



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

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LOGISTICS AND COMMUNICATIONS
DIVISION

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Dear Mr. Secretary:

We have completed our survey of the worldwide ammunition distribution system of the Department of Defense (DOD). We found that the system had been responsive to military requirements and that ammunition had moved with relatively few delays en route. We believe, however, that this responsiveness was achieved at unnecessarily high costs in certain circumstances.

Details of our findings and observations on the domestic segment of our study were included in a draft of a proposed report in December 1970. Observations on the overseas phase of our study were furnished to you on February 25, 1972.

The close working relationship which our staff enjoyed with DOD on this survey--jointly discussing problem areas as they were identified--resulted in significant improvements in the ammunition distribution system.

A brief summary of several such improvements follows.

OBTAINING LOWER RATES FROM WESTERN RAILROADS

Most ammunition was produced in the Eastern and Central United States at locations from which it was more economical to ship overseas from east coast ports rather than from west coast ports. A principal reason for the east coast being rate favorable was the higher rail rates charged by carriers serving the west coast ports.

We found that DOD had not made greater use of east coast ports nor negotiated lower rates with western railroads, which would have made the overall cost by the west coast more competitive with the cost by the eastern ports. Despite the economic advantages of shipping ammunition from east coast terminals, approximately one-half of the ammunition being shipped overseas at the time of our survey in 1968-69 was being moved through west coast ports.

We briefed DOD officials on this matter in February 1969 and, in August of that year, they took action to obtain lower, more competitive rates from western railroads. This action resulted in savings of over \$16 million in the approximate 10-month period ended June 30, 1970.

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We believe this is a good example of the need for, and the advantages of, close and aggressive traffic management of commodities of all types which are moved in huge volumes to support the various military and support activities of DOD.

REDUCING VESSEL SHEATHING

The west coast ports were using more lumber for sheathing the interior of vessels than appeared to be required by Coast Guard regulations. We informed the Commander, Western Area, Military Traffic Management and Terminal Service (MTMTS), of our observations. After officials of Western Area, MTMTS, had confirmed the information we had furnished, the west coast ports were directed to sheath only to the extent required by Coast Guard regulations. Subsequently, the Naval Ammunition Depot, Bangor, Washington, substantially reduced the amount of sheathing used. We have been advised that the Navy Depot, Concord, California, plans to reduce the amount of sheathing it installs.

Although we cannot determine exactly the savings which have been achieved by reduced sheathing, officials at the Naval Ammunition Depot, Bangor, which is now closed, estimated savings of \$440,000 annually. Also, officials at Concord prepared a cost reduction report showing a savings of 50 cents in lumber costs for each measurement ton of ammunition shipped. On the basis of the projected fiscal year 1971 workload, the savings would be about \$210,000.

DISCONTINUING USE OF NORDENHAM, GERMANY, AS AMMUNITION PORT

At the time of our survey, DOD was using two ports in Europe for its ammunition distribution system. Most ammunition was processed through Zeebrugge, Belgium; but, Nordenham was used for shipments of classified ammunition. DOD regulations governing port selection precluded shipment of classified cargo through Zeebrugge.

Because Zeebrugge was the more cost-favorable port and because it offered opportunities for substantial savings in transportation and handling costs, we suggested that the Army make arrangements to provide security at Zeebrugge and to process all ammunition through the one port.

In October 1969 the Army started testing this procedure, and, effective January 31, 1971, all ammunition, including

classified and that of a sensitive nature, was to be processed through Zeebrugge. This action should shorten ship voyage time and should reduce port handling and inland transportation costs associated with shipping ammunition between the United States and Europe.

RENOVATING AMMUNITION IN VIETNAM

We observed that the Army and Air Force incurred additional transportation and handling costs by shipping unserviceable or possibly defective ammunition to offshore facilities for evaluation and renovation. We estimated that the Army incurred shipping costs of about \$2.5 million to transport such ammunition out of Vietnam during the 12-month period ended August 31, 1969. Because our survey was limited, we were unable to determine precisely the extent or magnitude of the Air Force retrograde activities. In contrast, the Marine Corps operated mobile ammunition reconditioning units in Vietnam providing renovation capability which substantially reduced the corps' need to ship unserviceable ammunition to offshore renovation facilities.

The policies and capabilities for evaluating and renovating unserviceable ammunition in Vietnam and the Far East have varied greatly among the military services. We found that the Army and Air Force did little more than clean and protect exterior surfaces and prepare ammunition for retrograde shipment without an adequate evaluation of renovation potential. In contrast, the Marine Corps, through its mobile unit at Da Nang and other forward areas, was effective in reducing transportation and handling costs associated with shipping unserviceable ammunition to offshore depots and to the United States for evaluation and renovation.

We concluded that there was need for a more uniform policy for all services to provide for maximum use of personnel and equipment for evaluating and renovating unserviceable, repairable ammunition within a theatre of operations. DOD agreed that it should conduct a systems study to evaluate the economy and operational feasibility of establishing in-country renovation capability for whatever theatre of operations that might be considered in its contingency planning. DOD has also initiated action to establish an in-country renovation capability for ammunition being supplied to South Vietnamese forces.

SHIPPING AMMUNITION DIRECTLY TO VIETNAM

Our survey showed that the Marine Corps could have reduced significantly its cost of transporting ammunition by shipping directly to units in Vietnam rather than through offshore depots. For example, we estimated that savings of at least \$4.4 million could have been achieved on ammunition items sent to Vietnam in fiscal year 1969 alone. The processing of ammunition through the offshore depots necessitated multiple handling and additional transportation costs.

Marine Corps officials told us that, consistent with the corps' concept of mobility, it had always supplied its forces through offshore depots and that the ammunition pipeline to Vietnam had been structured accordingly. We were told also that the system had been needed because of a lack of adequate storage facilities in the corps' combat sector. We were further informed that the corps had neither considered eliminating offshore depots from the pipeline nor had it evaluated the pipeline from a cost-effectiveness viewpoint.

Our review of the Marine Corps' ammunition storage areas in Vietnam did not support the contention that adequate storage facilities were lacking. We found that none of the corps' storage areas were filled to capacity. We found also that the corps' days-of-ammunition stockage objective was greater than that of Army units operating in the corps' tactical area, and yet the Army resupplied its stocks directly from the United States.

We were aware that the Marine Corps structured its Southeast Asia ammunition pipeline to provide mobility in support of its amphibious strike forces and that the offshore ammunition depots were necessary to this mission. However, the corps' mission in its tactical area in Vietnam was much the same as the Army's, which required a sustained logistics support. We believe that, in view of this mission, the corps should have restructured its ammunition pipeline and should have bypassed the offshore depots for replenishment ammunition shipments. This does not mean that ammunition would not be retained in the offshore depots to meet Corps and theatre command contingency and surge requirements but only that routine resupply activity would not automatically process through these points with associated transshipment and multiple handling costs.

In January 1971 the Army assumed responsibility for ammunition support of residual Marine forces in Vietnam, thereby eliminating the unnecessary costs which were incurred as a result of the structure of the Marine Corps' ammunition pipeline to Vietnam.

DOD officials told us that offshore reserve ammunition sites normally would not be used in the future for the temporary storage of operational stocks.

IMPROVING THE MANAGEMENT INFORMATION SYSTEM

One of the basic functions of MTMTS is to provide transportation officers with information on available carriers and rates so that they can select the most economical transportation mode to meet service requirements. MTMTS expends considerable effort maintaining, reviewing, and evaluating common carriers' tariffs and rate quotations which specify the rates, routes, and services each offers. Rate and route information is essential in determining the most economical shipping method.

We found, however, that MTMTS did not receive feedback concerning the bills submitted by the carriers for transportation services. MTMTS, therefore, had no way of knowing whether the rates it furnished to transportation officers as a basis for their management decisions were the same rates used by the carriers in billing the Government.

Carriers submit their bills to the appropriate finance centers for payment. But there was no procedure for these centers to provide MTMTS with information on the amounts actually billed by the carriers. With this data, MTMTS could compare the actual cost of a shipment with the estimated cost. In those cases in which variances existed, MTMTS could take the variances into consideration when rating and routing future similar shipments.

DOD agreed that a system for advising transportation officers of the difference between estimated and billed transportation costs would be desirable. A computerized system became operational in September 1971.

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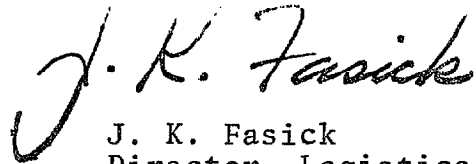
In addition to making these improvements, DOD has promised to study or initiate corrective measures in other problem areas. Accordingly, we plan no further reporting at this

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time. But we believe that DOD can use this information to help prevent these problems from recurring should the system once again be subjected to supporting a conflict similar to that in Vietnam.

We appreciate the cooperation we received from DOD during our survey, and we will be glad to further discuss our findings with you or other DOD officials.

Sincerely yours,

A handwritten signature in cursive script that reads "J. K. Fasick". The signature is written in dark ink and is positioned to the left of the typed name and title.

J. K. Fasick
Director, Logistics and
Communications Division

The Honorable
The Secretary of Defense