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

LOGISTICS AND COMMUNICATIONS
DIVISION

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The Honorable
The Secretary of Defense 5



Dear Mr. Secretary:

We reviewed how six Government depots in northern California shipped small supply parcels to military activities in the western Pacific area. Our purpose was to see if the depots shipped these parcels as economically as possible, considering delivery requirements.

We found that the six depots had mailed most small priority-1 and priority-2 parcels without regard to transportation costs. Many of these parcels could have been shipped through the Military Airlift Command (MAC) system at much less cost and could still have met delivery requirements.

DIRECTIVES NOT FOLLOWED IN SELECTING
MODE OF TRANSPORTATION

Department of Defense (DOD) directives provide that activities select the least expensive mode of transportation meeting delivery requirements. They must consider costs for transportation, processing Government bills of lading, documentation, and packing material and labor. Mailing small parcels is considered normal and desirable if they cannot be shipped by more economical means within the required delivery period.

We reviewed shipping records at six depots in northern California: the Defense Supply Agency Depot, Tracy; the General Services Administration Depot,¹ Stockton; the Naval Supply Center, Oakland; the Sacramento Air Materiel Area, McClellan Air Force Base; the Sacramento Army Base; and the

¹ The General Services Administration arranges transportation for large quantities of DOD cargo. 17

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Sharpe Army Depot, Lathrop. We found that none of the depots had made the required cost determinations and that they could not furnish us with the costs applicable to the various modes of transportation. The depots generally only insured that packages meeting postal criteria for size, weight, and acceptability of content were mailed.

SAVINGS BY USING THE MAC SYSTEM
MORE EXTENSIVELY

We compared the cost of using the MAC system with the cost of using mail service to deliver small parcels. The parcels' destinations--Guam, Japan, Korea, Okinawa, the Philippines, Taiwan, Thailand, and Vietnam--were all served by regularly scheduled MAC flights.

We found that, because of the U.S. Postal Service's rate structure, it was less costly to ship packages weighing less than 8 pounds by mail and less costly to ship packages weighing 8 pounds or more by the MAC system. Our analysis included the cost differences for handling, packing, documenting, transporting, and receiving shipments.

By determining break-even points (when the cost to ship a parcel by mail or by the MAC system is the same)¹ we estimated that the depots could have saved about \$900,000 in fiscal year 1972 if they had routed shipments weighing 8 pounds or more through the MAC system as freight instead of through the mail system.

Details of our computation follow. A table showing the number and total weight of parcels mailed to each destination and a discussion of the basis for each cost element are included as enclosures I and II, respectively.

¹Each destination had its own break-even point; however, to simplify our computations of savings, we used an average weight.

	<u>Quantity</u>	<u>Unit cost</u>	<u>Total</u>
----- (estimated) -----			
By mail:			
Depot processing	90,200 shipments	\$2.27	\$ 204,754
Transportation and handling to terminal	2,255,600 pounds	0.20	451,120
Overseas transportation	2,255,600 pounds	0.82	<u>1,849,592</u>
			<u>\$2,505,466</u>
By MAC system:			
Depot processing	90,200 shipments	\$5.20	\$ 469,040
Transportation to aerial port	2,255,600 pounds	0.03	67,668
MAC costs	2,255,600 pounds	0.43	969,908
Additional documentation overseas	90,200 shipments	0.97	87,494
Additional receiving costs	90,200 shipments	0.29	<u>26,158</u>
			<u>\$1,620,268</u>
Possible savings			\$ 885,198

The shippers had reservations about diverting these small parcels to the MAC system because of possible increased documentation costs. Freight shipments, irrespective of their size, must be documented, but parcel post shipments require only minimal documentation. Our estimates of the break-even points and the savings allow for these cost differences.

MAC SYSTEM GENERALLY AS RESPONSIVE
AS MAIL SYSTEM

The MAC system was generally as responsive as the mail system in delivering high-priority shipments to destinations in the western Pacific area within time frames established by the Uniform Military Movement and Issue Priority System. For example, Air Force records show that 79 percent of the 204 priority-1 packages mailed air parcel post during the months ended April 10 and June 10, 1972, from the Sacramento Air Materiel Area to requisitioners at the eight western Pacific

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destinations arrived on time. During the same period, 72 percent of the 285 priority-1 freight shipments arrived within allowable time frames.

Practically all the 327 Air Force priority-2 shipments made through the MAC system during the same period arrived on time. We could not make a comparison for mail and MAC priority-2 shipments because in-transit data was not maintained on priority-2 mail shipments.

The Army and Navy activities did not keep in-transit data on overseas shipments, so we could not make comparisons for them either.

MILITARY STUDY AGREES WITH OUR ANALYSIS

The Navy Area Audit Service stated that the Navy could save \$1 million a year if high-priority parcels mailed from the Naval Supply Center to four western Pacific destinations were diverted to the MAC system as freight. The Navy agreed in principle, and a test made by the Center confirmed the findings. However, the Center was not given the necessary funding and personnel to do the added handling and documentation work.

The Navy's calculations of savings are high compared with our estimates because it considered only costs affecting the Navy. Our estimates, however, considered systemwide cost differences.

AGENCY COMMENTS

We briefed DOD officials on our findings, and they generally agreed that greater use of the MAC system for small parcels would save money. They did, however, question the comparative responsiveness of the MAC and mail systems and the depots' processing costs we used in computing costs under the MAC system.

Air Force representatives agreed that the MAC system was generally as responsive as the mail system for the six depots we reviewed. However, they questioned whether the MAC system was as responsive as the mail system for other depots.

We pointed out that personnel at most depots covered by our survey estimated their processing costs to be lower than the figure we used. DOD officials could not offer more reliable data.

RECOMMENDATIONS

We recommend that DOD instruct its supply activities and urge the General Services Administration to ship priority-1 and priority-2 parcels to overseas military activities through the MAC system when it is less costly to do so. Consistent with service requirements, DOD should require all major shipping activities to make break-even analyses and should establish break-even points for shipments to overseas activities.

We would appreciate receiving your comments and being advised of any corrective actions being taken or planned. We will be glad to discuss these matters in greater detail with you or your representatives.

(1-2) We are sending copies of this report to the House and Senate Committees on Appropriations and on Government Operations. We are also sending copies to the Director, Office of Management and Budget; the Administrator, General Services Administration; the Director, Defense Supply Agency; and the Secretaries of the Army, Navy, and Air Force. H 200 S 1500

Sincerely yours,


J. K. Fasick
Director

Enclosures - 2

ESTIMATED ANNUAL VOLUME OF PARCELS

(8 POUNDS AND MORE)

SHIPPED FROM THE SIX DEPOTS

<u>Destination</u>	<u>By air</u>		<u>By military</u>		<u>Total</u>	
	<u>Pounds</u>	<u>Parcels</u>	<u>Pounds</u>	<u>Parcels</u>	<u>Pounds</u>	<u>Parcels</u>
	(thousands)					
Guam	18.3	0.9	107.2	4.1	125.5	5.0
Japan	26.9	1.3	101.9	3.9	128.8	5.2
Korea	37.8	1.8	73.1	2.8	110.9	4.6
Okinawa	23.7	1.1	108.8	4.2	132.5	5.3
Philippines	19.2	0.9	474.4	18.1	493.6	19.0
Taiwan	4.8	0.2	30.8	1.2	35.6	1.4
Thailand	129.3	6.3	644.5	24.7	773.8	31.0
Vietnam	<u>135.1</u>	<u>6.5</u>	<u>319.8</u>	<u>12.2</u>	<u>454.9</u>	<u>18.7</u>
Total	<u>395.1</u>	<u>19.0</u>	<u>1,860.5</u>	<u>71.2</u>	<u>2,255.6</u>	<u>90.2</u>

COST ELEMENTS CONSIDERED IN COMPARING
COST BY MAIL AND BY MAC SYSTEM

We considered the following elements in computing the cost to send parcels through the MAC system.

- Depot processing costs.
- Transportation to MAC terminal.
- MAC reimbursement for overseas shipment.
- Documentation cost at overseas aerial port.
- Receiving cost of addressee.

Our analysis of the cost to mail parcels by air parcel post or by military official mail included the following elements.

- Depot processing cost.
- Mailing cost to the military mail terminal.
- Transportation cost to overseas areas.

COSTS FOR USING THE MAC SYSTEM

The Naval Supply Center compared depot processing costs for mail and MAC shipments in December 1970 and January 1971. The Center found that the average cost was \$5.20 to process a parcel diverted from the mail system to the MAC system. We used this value in our computation because the activities we visited were unable to furnish us with more reliable data.

We used \$0.03 a pound as the cost to transport parcels from the depots to the respective aerial ports on the west coast. This cost was based on depots' costs shown on Government bills of lading.

We estimated a weighted, average MAC rate for all eight destinations on the basis of the estimated volume of air parcel post and military official mail packages which could be diverted to the MAC system and the corresponding MAC cargo reimbursement rate for such destinations. The average rate was \$0.43 a pound.

We used \$0.97 a parcel as the cost to cover documentation at the overseas MAC terminal. This cost corresponds to the Center's test cost.

We used \$0.29 for a parcel as the cost for added receiving work. We computed this value from the engineered cost standard for this function at one of the depots we visited.

COSTS CONSIDERED FOR PARCEL POST SHIPMENTS

On the basis of information obtained from the six depots, processing costs for mail parcels are less than for MAC parcels. During the Center's test, the average cost to process a mailed package was \$2.27. We used this cost in our computations.

We used \$0.20 a pound as the cost for mailing parcels from the depots by military official mail and by air parcel post to the terminal in San Francisco. This cost is based on postal rates in effect in May 1972, and it is weighted for the two types of parcels.

We used published mail rates to obtain the transport costs from San Francisco to the eight overseas destinations. We estimated a weighted average of \$0.82 a pound to cover this cost.

We assumed that transportation costs from the overseas terminal to the final destination were equal for mail and MAC shipments. Our work in Thailand showed that the transportation means for MAC and mail parcels were frequently the same.