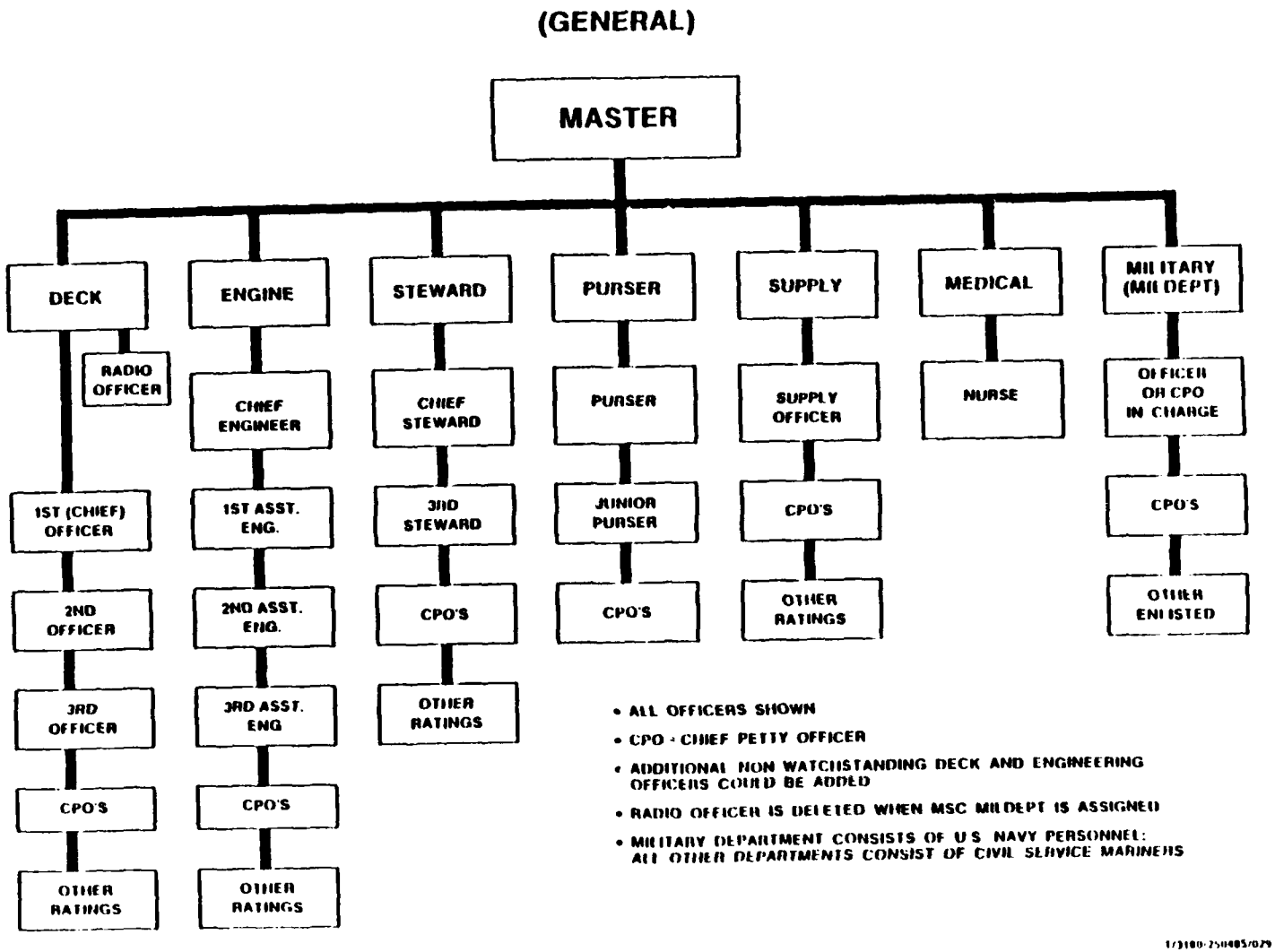

Figure 3 MSC Shipboard Organization

The medical department is established on an as required basis, and none of the Special Mission Ships include a permanent supply department which is found only on MSC Fleet Support ships. In addition to the labor saving equipment, changes to operating procedures were recommended to accommodate the reduction of positions. Such changes included:

- Using Night Mates and Night Engineers on weekends,
- converting some dayworkers, such as First Officers, to watchstanders, and
- using contract guard service when ships are in port.

Some form of operational change and reduced manning was recommended for all ships. The manning reduction recommended for the oceanographic ships was a smaller percentage than those proposed for the range and cable ships. Persons interviewed said this was a reason why MSC lost the award of these ships. The contractors bidding for award of the oceanographic ships had no intention of doing maintenance with the ship's crew and operating unnecessary departments. As a result, the bids entered were for the projected cost to crew these ships with the minimum personnel required by industry. These ships were contracted out, but MSC contracting officers got smarter. The RFP's for the range and cable ships recommended the elimination of all positions over the required industry or Coast Guard minimum. When these minimums differ, Coast Guard requirements took precedence. Positions recommended for

elimination included Stewards, Cooks-Bakers, 2nd Assistant Engineers, Unlicensed Junior Engineers, Laundrymen, Messmen, Yeomen/Storekeepers and Radiomen. Engineering and Steward Departments took the largest personnel cuts. On the range ships alone there was a reduction of 41 personnel from the Engineering Departments and 68 personnel from the Steward Departments.

Along with manning reductions, wage scale differences of union mariners and civil service mariners together with insurance premiums paid by contractors also increased MSC cost savings. The Navy's cost comparison studies show that the use of Civil Service personnel is 20 percent less expensive than the use of contract manning. Table VII is a comparison of four specific ratings showing the difference in pay for a point-to-point tanker[4] without overtime or premium/penalty pay.

> Overtime, premium and penalty pays are influenced by type of ship and mission. If these pays were included, however, the cost difference would be greater. Overtime on Civil Service operated point-to-point tankers ranges from 75 to 90 percent of base pay. Overtime on contract operated tankers for MSC ranges from 120 to 140 percent of base pay. [Ref. 25]

The wage rates used in MSC cost estimate are the wage determinations for Civil Service mariners made by the U. S. Department of Labor under the Service Contract Act. As for insurance costs, an amendment to the RFP stipulates

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[4]Contractors negotiate wages with the labor union for each position on a specified ship type. These amounts vary with each union.

TABLE VII

ANNUAL COST BY RATING--BASE PAY AND FRINGE BENEFITS--SEALIFT TANKER BASED ON PAY RATES OF 16 DECEMBER 1980 (EXCLUDES OVERTIME/PREMIUM/PENALTY PAY)

	MASTER	3RD MATE	3RD ASST ENGINEER	AB
CONTRACT OPERATION	$188,863	$87,736	$77,833	$23,136
MSC CIVILIAN MARINERS	73,012	38,480	38,480	21,105
DIFFERENCE	$115,851	$49,256	$39,353	$ 2,031

Source: DOD Testimony in Hearings before House Committee on Merchant Marine and Fisheries, July 1981, page 151.

that the contractor shall secure the customary full form Protection and Indemnity (P&I) marine insurance coverage. The insurance is to cover all liabilities in the amount of $100 million per incident. The contractor shall be responsible for the cost of the insurance, including deductibles. The annual insurance premium for the 12 oceanographic ships varies from $27.4K to $29.8K per ship. The total premium paid is approximately $336.6K per year, a cost MSC could disregard. [Ref. 26] The federal government is the MSC insurer, therefore no insurance premium was required.

Although the operation cost data for each ship type is not precise, Circular A-76 specifies that a commercial contractor replaces an in-house operation only if the contractor's bid is low enough to provide at least a 10 percent savings over the in-house bid. Thus, even if MSC does not bid below its pre-bid operating budget, the contractor replacing an in-house operation must do so at a cost savings of at least 10 percent. Persons interviewed suggested that with just a proposed reduction in manning alone the in-house bid and cost estimates would be significantly below MSC's traditional operating budget allocation. Therefore, if a contractor wins the bid competition, the ships operating costs normally drop substantially more than 10 percent below the pre-A-76 amount.

Consistent with these results, and with the contract awarded to Lavino Shipping Company, interviews indicate widespread belief that the government could win an A-76 bid competition only by severe cost cutting. This translated into severe personnel cuts.

Some restraint is required before concluding that A-76 uniformly and dramatically lowers cost to the government. Consider the following issues: First, although A-76 seems to lead to dramatic reductions in the number of crew members, these reductions may overstate the total cost savings when A-76 leads to contracted-out operations. Even though A-76 cost comparison guidelines deal with contract administration costs in detail, it is possible that contracting involves administrative costs that were not included in the data available. These costs may be paid in the form of additional contract administrators or, when additional administrators are not hired, in the form of insufficiently administered contracts or using military personnel in unauthorized billets.

Interviews with members of the Operations Department at MSC Headquarters and MSC Atlantic indicate that a greater percentage of their time and personnel were doing contract administration rather than actual operation duties. Contract administrators were working more hours and were still having trouble keeping up with the paperwork requirements of A-76. However, even as these additional

requirements exist at MSC, it is difficult to assess whether these requirements do more than slightly offset the cost savings associated with the general pattern of manning reductions.

A second note of caution should be considered when viewing cost comparison figures. Cost estimates exclude fees paid to contractors for performing unanticipated services not included in the statement of work and the cost for maintenance performed in port previously done by the crew.

The third cautionary note concerns the time frame covered by the data available. These data allow examination of short-term costs only. Interviews with Engineering and Operations Department personnel indicate that as a result of the fixed-price structure of A-76 contracts, there is a strong incentive for contractors to do a minimum amount of required maintenance. Doing the minimum costs less and take less time. Unfortunately, not only the contractor operates this way. Because of the massive manning reductions imposed, even ships operating under in-house contracts suffer from limited required maintenance. It is possible that data covering a longer period of time would show different effects of A-76 procedures on the cost of maintenance and subsequently operations, in the long run.

In summary, after having alerted readers to ambiguities and limitations of the findings about cost

effects of A-76, a brief summary is provided. Interviews and limited administrative data suggest that A-76 leads to:

- very large reductions in manning, and;
- in-house operations are able to avoid certain expenses that must be borne by contractors.

2. Will A-76 procedures affect readiness and maintenance quality of the MSC Nucleus Fleet?

Interviews with personnel and other data indicates that, in general, the implementation of A-76 has had little to no effect on readiness of MSC vessels. Readiness data, described as the ship's ability to fulfill operational duties and required time at sea, indicates that readiness has been unaffected or improved since A-76 was implemented. This stems from the fact that contractors do not get reimbursed for wages paid while the ship is in port over a specified number of days. Therefore, ships are only in port for scheduled maintenance, overhaul, drydock or as required by sponsor.

The transition to A-76 procedures has involved enormous cutbacks in crew personnel who perform maintenance onboard the ships. Repair work is limited to minimum solutions, even when small increments in time and materials would lead to much more thorough and beneficial maintenance. Emphasis is now placed on monitoring the condition of the vessels and anticipated maintenance requirements, rather than performing preventive maintenance. This deferred maintenance has led to problems for MSC's quality assurance

(QA) supervisors when assessing QA levels specified in the statement of work. However, an engineer interviewed stated that deferred maintenance problems and the assessment of contractor quality assurance levels are not shortcomings of A-76, but rather MSC's lack of a quality assurance program.

Prior to A-76, MSC used the crew to perform preventive maintenance, repair work and overhauls. This in-house performance was never quantified by MSC; there was no need for a QA plan. For example, when something was broken or rusted, it was simply repaired or painted. An area of concern for some MSC personnel is cosmetic maintenance. An operations officer interviewed reported displeasure with the appearance of the ships. Comments such as "rust buckets" and "embarrassment to MSC" were stated. Another area of concern was that without preventive maintenance, equipment casualties will increase as the years go by. Both of these concerns should have been addressed in a formal QA plan.

A-76 procedures require QA standards and minimum levels of acceptance. Whereas maintenance and upkeep programs were addressed in the SOW, MSC's acceptable quality level and standards was not. The SOW instructs the contractor to maintain each ship so as to comply with U. S. Coast Guard regulations (Code of Federal Regulations Chapter 46) and the rules of the American Bureau of Shipping. MSC minimum maintenance standards were omitted from the SOW and without these standards, MSC QA supervisors are unable to

determine if the maintenance performed would satisfy MSC's minimum requirements. In May 1987, MSC developed a QA program that implemented maintenance standards for MSC vessels. Appendix B is the background paper recommending QA program implementation. Data to evaluate the effects of the program is not yet available.

To briefly summarize findings about the effect of A-76 on readiness and maintenance--personnel interviewed report that readiness remains the same or improved under A-76, while problems with deferred maintenance have not been fully assessed. Personnel reported that A-76 procedures lead to reduced crews (contract or in-house) to do the absolute minimum of maintenance necessary. These same personnel also state that steaming time or time at sea, an indicator of fleet maintenance and readiness, is sustained.

3. What problems have been encountered with the application of A-76 to the MSC vessels?

Organizational and subsequent operational changes virtually always proceed by trial and error. Changes of the type required by OMB Circular A-76 are no exception to this rule. Personnel interviewed have mentioned some descriptions of the trials and errors that have accompanied implementation of A-76 in MSC vessels. The descriptions of these problems are not a comprehensive catalogue of all the things that have gone awry in implementing A-76. Some are correctable areas while others may pose serious threats to the operational performance of the vessels or even to the

realization of the goals of Circular A-76. Attention to the problem area will be useful, both in evaluating the effects of A-76 on ship operation and in making future implementations of A-76 proceed more smoothly. First, problems that have occurred with in-house contracts will be considered. Then problems that have occurred with the contract operation of the oceanographic ships will be discussed.

a. Problems with In-House Contracts

Personnel interviewed reported that budget provisions of A-76 are enforced only in setting an upper limit on funding ship operations, and the statement of work defines only a subset of the total preventive maintenance expected of the in-house operation. A contractor is not required to perform any tasks omitted from the SOW. If requested to perform additional maintenance, the contractor can refuse or can require additional fees. In contrast, MSC's Engineering department reported that MSC must perform maintenance, not included in the SOW, and they do not expect to receive additional resources to perform that work. Resources have been reduced to win the bid, while maintenance requirements have been increased above that specified in the work statement.

The criteria for evaluating MSC in-house contract performance appear to diverge from A-76 procedures for in-house contracts. Whereas there are specific,

measurable criteria for the success of an A-76 contractor, the criterion for measuring ship operation for the in-house contract is reported to be maintaining the ships' operational status while sustaining the maintenance quality level that existed prior to A-76.

It appears that Circular A-76 has not been implemented fully at MSC when the contract is awarded in-house. However, this result is inconclusive because of the MSC's lack of experience in dealing with A-76 procedures. MSC has already taken steps towards full implementation of A-76. The quality assurance program implemented by MSC is an example. Another is an amendment to the SOW to include all the tasks necessary for preventive maintenance. Finally, receiving the required resources for necessary maintenance is yet another step. This will prove to be a function of the QA program.

b. Problems with the Contracted Out Operation

Many of the problems with the contract operation stem from the same area as with in-house contracts. Many problems result from ambiguous or incomplete SOW's. Personnel interviewed stated that A-76 procedures work well in areas covered by the contract. In areas where the SOW is deficient, there are problems. The basis of these problems appear to be the contractor's willingness to exploit SOW shortfalls by refusing to do more work than is contractually required, or by charging very high prices to perform work

not originally included in the SOW. This problem appears likely to remedy itself as old contracts expire and new contracts are written.

Another cause of problems was MSC's lack of providing timely quality assurance standards. Quality assurance inspectors had no guidance for establishing the contractor's quality assurance level. The success of contract performance under A-76 depends fundamentally upon the contractor's compliance with A-76 procedures, QAL being a key requirement.

F. SUMMARY

When the bid competition is won by the government, A-76 appears to function only as a mechanism for setting a budget ceiling. In practice, MSC in-house operations appear to be unable to refuse demands for maintenance tasks not in the SOW on which it bid (especially if this maintenance will disrupt operations) and equally unable to obtain additional resources with which to carry out this requirement.

As for MSC's A-76 contract operation, the major source of difficulty appears to be the result of ambiguous and incomplete statements of work (especially in the areas of maintenance) and in the criteria and procedures for measuring the contract compliance. Personnel reported that when the contract comes up for renewal, changes will be made to overcome problems encountered during contract performance. With the implementation of the quality

assurance program, MSC appears to be making progress towards full implementation of A-76 for, its in-house operations.

V. SUMMARY AND CONCLUSIONS

A. SUMMARY

> Since its initial release in March 1966, the Office of Management and Budget Circular A-76 has evolved into a controversial instrument of change in the way that federal agencies choose between in-house and commercial sources of support services, and in the way that these agencies manage the governmental and commercial contractors that provide these services. Proponents of Circular A-76 claim its virtues in reducing costs, whereas critics argue that A-76 lowers the quality of work performed. [Ref. 1]

This thesis addressed these claims by examining the effects of A-76 procedures on the cost, operational readiness and maintenance of MSC Nucleus Fleet.

Implementation of Circular A-76 procedures mandates many changes, and as noted in Chapter III, the most fundamental features are: [Ref. 1]

- Competitive, fixed-price bidding. Government organizations and commercial contractors submit fixed-price bids for the right to perform services needed by the government. If the government bid is sufficiently low compared with bids from commercial sources, then the government agency provides the service. Otherwise, the contract goes to the lowest-priced, capable commercial source. A government organization that loses an A-76 bid competition is dismantled, and its workers are either reassigned or laid off.

- Performance work statement control. Insofar as possible, contractors and government organizations operating under A-76 procedures are given a statement of work to be performed and are free to perform that work in any safe manner that is consistent with the demands of government or defense. The statement of work includes performance standards for specified tasks and financial penalties to be assessed contractors whose performance falls below those standards by a sufficient margin.

Although all Federal agencies are subject to the procedures of OMB Circular A-76, not all military activities have performed cost studies and changed traditional procedures according to the results. Some agencies perform tasks that are inherently governmental and are not required to perform cost studies. In 1984, MSC was tasked to perform a cost study and design a request for proposal for the Special Mission ships in its Nucleus Fleet. As a result of these RFP's, twelve oceanographic survey ships were contracted out, in-house contracts were awarded for the operation of five each cable and range ships and two hospital ships.

This study examined the cost, quality of maintenance and operational readiness of these ships when the work was performed by a commercial contractor and when MSC civil service mariners performed the work under the government contract. Thus this study looked at both contracting and the application of performance work statements.

B. CONCLUSIONS

The findings of this research are based on personal interviews, telephone conversations and other source data from MSC's Contracting, Engineering, Operations and Manpower departments. This research attempted to answer three questions.

1. What is the effect of A-76 procedures on the cost of operations of the MSC vessels?

Interviews and limited administrative data available suggest that application of Circular A-76 leads to

- very large reductions in crew manning, personnel who performed much of the maintenance task, and
- substantial differences in the short term cost of operations when compared to pre A-76 figures.

2. Will A-76 procedures affect readiness and maintenance quality of the MSC Nucleus Fleet?

The findings on the effects of A-76 procedures on readiness and maintenance are based mostly on personnel interviews and data reporting ships time at sea. MSC personnel report that the ships operational readiness (reflected by time at sea) improved or remained the same under A-76 procedures. The data on the effect of deferred maintenance or maintenance quality is inconclusive and can not be fully assessed at this time. However, the data suggests that ship operation will deteriorate in the long run if maintenance continues to be limited to tasks defined in the current SOW.

3. What problems have been encountered with the application of A-76 to MSC vessels?

As to be expected when any new procedure is adapted by an organization, application of A-76 procedures to MSC Special Mission ships' operations has proceeded with certain difficulties. When a bid competition is won by the MSC (in-house operation) rather than by a contractor, A-76 appears to function only as a mechanism for setting a budget

ceiling. In practice, the MSC organization appears to be forced to perform maintenance tasks not in the work statement and is equally unable to obtain additional resources to pay for these additional tasks.

In the commercial contract operation, the major source of difficulty appears to result from ambiguity and incompleteness of the statement of work and from insufficient detail in the criteria and procedures of MSC quality assurance level for measuring the contractor contract compliance. However, reports from interviews indicates that significant progress in overcoming these problems is being made as new contracts are written. MSC appears to be making admirable progress toward full application of A-76 procedures.

C. AREAS FOR FUTURE RESEARCH

This study covers a very limited time period in the application of A-76 to these MSC vessels. At the time of this research MSC only had one commercial contract operation under A-76. This contract was in its third year of a three year contract. Navy Audit Service was conducting an audit to determine if the efficiency study proved to be accurate and beneficial. The results of this audit are being analyzed at the time of the writing of this thesis. Therefore, based on the findings of this study and the analysis that will be provided by Navy Audit Service, further research in the following areas are recommended:

- Lessons learned from operating vessels with little to no preventive maintenance.

- Long-run cost factors for overhaul or dry docking as a result of insufficient maintenance procedures and practice.[5]

- Developing procedures to determine the full cost impact associated with administrating commercial contract. Cost should include MSC Engineering, Operation and Personnel staff members.

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[5]Items (1) and (2) will not be issues for future research if the SOW is amended to address preventive maintenance and minor repair as specified in MSC quality assurance program.

APPENDIX A

OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON, DC

IN REPLY REFER TO
Ser 04/4U382720
19 January 1984

From: Chief of Naval Operations
To: Commander, Military Sealift Command

Subj: Competitive Contract Manning of MSC Point to Point and Special Projects Ships, and Fleet Tugs

Ref: (a) VCNO memo for SECNAV dtd 9 Jan 1984; Subj: Non-government Crews Aboard Ocean Surveillance Ships (T-AGOS)

1. As a result of reference (a), the following direction is provided:

a. Develop and issue by 15 March 1984 Requests for Proposal (RFP) to implement commercial contract manning of the operating crews of:

NO.	TYPE SHIP	COMMENCE STUDY/ CONTRACT	A-76?	RFP ISSUE DATE
12	T-AGOS-1 Class	Immediately	No	NLT 15 Mar 84
13	Oceanographic Research/ Survey	Soonest	Yes	NLT 15 Mar 84
6	Cable Operations	After 15 Mar 84	Yes	NLT 30 Sep 84
7	T-ATF	NLT End FY 84	Yes	FY 85
4	Missile Range	NLT End FY 84	Yes	FY 85

b. Additionally, develop and issue RFP's to accommodate the functions of the following:

NO.	TYPE SHIP	RFP ISSUE DATE
3	T-1 Tankers	NLT 15 Feb 84
2	C-3 Cargo	NLT 24 Feb 84
1	RO/RO (Comet)	NLT 15 Jul 84

T. J. HUGHES
Deputy Chief of Naval Operations (Logistics)

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APPENDIX B

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MAY 19 1987

BACKGROUND PAPER

I. SUBJECT: QUALITY ASSURANCE PROGRAM IMPLEMENTATION

II. PURPOSE: To discuss options for implementation of Quality Assurance Surveillance Plans in areas of Preventive Maintenance and minor repairs.

III. MAJOR POINTS:

- It is necessary that MSC Headquarters establish policy for the implementation of the Quality Assurance Surveillance Plans (QASPs) in areas that impact engineering functions - Preventive Maintenance and minor repairs.

  — The A-76 program mandates that the Government implement Quality Assurance or Quality Control programs.

  — QASPs will be implemented by both Area Commands.

- As noted in earlier discussion papers, the policy for implementation of these plans must be:

  — Fair and reasonable.

  — Equitable in application, not dependent on the "quality" of the contractor (or MSC).

  — Similar to the Quality Control plan to be implemented by MSC for those vessels retained for operation as a result of A-76 action.

- The QASPs include requirements for interaction with the contractor, using his Quality Control plan.

IV. DISCUSSION:

- The Oceanographic vessel operating contract, as the first in the A-76 program, has required MSCLANT to implement a QASP program while dealing with a somewhat reluctant contractor.

  — The perceived lack of attention to the maintenance and repair of the vessels has created conditions that are not conducive to the establishment of a QASP policy that meets the criteria noted above.

— Poor communications and personal attitudes resulting from these conditions, although perfectly understandable, are not suitable for the conduct of a program that has such far reaching impact on the way MSC does business.

- MSC has never quantified "in-house" performance of Preventive Maintenance and minor repairs.

  — Although basic Preventive Maintenance requirements are set forth in a COMSC Instruction and in technical manuals, and SAMM is being progressively developed and installed on ships, no means of rating performance has been established or implemented.

  — To establish a representative minor repairs list for the contract work statements machinery history cards were culled for the nature of repairs that MSC crews have performed on board in the past, but no quantitative review was made as to how often they were performed, the practicality of the crew performing them, and whether or not MSC crews are presently performing them.

- The implementation of a Quality Assurance or Quality Control plan should reflect the level of scrutiny that MSC is willing or able to withstand for our own operation of A-76 ships - the Hospital ships for example.

  — Crews have difficulty in performing all of the Preventive Maintenance required at present manning levels.

  — Review of many work packages and service orders indicates that MSC does not perform all crew capable repairs, nor are they necessarily performed in a timely a manner.

- The point of view that MSC does not need to be scrutinized as closely because of our performance record is not acceptable:

  — Our performance record has not always been so good.

  — In establishing an equitable QASP, if basic performance is a satisfactory assessment for MSC operation it should also be so for contract operators, with no deducts for failure to perform maintenance and repairs - off hire would be the only reason for withholding payments.

  — The establishment of surveillance programs that covers performance in all areas is an integral part of the A-76 program; MSC cannot dodge this issue and it will not go away.

V. RECOMMENDATIONS:

- It is recommended that the following policy guidelines be implemented as fair and reasonable, equitable, and in consonance with the present MSC mode of operation.

Preventive Maintenance:

— Each piece of equipment will be considered an element of the lot from which the sample will be drawn.

— Each element of the sample will be inspected, test operated, and machinery history cards reviewed for documentation of the required maintenance actions.

— The rating given by the evaluator will reflect a composite of all of these, noting the general condition of the equipment and appraising the performance of the contractor.

— Unsatisfactory ratings will be fairly subjective, but will permit the shipboard managers to program and prioritize maintenance actions while keeping the general condition of the plant in satisfactory condition without being penalized.

Minor Repairs:

— For three quarters of the year a list of minor repairs required on each ship will be compiled as a result of a joint walk-through by the QASP evaluator and the contractor's representative.

— The performance of these repairs will be rated as a result of random sampling procedures during quarterly inspections.

— Performance of specific repairs will be required immediately to maintain an acceptable material readiness of the vessel; otherwise the outstanding repairs will remain on the list.

— For the remaining quarter, coincidental to a pre-overhaul inspection, a more detailed list of repairs will be made and the sampling mode will change to 100% checklist. All repairs, or a designated list, will be required to be performed prior to completion of the overhaul.

— The detail of inspection used to compile the above lists must be similar to that presently used in inspecting MSC operated ships.

- The above procedures require a certain level of subjectivity. However, the nature of the work required is such that there is no alternative.

- The contract operator must become involved in the above processes. Additional efforts must be made in this regard.

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