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Delays In Loading And
Unloading Ships Cost Government
Millions Of Dollars Annually B-179260

Department of Defense

*UNITED STATES
GENERAL ACCOUNTING OFFICE*

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AUG. 16, 1973



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

LOGISTICS AND COMMUNICATIONS
DIVISION

B-179260

The Honorable
The Secretary of Defense 5

Dear Mr. Secretary:

This is our report pointing out that delays in loading and unloading ships in the Far East cost the Government millions of dollars annually. The significant contents of the report are summarized in the digest.

We are recommending that you (1) make the overseas terminal operators responsible and financially accountable for delays over which they have control and (2) that you consider the advantages of placing overseas ocean terminals under a single authority, either joint or a single service manager, capable of establishing common policy and coordinating terminals' activities.

Copies of this report are being sent to the Director,
Office of Management and Budget; the Senate and House Com-^{<1500}
mittees on Government Operations, on Appropriations, and ^{<300}
on Armed Services; and the Secretaries of the Army, Navy, ^{<500}
and Air Force.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "F. J. Shafer".

F. J. Shafer
Director

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ABBREVIATIONS

GAO General Accounting Office
MSC Military Sealift Command
MTMTS Military Traffic Management and Terminal Service

GENERAL ACCOUNTING OFFICE
REPORT TO THE SECRETARY
OF DEFENSE

DELAYS IN LOADING AND UNLOADING SHIPS
COST GOVERNMENT MILLIONS OF DOLLARS
ANNUALLY
Department of Defense 5
B-179260

D I G E S T

WHY THE REVIEW WAS MADE

Beginning in fiscal year 1970, funds and personnel of Far East military ocean terminals were reduced and the ports had to cut back their operating hours. As a result, Military Sealift Command (MSC) ships had to wait to be loaded and unloaded (See p. 3.)

GAO wanted to see what impact ship delay was having on the Government's transportation costs and to see if curtailing terminal operations was in the best financial interest of the Government.

FINDINGS AND CONCLUSIONS

Ship delays at Far East military ports are costing the Government an estimated \$10 million or more a year. Precise amounts are difficult to estimate because of weaknesses in the military's system of reporting ship delays. (See p. 5.)

Reduced operating hours of the Far East terminals was one reason for delays. Because of funding and manpower cuts, terminals curtailed their operations and as a result ships had to wait to be loaded and unloaded. (See p. 5.)

Another reason for delays was lack of coordination among the terminals.

Cargo information essential to efficient cargo operations was not communicated, and terminals often did not know what was in a particular hatch until it was opened. Poor loading practices, such as placing cargo for a later port on top of cargo to be unloaded first, also existed. (See p. 13.)

These reasons can be traced to the fragmented funding of ocean shipping--the commands controlling terminal budgets do not bear any ship-delay costs--and no single authority is responsible for ship dispatch at the various terminals. (See p. 5.)

RECOMMENDATIONS

GAO recommends that the Secretary of Defense make terminal operators responsible and financially accountable for ship delays over which they have control. (See p. 18.)

The Secretary of Defense should consider placing overseas ocean terminals under a single authority capable of establishing common policy and coordinating activities. (See p. 18.)

AGENCY ACTIONS AND UNRESOLVED ISSUES

Officials of the major commands

visited agreed that ships are being delayed. One reason cited for the delays was the reduction of funds for the ports and the resultant curtailing of port operations. (See p. 16.)

Officials of Headquarters, MSC, acknowledged that MSC ships had experienced delays in the Far East and agreed that terminal operators should be held financially accountable for such delays. (See p. 16.)

With respect to a single-manager concept, MSC officials pointed out that port operations in the United States may appear more efficient than the overseas terminal operations but that the U.S. manager is working in a different environment. He has authority to control the flow of cargo into terminals; overseas

operators do not. MSC officials stated, and GAO agrees, that the effectiveness of the single manager overseas would depend upon the degree of responsibility assumed and the manager's ability to overcome problems faced by the present operators. (See p. 16.)

U.S. Army, Pacific, officials agreed with GAO's recommendation that one agency should be responsible for loading, unloading, and moving ships. (See p. 16.)

Authorities at the office of the Commander in Chief, Pacific, had reservations about a single command's being responsive to the individual needs of the users, but they did agree coordination among all concerned needed to be improved. (See p. 16.)

CHAPTER 1

INTRODUCTION

A cargo ship's voyage cost--including purchasing or leasing the ship, crew wages, provisions, insurance, and port charges--is largely fixed. These costs continue whether the ship is productively employed in cargo operations or is standing idle. The daily operating cost of a modern cargo ship runs from \$5,000 to over \$10,000.

Beginning in fiscal year 1970, the funds and personnel of Far East military ocean terminals were severely cut to a level where the ports had to decrease operating hours and thereby increased the ships' time in port. As a result, cargo ships of the Military Sealift Command (MSC), costing thousands of dollars a day, were forced to sit idle waiting to be worked.

MSC is responsible for all military ocean shipping. It books passengers and cargo and controls its own sizable fleet of Government owned and chartered ships worldwide. It procures, maintains, and mans the fleet and is responsible for scheduling and operating it in a manner that will meet military service needs. At the end of fiscal year 1972, the controlled fleet consisted of 266 ships and the operating costs for the fiscal year totaled \$500 million.

MSC is industrially funded to operate like a commercial enterprise. All fund costs are met from its operating revenues--revenues derived through the rates charged military shippers. Rates are set with the objective of having the fund break even. Any MSC cost increases can raise the services' transportation bills, and any MSC cost reductions can lower them.

Although MSC is responsible for ocean shipping, it does not control its own freight terminals, a vital aspect of the shipping operation. Military ocean terminals in the continental United States are operated by the Military Traffic Management and Terminal Service (MTMTS), an agency of the Department of the Army. Like MSC, it services all military shippers.

The overseas terminals are operated directly by various Army or Navy local commands on a command-user basis for the

benefit of all military shippers. Local commands provide operating funds and staffing of these terminals through the normal military budgetary process.

Military operators of ocean terminals are responsible for calling cargo into the port, planning for loading it aboard ship, and for discharging and backloading of cargo. Ship turnaround times, their use, and overall effectiveness of the ocean freight system is controlled largely by the terminal operators rather than by MSC.

MSC recognizes the high cost of ship delay. The ships it controls are either Government owned or chartered for a fixed period, typically for a year or more. The estimated per diem cost of ship delay therefore is not a direct cost to the Government. Nevertheless the cost is real for, as MSC officials have pointed out, ship delays increase average turnaround times, causing them to have to operate more ships to carry the same amount of cargo.

MSC computes average daily operating costs for its various classes of ships and uses such costs in measuring the cost of ship delay. We have used these costs throughout this report for that purpose. MSC officials have pointed out, too, that ship delays are not only costly but can deprive shippers of material which may be needed to meet urgent military requirements.

CHAPTER 2

SHIP DELAYS COST GOVERNMENT

MILLIONS OF DOLLARS ANNUALLY

Ship delays at Far East military terminals cost the Government an estimated \$10 million or more each year. Precise amounts are difficult to estimate because the military system of reporting ship delays is neither complete nor sophisticated enough to provide management with overall costs.

The reasons for the delays include (1) reduced terminal operating hours which resulted from funding and manpower cuts and (2) the lack of coordination among the terminals as evidenced by poor communications and load planning. These reasons, we believe, can be traced to the fragmented funding of ocean shipping--the commands controlling terminal budgets are not held accountable for ship delay costs--and to the absence of a single authority responsible for ship dispatch at the various overseas terminals.

REDUCTION IN TERMINAL OPERATING HOURS RESULTED IN SHIP DELAYS

Before fiscal year 1970 the terminals at the three locations we analyzed (Korea, Okinawa, the Philippines) operated 7 days a week and 24 hours a day. Each has since reduced its operations and, at the time of our review, was operating 16 hours a day. The Okinawa terminals discontinued work on Sunday. Because the ships served by these ports operated 24 hours a day, they experienced delays in loading and unloading.

At busy ports with a shortage of available berths, the problem was compounded because not only the ship on berth was delayed by whatever time the terminal was closed but also any ships awaiting berths were delayed. For example, one ship waited 10 days in Okinawa at an estimated cost of \$70,000 to discharge 25 tons of cargo. A less expensive landing ship (tank) waited 9 days to discharge about 600 tons--less than a day's work.

Ships were delayed in getting in and out of the ports at Subic Bay (Philippines) and Okinawa because of the limited hours of tug and pilot service. Routine service at Okinawa

was limited to daylight hours, while the Subic Bay port was closed between 11 p.m. and 5 a.m. At Subic Bay merchant ships were often delayed during normal work hours because port services were not adequate to handle Navy fleet ships and merchant ships at the same time.

Funding and manpower cuts cited
as reasons for reductions

Nearly every time terminal operating hours were reduced, funding and manpower cuts were cited as the reasons. The ports we visited had all lost vital port personnel because of manpower reductions. Many of these employees were local nationals who made less than a dollar an hour, but their absence delayed ships costing hundreds of dollars an hour. In Okinawa ships were idle or worked at reduced speed for lack of a few cargo checkers. In some extreme cases stevedores were sent home because of the lack of the checkers.

Checker shortages also existed at Yokohama, Japan, and Pusan, Korea. Shortages of forklift drivers were noted at Yokohama and at the Army ammunition depot on Okinawa. The latter contributed significantly to the delays in working the ammunition ships. Sailing delays occurred at Pusan because a few manifesting clerks were lacking.

Many of the terminals also had shortages of cargo supervisors--both American and foreign nationals--to oversee operations. Several terminal officials stated that to work efficiently they needed at least one cargo supervisor per ship but that they had insufficient staff to provide that level of supervision when several ships were in port.

Generally operations on the commercial side of the various ports seemed better supervised than the operations on the military side of the same terminals. At Pusan there were no American civilian supervisors at all. Management officials largely depended on Korean supervisors to inform them of what was going on.

Personnel cuts were the result both of arbitrary manpower ceilings imposed on the terminals by higher authority and of decreased workloads at some terminals. In most cases it was difficult to assess the degree to which either factor separately influenced particular manpower cuts. We previously pointed out

the adverse effect of arbitrary personnel ceilings on military operations generally in a separate report. (See "Impact of Employment Ceilings on Management of Civilian Personnel," B-165959, Apr. 30, 1971.)

The cuts were based on average monthly tonnages handled but did not allow for normal fluctuations in terminal operations. Many delays seem to have occurred during periods of peak activity when the number of ships in port exceeded the terminal's capacity. Projected workload reductions used in staffing the terminal sometimes failed to materialize. (See p. 14 for discussion of poor scheduling and its effect on fluctuations of terminal operations.)

Personnel shortages were often aggravated by funding cuts. The terminals, not staffed to operate full time, were also forced to conserve funds by carefully controlling overtime and limiting stevedore differentials sometimes charged for night, Sunday, or holiday work, even at the cost of increased ship delay.

Cost of ship delays generally greater than additional cost to operate terminals

Reducing a terminal's operating hours does not reduce its total workload (the amount of tonnage handled). As one terminal official pointed out, work is merely deferred, not avoided, and backlogs are created reducing the terminal's efficiency.

Many of the terminal's costs, such as maintenance and the contracted services of trucking and stevedoring, are related to tonnages handled, rather than hours worked. Stevedore contracts do sometimes provide for premiums, typically 50 percent, for night work, but even this provision was lacking at some of the terminals visited.

The extra cost of operating additional shifts at the terminals comprises, for the most part, the personnel costs of providing the needed supervision and security during the longer work hours. Generally, these additional costs are outweighed by the savings from reduced ship delays.

Commercial ship operators told us they generally paid whatever overtime or other charges were necessary to expedite their ships. They said these costs nearly always turned out

to be nominal compared to the ship-delay cost. As one ship agent stated, "You can buy a lot of stevedores for \$9,000 a day."

At the Navy port of Yokosuka, Japan, commercial agents had arranged to have their ships worked overtime on Sundays and to reimburse the Navy for all overtime costs. There were no similar provisions for MSC ships and they sat idle if in port on Sunday. We selected one such ship, the USNS Merrell, that had been delayed on a Sunday and asked terminal officials to estimate what the extra cost of working it would have been and how much it could have been expedited as a result. Details of their estimate follows.

	<u>Date</u>	<u>Time</u>	<u>Cost</u>
Actual departure	Nov. 16, 1971	1620	
Estimated departure if worked Sunday	Nov. 15, 1971	<u>0745</u>	
Delay by not working Sunday		32.58 hours	
Cost of ship delay (32.58 X \$225)			\$7,331
Additional cost of working Sunday			<u>1,053</u>
Cost of not working Sunday			<u>\$6,278</u>

The USNS Merrell is a relatively inexpensive ship, and Sunday work in Japan, calling for a 100-percent premium, is probably the most expensive in the Far East. The practice of working commercial but not MSC ships on Sunday was also followed by the military terminal at Okinawa.

In 1971 Navy officials of the freight terminal at Subic Bay, faced with further reductions to a one-shift operation, prepared a study to show the hours of ship delay that would be encountered at various operating levels. Using the hours of delay developed by the Navy on the scheduling of 254 ships during 1970, we estimated the cost of operations and the cost of ship delays at various levels.

	Current operation 2 shifts 7 days (112 hours)	1 shift 5 days (40 hours)	1 shift 6 days (48 hours)	3 shifts 7 days (168 hours maximum)
Hours of ship delay	660	33,230	18,334	-
Estimated cost of idle ship time	\$212,098	\$4,528,050	\$2,488,950	-
Estimated terminal operating costs	<u>346,560</u>	<u>236,311</u>	<u>256,548</u>	<u>\$423,293</u>
Total cost	<u>\$558,658</u>	<u>\$4,764,361</u>	<u>\$2,745,498</u>	<u>\$423,293</u>

The hours and cost of ship delay shown are only those attributed to the terminal's being closed, and delays for other reasons at operating levels were not included. Terminal officials agreed that there would be an overall savings to the Government by operating a third shift but stated that they were precluded from doing so at present because of funding and personnel ceilings. The dramatic increase in estimated ship-delay costs, by cutting back the current two-shift operation to a one-shift operation, apparently prevented that action in this case.

This study made at Subic Bay was the only cost comparison we found that had been made by a terminal before reducing its operating hours.

Reduced operating hours--the
result of fragmented funding

As previously stated MSC is responsible for ocean shipping and pays the cost of ship delays, but it does not control the freight terminals. Various local commands directly operate overseas terminals and provide the operating funds and staffing.

Terminal operators establish operating hours. They do not adequately consider the cost of ship delay when making decisions regarding terminal schedules. The added cost of ship delay does not affect terminal funds.

ANALYSIS OF SHIP DELAYS

Ships can be delayed either because they are not worked at all or because they are not worked fast enough. The former type of delays are easier to measure, and most of the data on ship delay deals with the time that ships are totally idle. This includes the lost ship-day reports and information developed by the Naval Audit Service (see p. 15), as well as most of the data we compiled.

The time lost when ships are worked too slowly is much harder to identify and objectively measure. Such delays can occur because the terminal is not supplying enough stevedores, because stevedore productivity is low, or both. Some of the MSC demurrage reports have included delays for "failure to work the full reach of the ship," i.e., not enough stevedores. These delays, however, are hard to identify and measure, especially working from records after the fact. In addition it is hard to reach agreement with terminal authorities on what constitutes "reasonable dispatch."

Many ships nominally engaged in cargo operations were being worked with only a token effort. We therefore analyzed some delays of this type and concluded that the time lost because ships are not worked to their full capacity during cargo operations may even exceed the time they are totally idle.

Delays because ships were totally idle

We analyzed the percentage of time, expressed in ship-days (the equivalent of one ship in port 1 day), that MSC ships were idle at three Far East locations during the last quarter of 1971 as follows.

<u>Location</u>	<u>Number of ship calls</u>	<u>Average days in port (note a)</u>	<u>Average tonnage handled per ship-day. (note a)</u>	<u>Percentage of idle time in port</u>	<u>Cost of idle time</u>
Okinawa	58	5.4	984.7	52.2	\$1,116,892
Korea	23	4.4	536.9	29.9	244,816
Philippines	48	1.4	1,482.2	28.2	143,522
Total	<u>129</u>	3.8	964.6	43.7	<u>\$1,505,230</u>

^aNine of the 129 ships in the sample were excluded in computing average tonnages and days in port because tonnage figures were not readily available.

The average daily ship-delay cost in the sample was about \$6,900. In computing idle time we excluded delays due to weather and allowed for the normal time that ships require, after completion of cargo operations, to prepare for sea. We also excluded some ships that underwent repairs or were in port for fueling only. Thus the idle time shown and its related costs is that time that ships were waiting to get in and out of port or were on berth awaiting cargo operations. (See appendix.)

The percentage of idle time shown in the above table reflects primarily the time ships are in port outside of scheduled working hours. However, the figures on days in port and the amount of cargo handled are affected by both operating hours and the efficiency of cargo operations.

Assuming the period analyzed was representative, it would indicate an annual cost for idle ship time at these three locations of over \$6 million a year. The figures show also that the ships were idle from 28 to 52 percent of the time they were in port. By contrast, we were told by commercial operators that 10-percent idle time is the maximum that would be tolerated in their operations.

We analyzed delays at locations including some of the busiest Far East military ports. The terminals in Yokohama and Yokosuka also worked only two shifts, 6 days a week. Keelung and Kaohsiung in Taiwan and Sattahip, Thailand, were all closed for some period at night. The military port in Guam had the most austere schedule of all, working only a 40-hour week.

The MSC demurrage reports estimated ship-delay costs over \$700,000 during fiscal year 1971 at locations other than Okinawa, Korea, and the Philippines.

Delays because ships were not worked fast enough

It is standard commercial practice to work ships in a manner that will insure a minimum time in port. Modern cargo ships typically have five or six cargo hatches capable of being worked simultaneously. Completion of cargo operations is normally governed by the time it takes to work the "long hatch," i.e., the one requiring the most time. Often, if the ship's cranes are adequate and the type of cargo suitable,

double gangs will be assigned to the long hatch and thereby almost doubling speed. Work is normally scheduled in the other hatches so that they will be completed within the time scheduled for the long hatch.

At several military ports visited, however, MSC ships were being worked at less than full capacity. Often only a token force of one or two gangs was used on a ship. For example, we analyzed the working of 20 ships in Okinawa and concluded that 12 of them could have been expedited an average of 1 day, at a savings of over \$6,000 per ship.

At the ammunition pier in Okinawa ships were being worked at only about half their capacity. Although two berths were generally available on the pier, within the safety limitations on net explosive weight, only one ship at a time was being worked because of a lack of stevedores and trucks. We analyzed the working of 14 ships calling during the 6 months ended March 1972 and found that half of them had encountered delays averaging over a week, at a total delay cost of more than \$300,000. This included both delays during cargo operations and the time ships spent awaiting cargo operation, but not time lost for failure to work Sundays or a third, midnight shift.

We observed other examples at Pusan of ships' being delayed for about 2 days at average costs of around \$17,000 (\$8,500 per day) because they were not worked to their full capacity. Similarly, we analyzed the working of six MSC ships at Yokohama and found delays of 11 or 12 hours for each ship, at an average delay cost of about \$3,800.

By contrast the military terminals at Subic Bay were working ships to capacity. The naval magazine there worked 24 hours a day and routinely assigned 10 gangs to a ship. The freight terminal also assigned full gangs to each cargo hatch and worked past the normal shift hours to complete ships. The results, we believe, are readily apparent in the relatively short time in port and the high tonnages moved per ship-day shown in the table on page 10. We did not note any delays at Subic Bay for failure to work ships to their full capacity.

OTHER REASONS FOR DELAY

Lack of coordination among terminals

One aspect of efficient cargo operation consistently stressed by commercial ship operators and agents in discussions with us was the importance of receiving a ship's manifests and stowage plans before a ship's arrival. They pointed out that this was necessary so they could plan loads; schedule the optimum number of stevedores; and call for heavy lift equipment, when necessary. In short, to properly work a ship with a minimum of delay, the terminal must know ahead of time what is on it and where it is.

Military terminal operators frequently did not have this information before a ship's arrival. Typically load plans were made after the ship arrived, and often terminal personnel did not have any idea what was in a given hatch until they opened it. In extreme cases MSC ships even arrived at the ports completely unannounced. Although we could not measure the effect of not receiving timely information, it obviously caused ship delay.

There are probably several reasons why this cargo information, although required by the Military Standard Transportation and Movement Procedures, was not always being sent or received by the appropriate terminals. We believe, however, that the lack of any single authority over the various terminals is a primary reason.

Many terminal operators mentioned poor loading practices by other terminals in the theater as a reason for ship delay. Poor loading includes overstowage (placing cargo for a later port on top of that for a prior port) and other undesirable practices, such as putting a small vehicle in the square of the hatch (the area directly under the hatch cover), which prevents using the rest of the hold. The latter type of practice reduces ship use. Overstowage, on the other hand, causes terminals considerable, needless expense of double handling cargo.

We observed several cases where ships were held up while cargo loaded at a previous port was shifted so the terminal could load or unload its cargo. Commercial ship operators told us they sometimes intentionally overstow small amounts

of cargo to satisfy important shippers but that overstowage generally was considered a costly practice to be avoided.

By contrast, it was our impression that overstowage and other poor loading practices by the military terminals were common and resulted from the lack of coordination among the loading terminals and MSC, rather than by design. Terminal records frequently showed numerous hours spent in shifting previously loaded cargo, and we observed one large mariner class vessel in Yokohama that was delayed 8 hours because previously loaded cargo had to be shifted so Yokohama cargo could be loaded.

Commercial ship operators told us they prevented over-stowage and achieved maximum use by carefully blocking out cargo space for each port on a voyage and by preload planning of cargo to be loaded at each port. As indicated earlier, the lack of advance cargo data prevented this on MSC ships, and the lack of any central direction over the various terminals, it appears, made it more difficult.

Poor ship scheduling

Several military terminal operators told us there are times when no ships are in port and other times when several arrive simultaneously. They blamed poor MSC scheduling for ship delays. Such bunching of ships, we believe, would occur at present even with the best scheduling because ships are now subject to so many unpredictable delays at the terminals. Nevertheless, we noted indications that MSC scheduling could be improved.

Miscellaneous

Other delays which could be attributed to MSC are those caused by equipment failures, by inaccurate information sent to the ports by MSC concerning the space available on incoming ships, and by inaccurate estimates of when ships will be ready to sail (used for giving crews required notice of ship departures).

SEVERAL PRIOR REPORTS ON SHIP DELAY

Several management reports have been prepared by agency personnel which indicate, at least, the magnitude of the ship-delay problem. We believe, however, these reports understate the extent of delays and ignore those delays that occur when ships are worked too slowly.

MSC prepares a monthly report measuring "lost ship days" in the Far East. This is the time (expressed in equivalent ship-days) that ships, for various reasons, are idle for 12 hours or more. In the last quarter of 1971 alone 631 lost days were reported, at an estimated cost of \$3.5 million.

This report, used in programming shipping, is not well suited for our purpose of measuring controllable delays. Over two-thirds of the reported delays occurred in Vietnam, some of them for reasons beyond management control. On the other hand, the report excludes the numerous delays of less than 12 hours and the time lost in Okinawa. Our analysis (see appendix) showed that ships were idle in Okinawa an equivalent of 164 days during the same period.

Another MSC report attempts to measure the demurrage costs to its ships worldwide, except in Vietnam, based on a monitoring by MSC offices at the various ports. In fiscal year 1971 the reported delay costs totaled over \$5 million. This amount appears understated; our sample of ship delays for a single quarter at just the ports in Okinawa indicates delay costs well exceeding \$4 million a year. At the time of our visit, delays were not being reported from Okinawa.

In an independent study of ship delays, the Naval Audit Service found that MSC ships suffered 990 idle days at an estimated cost of \$5 million in Far East ports during the last half of 1970. The delays were attributed to the lack of stevedores and berths.

CHAPTER 3

AGENCY COMMENTS

Officials of the major commands and installations visited generally agreed that MSC ships are encountering delays at Far East ports. One reason cited for many of the delays was the reduction in funds for the ports and the resultant curtailing of port operations.

Officials of Headquarters, MSC, acknowledged that MSC ships had experienced delays in the Far East and they agreed that terminal operators should be held financially accountable for such delays. On the other hand, they believed that ship delays could probably be reduced if MSC paid the cost of terminal overtime and offered incentive bonuses to terminal personnel. However, they indicated that MSC authority over the terminals would be essential to insure maximum efficiency during normal working hours.

With respect to a single-manager concept, MSC officials pointed out that MTMTS may appear more efficient than the overseas terminal operators but that MTMTS is working in a different environment. MTMTS has authority to control the flow of cargo into terminals whereas overseas operators do not. MSC officials stated, and we agree, that the effectiveness of the single manager overseas would depend upon the degree of responsibility assumed and the manager's ability to overcome problems present operators face.

Officials of the U.S. Army, Pacific, believed that ship delay had to be approached from a systems point of view. They agreed with our recommendation that one agency should be responsible for loading, unloading, and moving ships. Under the present system, MSC has no control over port activities and conversely the ports cannot control vessel operations outside the ports.

Authorities at the office of the Commander in Chief, Pacific, recognized that ship delays were a problem but had reservations about a single command's being responsive to the individual needs of the users. They did agree that coordination among all concerned needed to be improved.

CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Although delays occur for a variety of reasons, we believe the problem generally could be alleviated by certain broad changes in the present ocean transport system. Most important would be to make the terminal operator, who now has the most direct control over ship dispatch, responsible and financially accountable for delays occurring in his port.

We believe it is essential to controlling ship delay that the command exercising authority over the terminal be held responsible for the cost of the delays over which it has the most direct control. This is the only practical way of insuring that continuing command attention will be given to ship dispatch. Both military terminal operators and MSC should decide on optimum operating hours after considering terminal and ship delay costs, and then provisions should be made for the terminal authority or its higher command to pay demurrage to the MSC industrial fund for failure to work ships during set hours. Reasonable criteria should be established concerning such uncontrollable delays as those caused by strikes and weather.

Demurrage charges should also be imposed for ships worked at less than full capacity. To do this the terminals and MSC should monitor each ship worked to determine the actual times ships were delayed for failure to work certain hatches with the appropriate number of stevedores. Reasonable completion times should be based on the actual tonnages handled rather than estimates made before the ship's arrival.

The implementation of procedures for minimizing ship delay could be facilitated, we believe, if the overseas terminals were under a common authority, such as they are in the continental United States. There the MSC has worked out a number of broad agreements with MTMTS that consider various ship and terminal problems in arriving at optimum levels for terminal operations to achieve the maximum overall economy to the Government.

The communications and loading problems discussed above can be partly attributed to the lack of any central direction over the various overseas terminals. Since these are operated by both Army and Navy commands, it is difficult to coordinate their activities even at the departmental level. At present, too, resource allocation affecting the entire transportation system is subject to the pressures on the local command. A single terminal authority overseas could take a broader view of the ocean transport system.

RECOMMENDATIONS

We recommend that the Secretary of Defense make the terminal operators responsible and financially accountable for delays over which they have control. Terminal operators and MSC should establish optimum operating hours after considering terminal and ship delay costs. The terminal operators should then reimburse MSC for failure to work ships during the agreed hours.

Operators should reimburse MSC for delays encountered when ships are not worked at full capacity. Ships will have to be monitored to establish delays of this type.

We further recommend that the Secretary of Defense consider the advantages of placing overseas ocean terminals under a single authority, either joint or a single service manager, capable of establishing common policy and coordinating terminals' activities.

CHAPTER 5

SCOPE OF REVIEW

We did review work (1) at MSC headquarters in Washington, D.C.; MSC Far East headquarters in Japan; and MSC Far East field offices and (2) in Hawaii at the Pacific headquarters of the Army, Navy, and Commander in Chief, as well as at Far East military ports. Our review included an examination of pertinent records, extensive discussions with military port and shipping officials, and observations of shipping operations at the ports visited.

We held discussions with commercial shipping agents and officials and with the masters and mates of various cargo ships to gain an understanding of standard commercial shipping practices.

APPENDIX

ANALYSIS OF IDLE SHIP TIME
AT OKINAWA, KOREA, AND THE PHILIPPINES
OCTOBER TO DECEMBER 1971

	<u>Korea</u>		<u>Okinawa</u>		<u>Philippines</u>		<u>Total</u>	
	<u>Ship days</u>	<u>Percent</u>	<u>Ship days</u>	<u>Percent</u>	<u>Ship days</u>	<u>Percent</u>	<u>Ship days</u>	<u>Percent</u>
Productive time	<u>83.2</u>	70.1	<u>150.4</u>	47.8	<u>47.4</u>	71.8	<u>281.0</u>	56.3
Unproductive time:								
Awaiting berth	-		50.9		4.5		55.4	
On berth during nonwork hours	20.0		82.0		6.8		108.8	
Awaiting cargo operations	15.5		10.1		1.3		26.9	
Awaiting shifting and sailing	-		<u>21.0</u>		<u>6.0</u>		<u>27.0</u>	
Total unproductive time	<u>35.5</u>	<u>29.9</u>	<u>164.0</u>	<u>52.2</u>	<u>18.6</u>	<u>28.2</u>	<u>218.1</u>	<u>43.7</u>
Total time in port	<u>118.7</u>	<u>100.0</u>	<u>314.4</u>	<u>100.0</u>	<u>66.0</u>	<u>100.0</u>	<u>499.1</u>	<u>100.0</u>
Total cost of idle ship time		<u>\$244,816</u>		<u>\$1,116,892</u>		<u>\$143,522</u>		<u>\$1,505,230</u>
Average cost per ship-day:	$\frac{\text{Total cost--1,505,230}}{\text{Total days--218.1}} = \$6,902$							

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