

~~25303~~  
121513

---

BY THE U.S. GENERAL ACCOUNTING OFFICE

## Report To The Secretary Of Defense

---

# Questionable Practices In The Selection Of Transportation Services For Small Lots Of Hazardous Or Sensitive Cargo

The Department of Defense spends several million dollars a year to transport small lots of hazardous or sensitive cargo. Truck and air taxi operators actively compete for this cargo.

Despite the similarities in the truck and air taxi prices and service, DOD routed far more cargo to trucks than to air taxis. Also, more business was routed to one air taxi than to the others. Consequently, DOD lost opportunities to purchase the least cost, best service available.

The problems resulted because routing technicians did not have the data they needed, did not use all the data available, or ignored certain criteria established for selecting the mode and carrier to be used.



GAO/PLRD-83-70  
MAY 31, 1983

025741

**Request for copies of GAO reports should be sent to:**

**U.S. General Accounting Office  
Document Handling and Information  
Services Facility  
P.O. Box 6015  
Gaithersburg, Md. 20760**

**Telephone (202) 275-6241**

**The first five copies of individual reports are free of charge. Additional copies of bound audit reports are \$3.25 each. Additional copies of unbound report (i.e., letter reports) and most other publications are \$1.00 each. There will be a 25% discount on all orders for 100 or more copies mailed to a single address. Sales orders must be prepaid on a cash, check, or money order basis. Check should be made out to the "Superintendent of Documents".**



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

PROCUREMENT, LOGISTICS,  
AND READINESS DIVISION

B-211456

The Honorable Caspar W. Weinberger  
The Secretary of Defense

Attention: Office of GAO Report Analysis

Dear Mr. Secretary:

At the request of Senator Howard Baker, we reviewed Department of Defense (DOD) policies and practices for procuring commercial transportation service for small lots of hazardous or sensitive cargo. Senator Baker had received a complaint from a constituent--an air taxi operator--who had been having problems in obtaining DOD business. The constituent believed there were inequities in the manner in which the Army's Military Traffic Management Command (MTMC) was routing this type of cargo.

When we briefed Senator Baker's staff on our preliminary findings, we advised his staff there were other aspects of the management of hazardous or sensitive cargo that we believed should be investigated further and brought to your attention.

We found a number of problem areas in the management of small lot shipments of hazardous and sensitive cargo that resulted in excess transportation costs and lost opportunities to use the best possible transportation services. For example, we found:

- Most of the cargo had been routed to truck companies, although air taxi rates and service were competitive with truck rates and services.
- A specific air taxi operator received a greater portion of the traffic than another operator who was in a position to compete effectively.
- MTMC routing officials had not followed DOD policies and criteria on routing.
- DOD's overall and specific cargo shipping requirements, such as the location of the traffic and its pickup and transit needs, were not being adequately transmitted to companies wishing to compete for DOD business.

We discuss a number of actions on pages 15 and 16 that we believe should be taken to improve DOD's management of this type

of freight. Basically, these call for MTMC to take certain steps to more fully comply with longstanding DOD policy on how to distribute cargo fairly among competing modes and carriers and to more clearly make known to all interested carriers what the DOD shipping requirements are for this type of cargo. We recommend that you direct MTMC to

- compile, maintain, and use information related to installation shipping and receiving capability and to carrier performance that will ensure equitable consideration of both air taxi and truck carrier services in the routing of small lots of hazardous or sensitive cargo;
- routinely make cost and other types of comparative analyses of both air taxi and truck service when routing small lots of hazardous or sensitive cargo;
- enhance competition between air taxi operators and truck carriers by regularly disclosing to them the opportunities for them to participate in the business; and
- ensure sufficient records are maintained to demonstrate to interested parties, such as carriers, that equitable cargo distribution policies are being followed.

Details of our findings, conclusions, and recommendations are included as appendix I to this letter. DOD, in commenting on our draft report, generally agreed with our recommendations and indicated that appropriate corrective actions had been initiated. However, DOD disagreed with some of our findings and conclusions. (See pages 16 through 20 for a synopsis of DOD comments and our evaluation of the major points of disagreement.) The major areas of disagreement were that:

- The statistics showing that more cargo moved by truck indicated MTMC favored trucks.
- The statistics showing that more cargo moved by one air taxi than another accurately reflected the entire year's activity.
- The MTMC routing officials had failed to follow routing criteria to the extent we reported.
- MTMC's questionable practices had resulted in excess costs or in the procurement of a poorer service than otherwise available.

As you know, 31 U.S.C. § 720 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to Senator Howard Baker; the Director, Office of Management and Budget; the Chairmen, House Committee on Government Operations, Senate Committee on Governmental Affairs, and House and Senate Committees on Appropriations and on Armed Services; the Secretaries of the Army, Navy, and Air Force; and the Commander, Military Traffic Management Command. As agreed with Senator Baker's office, we are also sending copies to Senators Paula Hawkins and Lawton Chiles and Congressmen Bill McCollum and C. W. Bill Young.

Sincerely yours,



Donald J. Horan  
Director



QUESTIONABLE PRACTICES IN THE SELECTION  
OF TRANSPORTATION SERVICES FOR  
SMALL LOTS OF HAZARDOUS OR SENSITIVE CARGO

TRAFFIC MANAGEMENT RESPONSIBILITIES  
AND POLICIES

MTMC--a jointly staffed, major field command of the Army--is responsible for the management of all DOD cargo needing commercial for-hire transportation service within the continental United States. It negotiates freight rates with ratemaking bureaus and individual carriers, maintains DOD master carrier freight tariff and rate schedule files, routes all of the larger or higher cost shipments, and serves as the intermediary between local installation officers and the carrier industry on matters dealing with adequacy of carrier performance.

A small lot, as referred to in this report, is any shipment weighing less than 1,000 pounds. Hazardous or sensitive cargo is material designated by DOD as requiring some measure of protective service during transit. It requires an extremely high cost type of transportation. A typical shipment weighs 350 pounds and costs about \$700, or about \$200 a hundredweight, to transport.

MTMC routes most small lots of hazardous or sensitive materials through a small group of trucking companies and air taxi operators who offer special protective services. Most of the trucking companies transport the shipments in specially designated containers, called "dromedaries," which are independently mounted behind the power unit of a tractor/trailer combination vehicle. The air taxis use various types of small multi-engine aircraft piloted by two-member crews.

The basic DOD policy in routing cargo to commercial carriers is that the means of transportation selected will be the one that meets DOD requirements satisfactorily at the lowest overall cost, from origin to final known destination. In choosing the carrier for a specific shipment when two or more modes of transportation or individual carriers within a mode are competitive, the principal factors for consideration (in their order of importance) are (1) satisfactory service, (2) aggregate delivered cost, (3) least fuel-consumptive carrier/mode, and (4) equitable distribution of cargo.

Ultimately, MTMC can determine whether the local base transportation offices followed its advice by reviewing the paid bills of lading. DOD central payment centers provide MTMC with automated data on each paid bill of lading. In addition, MTMC can review the correctness of the carriers' charges from this

data, although the responsibility for auditing bills of lading rests with the General Services Administration.

#### OBJECTIVES, SCOPE, AND METHODOLOGY

Senator Baker asked us to review several concerns a constituent was having in attempting to do business with DOD. The constituent questioned MTMC practices in distributing shipments of small lots of hazardous or sensitive materials among the modes and carriers competing for this type of cargo. He said he had brought these matters to MTMC's attention on several occasions, but believed he was not receiving satisfactory consideration.

After a preliminary investigation, we concluded the constituent's concerns were warranted, and we decided to look at DOD policies and practices in some depth. Our objectives were to

- review the practices of installation transportation officers, MTMC, and various types of carriers in handling the transportation of small lots of hazardous or sensitive materials and
- determine whether MTMC was following prescribed DOD policies and procedures for routing small lots of hazardous or sensitive materials.

We obtained routing, shipment, and payment data from DOD; discussed various policy, operational, and quality assurance matters with DOD officials; and reviewed pertinent and related matters with the complainant and his chief air taxi competitor.

Onsite discussions were held with officials at

- Headquarters, MTMC, Falls Church, Virginia;
- MTMC area routing offices at Bayonne, New Jersey, and Oakland, California;
- Naval Ordnance Station, Indian Head, Maryland;
- Anniston Army Depot, Alabama;
- Redstone Arsenal, Alabama;
- Red River Army Depot, Texas; and
- Hill Air Force Base, Utah.

We also contacted a number of other installation transportation officials by telephone to obtain their views on routing practices and carrier services.

We reviewed a sample of routing requests, MTMC technicians' routing worksheets and route releases and data representing all



paid bills of lading for October, November, and December 1981 for small lot hazardous or sensitive cargo; analyzed routing logs; and examined various carriers' tariffs and tenders.

Our review was performed in accordance with generally accepted government auditing standards.

DISTRIBUTION OF CARGO FAVORED  
TRUCKS AND A PARTICULAR AIR TAXI

Although air taxi service and rates were competitive with those of trucking companies for a major portion of the small lots of hazardous and sensitive material, the distribution of cargo between trucks and air taxis heavily favored trucks over air taxis. Also, even though the two principal air taxi operators were competing directly with each other, one air taxi operator received far more cargo than the other.

Statistics show trucking  
companies favored

Trucking companies and air taxi operators offered services and rates that were highly competitive. However, DOD has distributed relatively little of this cargo to the air taxi operators. For example, for the 3-month period ended December 31, 1981, trucking companies received roughly 84 percent of the cargo and air taxi operators received 16 percent.

DOD payment center bill of lading records for October through December 1981 showed the Army, Navy, Air Force, and Marine Corps shipped 1,340 small lots of hazardous or sensitive cargo during the late summer and the early fall of 1981. A small lot was identified as any shipment of ammunition, explosives, ordnance, or weapons weighing less than 1,000 pounds and having paid freight charges of more than \$300.

Three trucking companies that offered 48-State service intended for small lot hazardous and sensitive cargo transported about 85 percent of DOD's surface shipments. Two air taxi operators that offered rates and service directly competitive with these three trucking companies transported nearly all DOD's air taxi shipments.

Despite the competitive nature of the air taxis' service and cost, MTMC routed few of the shipments to the two air taxi operators. Of the 1,340 shipments, 215 were shipped by air taxis.

There were 161 installations that made small lot shipments, but few used air taxi. In MTMC's eastern area routing territory, only 34 of 105 installations making such shipments used air taxis. In MTMC's western area routing territory, only 3 of

56 installations used air taxis. In the eastern area only 21 percent of the shipments were made by air taxis; in the western area, only 3 percent were made by air taxis. This modal distribution of traffic is shown in appendix II.

Nineteen installations made 70 percent of the small lot shipments, but used air taxi operators for less than 20 percent of these shipments. Of those 19 installations, only 11 used any air taxi service. Appendix III shows the largest shippers' modal distribution of cargo.

A particular air taxi operator  
appears to have been favored

During the period covered by our review, two air taxi operators competed head-to-head for DOD's small lots of hazardous and sensitive cargo. Our analysis of the shipped cargo showed one operator was favored over the other, both in total cargo and in the more lucrative (higher revenue-generating) cargo.

Air taxi operators are generally small businesses that operate a fleet of smaller-type passenger and cargo aircraft in a for-hire, on-demand service anywhere in the country. According to the Civil Aeronautics Board, which registers air taxis, there are about 4,000 to 6,000 air taxi operators in business.

About 14 operators requested and received from the Federal Aviation Administration special authority to carry hazardous materials in small all-cargo aircraft. Two of these operators--Express Airways, Inc., Sanford, Florida; and Starflight, Inc., Smyrna, Tennessee--have actively solicited business from DOD, and over the last few years, they have been the primary recipients of DOD business.

These two air taxi operators have filed an almost identical series of offers and set of rates to attract DOD business. Yet, MTMC paid bills of lading for the 3-month period ended December 1981 showed that Express received more than twice the number of shipments than its competitor. Most of these shipments were routed through the MTMC eastern area routing office. We also found that during the 12-month period ended August 31, 1982, Express received nearly 20 percent more shipments than Starflight. Express was routed nearly four times the number of weapon shipments and all of the priority shipments, both the more lucrative types of business. A more detailed listing of the division of cargo is shown in appendix IV.

TRAFFIC IMBALANCE CAUSED BY  
MTMC ROUTING TECHNICIANS NOT  
FOLLOWING ROUTING CRITERIA

We found that MTMC routing technicians often did not have all the data they needed to analyze each criterion, did not use all the data they had, or ignored certain criteria altogether. Specifically, they had not

- adequately considered each mode's ability to provide a through service;
- attempted to have shippers adjust the packaging to fit the lowest cost mode;
- forced transportation officers to consider the benefits of trade-offs between delayed pickup and ontime delivery;
- used past performance data;
- considered air taxis' other levels of service;
- given local transportation officials opportunities to make their own decisions on mode and carrier, with MTMC's advice;
- made cost comparisons in each instance;
- given adequate consideration to fuel conservation advantages of each competitive mode and carrier;
- kept adequate controls over the receipt and use of rate schedules; and
- maintained cargo distribution records.

Had the technicians taken the above actions, they would have obtained as good, if not better, service at a lower cost, or at least been in a position to obtain better service at a lower cost. Also, they would have been able to demonstrate to any interested carrier that their patterns of distribution among modes and carriers were equitable.

Basic DOD policy on mode  
and carrier selection

As stated previously, DOD policy is to always select the means that will meet the requirement at the lowest overall cost (from origin to final known destination). This includes considering savings by expediting shipment and thereby cutting down on inventory, by reducing shipment preparation costs, by minimizing loss and damage, and by consolidating shipments.

The routing criteria stated in MTMC regulations are service, cost, and fuel conservation advantages. When all of these criteria are equal, distribution is to be equitable among carriers.

Service given little consideration in deciding between trucks and air taxis

Service is the most important criterion that shipping activities and MTMC routing officials are required to consider in deciding on a mode and carrier for transporting shipments. However, we found that MTMC routing officials gave service little consideration. It was either ignored or used inconsistently in the comparison process. Because all service aspects were never considered and all requirements were never validated, competition among modes and carriers rarely existed. As a result, DOD lost opportunities to buy better service at a lower cost.

Consideration of each mode's ability to provide a through service was often short-sighted

One of the primary reasons why air taxi service was at a competitive disadvantage to trucks was the routing technicians' perception that air taxis could not provide a through service similar to trucks. This perception was heightened by the fact the services' Terminal Facilities Guides, the primary source of transportation facility information, rarely showed information about airfields capable of receiving air taxi type aircraft.

One of the main purposes of the Terminal Facilities Guides is to show the facilities at each installation for handling cargo via different modes of transportation. A specific section is set aside to describe airport or airfield facilities, and another section is intended to describe ammunition and explosives handling facilities.

In most cases, information about airfields available to handle air taxi operations and facilities available to handle ammunition or explosives by air taxi was not shown. Yet we found that each military installation had some airfield that regardless of how close it was located to the installation, which in combination with some commercial or motor pool operation, could have handled any air taxi operator and hazardous shipment.

Because this information was often not included in the guides, MTMC routing technicians relied on incomplete information and often dismissed air taxi service from any further consideration. Had this information been available, air taxi service could have been more properly compared with truck service.

Eight of the 19 largest shippers of small lots of hazardous materials made no use of air taxi service during the period covered in our review. These were

- Letterkenny Army Depot, Pennsylvania,
- Lone Star Army Ammunition Plant, Texas,
- Seneca Army Depot, New York,
- Dover Air Force Base, Delaware,
- Sierra Army Depot, California,
- Hawthorne Army Ammunition Plant, Nevada,
- Tooele Army Depot, Utah, and
- Navajo Army Depot Activity, Arizona.

The Terminal Facilities Guides listing for each of these locations had little or no information about airfields capable of receiving air taxi shipment or facilities capable of handling hazardous materials by air. Many other shipping installations' listings were similarly deficient.

Choice of packaging often  
unnecessarily precluded  
consideration of air taxi  
service

Another factor that worked to the air taxis' disadvantage was the choice of packaging for shipments. When shipments were palletized, the air taxis' prices were higher than the lowest minimum weight truck prices; yet, the need for palletization was often highly questionable.

From our sample of 23 shipments, we identified 5 shipments that had been routed by truck because they were palletized. In each case we found little reason why the shipment had to be palletized. In one case, the cargo weighed 88 pounds, but the pallet weighed 90 pounds itself. In another case, the palletized shipment weighed 438 pounds, 86 pounds of which was pallet weight. The cargo itself was in eight individual boxes weighing a little over 40 pounds apiece.

In every case it appeared to us the cargo could easily have been handled by the air taxi operators without the pallet attached. Had the local shipping officials been advised of the opportunities for savings through use of air taxi service, they could have saved from 6 to 35 percent in direct transportation costs.

Overall delivery time secondary  
to ontime pickup

Another factor that worked to the disadvantage of the air taxis was MTMC's, and most local installation shipping officials', great concern for quick pickup service. The ability of a carrier, regardless of when it picked up the shipment, to provide delivery in the desired timeframe carried little weight. Because truck companies operated more equipment and more terminals than their air taxi competitors, they could generally provide faster pickup service. Yet speedy pickup service itself was not an accurate measure of a carrier's ability to meet the overall delivery requirement. More important was the carrier's ability to make ontime delivery.

Shipping officials told us that they measured carrier timeliness by the pickup time, or the time it took a carrier to pickup the shipment once the carrier had been contacted. Several shipping officials indicated that pickup time was also the primary standard by which their commanding officers measured responsiveness. Consequently, shipping officials favored any carrier that met their quick pickup service needs. Although most officials said they were concerned with overall transit time, few actually kept track of the times or cared if the fast pickup carriers took longer than what another carrier providing slower pickup might have taken.

Past performance data was  
generally unavailable

Neither of MTMC area routing offices were making routing choices based on a thorough analysis of the prospective carriers' past performances on such matters as transit times, loss and damage experiences, or overcharge ratio. These were important service considerations and would have assisted the routing officials in differentiating between the service of one mode from another or one carrier from another.

Transit time information is routinely captured under DOD's Military Supply and Transportation Evaluation Procedure System. Loss and damage experience is maintained by DOD central claims handling centers. Overcharge information is available from the General Services Administration. MTMC also keeps track of potential overcharges through its variance program, which compares estimated charges with actual expenses.

Past performance information could have been maintained by MTMC area routing offices but it was not. Such information, had it been used, would have served as a useful tool for measuring carrier service.

Air taxi "regular air service"  
never considered

Throughout our review of the MTMC area routing technicians' decisionmaking process, we did not find that the technicians ever considered the availability of "regular air service," nor did we find reasons for them not considering it. This service is competitive in terms of cost and service with the "exclusive use of truck" service of most of the trucking companies.

Regular air service was intended to cover some of the more urgent types of cargo and those commodities excluded from the terms of the carriers' "deferred air service" tenders. Deferred air service was not applicable to certain types of explosives, detonating fuses, and magnetic material and to shipments exceeding 450 (later revised to 630) pounds and was generally limited to the geographical territory between the 42nd (now the 44th) and 28th parallels. It allowed the operator to delay or defer pickup up to 72 hours. On the other hand, regular air service covered all shipments, had a higher weight limitation (2,200 pounds), covered the entire continental United States, and did not require or allow a 72-hour deferred pickup. Its cost and service were highly competitive with that of the 5,000 pounds minimum "exclusive use" rates of trucks.

Opportunities for local shipping  
office decisionmaking were generally  
restricted

MTMC routing officials are primarily responsible for deciding the mode and carrier to be used in routing small lots of hazardous and sensitive materials. In implementing this responsibility, the routing officials seldom advised the local shipping officials of the possible alternative modes and carriers that they could have used to meet their particular needs. Had such opportunities been given, local officials would have been able to avail themselves of services they were not aware that existed and to make "real-time" trade-offs between cost and service.

One of the more difficult problems with analyzing carrier services was determining whether the carrier could perform as its offer of service indicated. MTMC generally did not know if any particular carrier could provide the needed equipment at the shipping location and make delivery ontime until the local installation transportation officer actually contacted the carrier. In many cases, however, the local official had no opportunity to compare carrier services because MTMC gave the official the name of only one carrier. In rare cases did the local official have a choice of modes or carriers and the opportunity to weigh the differences in cost and service between truck and air taxi service and between carriers in the same mode. As

a result, the local official's ability to make valid real-time cost and service analyses was lost. Also, since so few shipments were originally routed to the air taxis, these operators' abilities to have their services made known to the local officials were severely restricted.

Cost comparisons either not made or incomplete

The second most important factor in DOD's mode and carrier selection criteria was cost. MTMC traffic management regulations provided:

"When more than one mode, or more than one carrier within a mode, can provide the required service, the mode or carrier(s) that will provide the lowest aggregate delivered cost will be selected. When comparing aggregate delivered costs, consideration will be given to all factors which add workload or costs to the shipping or receiving activity. In addition to the actual transportation rates and charges, other cost factors, such as blocking, bracing, dunnage, loading, unloading, drayage, and labor, should be considered where these items affect overall costs. The basis for such costs will be substantiated and maintained as a matter of record."

In our review of routing worksheets and orders, we found few examples, except on shipments routed to air taxis, where MTMC routing technicians actually prepared truck versus air taxi cost comparisons. Moreover, even when comparisons were made, there were few cases where the aggregate delivered cost (line haul costs plus costs for services as additional packaging or local drayage that were needed to make a shipment ready for the mode selected) was used in the overall cost comparisons.

Our comparative analysis of truck and air taxi rates indicated that air taxi charges were almost always less than truck charges when deferred air service or weapons air service was compared with dromedary service chargeable at the generally required minimum weight of 2,500 pounds. At the lower weight brackets for distances roughly up to 1,500 miles, air taxi charges for regular air service were always less than exclusive use of a dromedary at the sometimes required minimum weight of 5,000 pounds. Some examples of comparative shipment costs are shown in the following chart.



Shipment Cost Comparisons

<u>Origin-destination (surface/air miles)</u>	<u>Truck 2,500 lb. charge</u>	<u>Air taxi (deferred)</u>	<u>Truck 5,000 lb. charge</u>	<u>Air taxi (regular)</u>
Louisville - Memphis (396/320)	\$ 456	\$ 364	\$ 912	\$ 464
Phoenix - Salt Lake City (651/504)	610	457	1,221	706
Birmingham - Dallas (653-591)	610	475	1,221	813
Salt Lake City - San Francisco (754/600)	658	475	1,315	840
Washington, D.C. - Birmingham (751/661)	658	533	1,315	925
Memphis - Philadelphia (1,045/881)	757	611	1,514	1,189
Dallas - Los Angeles (1,425/1,240)	840	704	1,681	1,612
Los Angeles - Louisville (2,128/1,829)	988	854	1,995	2,377
Philadelphia - Phoenix (2,360/2,083)	1,078	912	2,157	2,708
San Francisco - Washington, D.C. (2,864/2,442)	\$1,236	\$1,013	\$2,471	\$3,175

These comparisons show line haul costs only. We recognize that other costs needed to make the shipment ready for the mode selected had to be added to the line haul costs to get a true cost picture. For example, air taxi shipments often had to be transported by base or post motor pool trucks at Government expense to off-base airports. Truck shipments often required extra packing, palletization, blocking, and bracing, all at Government expense, before they could be shipped. Yet we found that MTMC seldom considered these costs in its cost comparisons.

Modal and carrier fuel conservation advantages seldom considered

The third criterion in traffic distribution was supposed to be an analysis of the fuel conservation advantages of each mode and carrier offering competitive services and costs. We found that MTMC routing technicians seldom considered this criterion. MTMC regulations provided that:

"In determining the least fuel-consumptive carrier/mode, consideration will be given to such factors as use of carrier's equipment in 'turn around' service, proximity of carrier's equipment to the shipping activity, and ability of carriers to provide the most direct service to CONUS destination."

We found few cases where MTMC routed cargo in "turn around," or round trip service, even though ample opportunities existed. Most shipments were routed as separate, or one way, shipments and were not considered as possible return movements. The problem was further compounded by the fact that there was no communication between the two MTMC routing area offices about the possibility of return trips. In most cases, carriers were given shipments into a different area and forced to return to their home bases empty. For example, the MTMC eastern area routing office might have routed a shipment from Maryland to California without informing the western area office so that it could arrange a return to the eastern area, thereby allowing the carrier to make more efficient use of its fuel in carrying DOD cargo.

We also found few instances where the proximity of carriers' equipment to a shipping activity or the ability of a carrier to provide a more direct service influenced a routing decision at the MTMC routing area level.

We found no analyses to show one mode or one carrier could be given a preference because its equipment was more fuel efficient. MTMC officials admitted that they did not have the qualifications to make this type of analysis.

### Improper filing and receipt of carriers' rate schedules

It was the policy of MTMC that for any carrier's schedule of rates to be considered for routing at its area routing offices, the rates had to be filed with the appropriate transportation regulating agency, in the case of published tariffs, or with Headquarters, MTMC, if a special rate quotation was offered for DOD or Government traffic. Because this procedure was not followed in one instance, one air taxi operator received all the routings for a particular type of traffic for several months. Since the competing air taxi operator could not review the rate schedule in the public file, it had no idea it was not competitive.

This situation involved the shipment of weapons. In July 1981 MTMC headquarters officials advised the two air taxi operators they should cancel their special weapons rate schedules because of the availability of several other similar rate schedules. Both operators complied. However, Express Airways managed to have the MTMC eastern area office use an alternative schedule of rates, referred to as a tariff, which had not been filed with headquarters or any regulatory commission. Records show that until MTMC headquarters officials requested that the schedule of rates not be used, Express received more than 50 routings without any competition from the other air taxi operator.

Several other rate schedules were also filed and used outside the proper channels. Although there was apparently no additional costs paid under the improperly filed schedules, the rules of filing schedules of rates were violated and cargo was not equitably distributed.

### Cargo distribution records were not maintained

Although MTMC routed all the small lots of hazardous and sensitive materials, it did not keep records on how the cargo was distributed between modes or among carriers. The only records MTMC kept on this cargo were logs of air taxi routings made at its eastern routing office. Had complete records been kept, cargo imbalances would have become readily apparent and corrective actions could have been taken quickly. Also, without this information, it is nearly impossible to make a responsive comment about the equity in the current distribution of cargo between trucks and air taxis.

### SHIPPING REQUIREMENTS NEED TO BE BETTER ADVERTISED

For the most part, DOD has made little effort to disclose where the small lots of hazardous or sensitive materials are located and what their specific requirements are. Air taxi

operators have been seeking this information for a number of years, but with few results. Many of their complaints have focused on the fact that they used to get cargo from certain locations but that they no longer do. Also, air taxi operators believe there are locations for which their offers of services are not being considered and they are not being advised as to precisely what services are being requested.

To assist freight carriers in obtaining DOD business, MTMC prepared a brochure entitled "How To Do Business With The DOD." The brochure advises the carriers of the several sources of information for locating DOD cargo. Many DOD volume movements are advertised weekly in the Commerce Business Daily. Standing route orders (routing instructions already in effect) are also available at MTMC routing offices. Installation transportation officers also are instructed to provide information on shipments they route. The problems, however, are that none of these sources cover the small lots of hazardous or sensitive materials and no office routinely collects and maintains such information. Consequently, air taxi operators have no place to go to find out about past or future shipments of this cargo.

The business the air taxis are competing for is different from much of the other traffic DOD moves in that all of it is routed by MTMC area commands. Other types of cargo are typically routed in substantial proportions by local installation transportation offices where carriers can actively solicit business. Only the larger or most expensive shipments are usually routed by MTMC area commands, and such shipments are sometimes of sufficient volume to justify advertising it in the Commerce Business Daily. Small lot cargo, however, is not what MTMC considers of sufficient volume to advertise in the Commerce Business Daily. Consequently, for any interested carrier to obtain the cargo, it must submit a rate schedule that blankets all the requirement possibilities and then hope the routing technicians give that schedule favorable consideration. The carrier, however, usually has no opportunity to verify that consideration was given to its offer, unless it receives the shipment, because there are few records that show how cargo was routed. What often results, which was the case with the air taxi operator complaining to Senator Baker, is a continuing dialogue between MTMC and carriers raising suspicions about the fairness of MTMC's pattern of distribution.

There is much to be gained by MTMC's making greater effort to disclose what the small lot hazardous or sensitive material cargo requirements are and where the cargo is located. More information about the requirements should lead to greater competition among carriers. This, in turn, should lead to opportunities for lower shipping costs and better service.

The specific information DOD needs to disclose is

- location of the cargo;
- disability costs (extra costs necessary when a particular mode is used) at each location;
- hazardous classifications of the cargo, including compatibility with other potential cargo;
- anticipated shipments for a given period;
- frequency of shipments;
- average shipment size; and
- required pickup and delivery time standards.

Actions needed to improve  
mode and carrier selection  
process and demonstrate fairness

We believe there are a number of actions that MTMC should take to improve its selection process and to demonstrate its fairness in distributing this cargo between the trucking and air taxi operators. MTMC should

- require local installation transportation officials to include in their Terminal Facilities Guides listing complete information on how air taxi shipments can be handled, including airfield information and procedures for handling hazardous or sensitive materials by air;
- require local installation transportation officers to develop and furnish to both MTMC area routing offices the costs to make a shipment ready for transporting by both truck and air taxi; and
- maintain data on carrier transit time performance, loss and damage experience, and overcharge history.

We also believe MTMC should begin making certain types of analyses to reduce costs. These analyses involve

- considering alternative methods of packaging, specifically the elimination of palletization when nonpalletization would permit consideration of lesser cost transportation, and then advising all installation transportation offices of those possibilities;
- comparing all the different levels of carrier service before choosing one mode or one carrier over another;

- making modal and carrier cost comparisons on all shipments in which competitive service is offered;
- routinely considering "return hauls," proximity of a carrier to origin and destination, and ability of carriers to provide the most direct service in the routing decision process; and
- giving local installation transportation officials alternative modes, carriers, and levels of service for each small lot hazardous or sensitive shipment so that the officials can make the ultimate choice of carrier based on present situations.

MTMC needs to enhance the potential for competition among modes and carriers and to establish procedures to prevent improper submission of tenders of service. MTMC also needs to maintain visibility over the actions of its routing technicians. Therefore, we believe MTMC should

- disclose to all interested carriers where and what opportunities exist on small lot hazardous or sensitive cargo,
- actively solicit tenders of service for this type of cargo,
- ensure procedures prevent filing of rate schedules outside normal channels,
- maintain and regularly review logs that show each routing technician's pattern of cargo distribution, and
- maintain and review the records of each routing office's pattern of cargo distribution.

#### AGENCY COMMENTS AND OUR EVALUATION

DOD, in commenting on our draft report, generally agreed with all four of our recommendations. It agreed there were problems (1) in recording how cargo was being distributed, (2) in controlling the receipt of tenders, and (3) in making sure the prospective air taxi operators understand DOD requirements. These problems, DOD said, are or would be taken care of in the future. Additional information is being requested and will be made available to the routing technicians. New instructions are being written to record cargo distribution and the regulations governing receipt of tenders are being reviewed and revised as needed. Plans are also being made to meet with the air taxi operators to assist them in understanding DOD requirements. However, DOD did not totally agree that our findings are correct as stated in the report. A discussion of each point and our rebuttal follows.

Implication that statistics  
demonstrated favoritism toward  
trucks

DOD officials did not dispute the fact that during the period we reviewed a greater portion of the cargo had been routed by truck. They questioned, however, that this demonstrated they had favored trucks at the expense of air taxis. They cited various factors that they believed we had failed to give adequate consideration to. These included (1) certain commodities shipped by truck could not have been shipped at the air taxis' lowest tender rates, (2) shipment size, (3) priority and disability cost problems, and (4) a lack of cleared airfields available for use of air taxis at some military installations.

We agree that statistics alone do not prove favoritism. The fact that 84 percent of the shipments moved by truck and only 16 percent moved by air taxi could have been caused by the factors DOD cited. However, documentation maintained at the routing offices failed to show this.

At the start of our review, there were no written procedures as to how modal comparisons were to be made. During our review, the MTMC eastern area routing office wrote an operating procedure for use of air taxis. The procedure, however, did not explain how the various modal peculiarities and shipping requirements were to be considered.

No records were maintained to show that any of the considerations DOD cited were actually factors in the choice of trucks. Furthermore, there was no indication why these considerations had not been documented.

Some of the truck shipments consisted of denotating fuses or items that had been palletized and were, therefore, not transportable at the air taxis' lowest or deferred air rates. Such shipments could have been carried at the air taxis' only slightly higher priced service, and in many instances where exclusive use of truck was required, this service would have been cheaper than truck.

Two-thirds of the shipments in our 3-month sample were 430 pounds or less and could have been carried at the lowest rate. Weight, therefore, was not a constraining factor in the use of air taxis. All the other shipments could have been handled under the slightly higher air taxi rates.

We found no indication that priority was a constraining factor either. Although we understand that a quick delivery requirement could eliminate one carrier from being considered, no documentation was maintained to show that quick delivery was a deciding factor in any shipment included in the sample.

High disability costs, or those costs in addition to the line-haul costs needed to place each mode or carrier on equal footing, also could have been a valid constraint resulting in the use of trucks. Again, we found no guidelines on how disability costs were to be considered nor did we find that these costs had been actually included in the cost comparisons.

We did find one documented case where the lack of a nearby cleared airfield was a potential problem for routing air taxi shipments. The airport at Chambersburg, Pennsylvania, the one nearest to Letterkenny Army Depot, was not available for air taxi shipments because Letterkenny officials refused to continue a waiver of Army regulations on minimum safety distances for loading and off-loading hazardous materials. Chambersburg airport officials said they were more than willing to allow the air taxis to use the airport. In any event, since one-third of the shipments originating from Letterkenny were nonhazardous and the waiver was not needed for loading and off-loading nonhazardous materials, air taxis should have been considered.

Statistics GAO used covered only one quarter of year

DOD officials pointed out that the statistics we used to show distribution of cargo between the principal air taxi operators covered only one quarter of fiscal year 1982; whereas, the entire year's statistics showed an almost equal distribution of revenues between operators.

While it is true that the two air taxi operators received almost equal revenue for the overall year, this was not the case before DOD took some corrective action. For the 3-month period we reviewed, Express Airways received 151 shipments and earned \$138,989 in revenue, and Starflight received 65 shipments and earned \$58,740 in revenue. This imbalance was corrected in the 9 months that followed our involvement in the matter.

Revenue alone is not a sound basis to measure equitable distribution because one carrier could get the lucrative shipments while another could get the shipments that yield little or no profit. Consequently, although their revenues might be equal, the distribution certainly could not be considered equitable.

Failure of MTMC routing technicians to follow routing criteria

DOD disagreed that in most instances MTMC routing technicians failed to follow established routing criteria. However, DOD did agree that there had been certain oversights on its



part, such as maintaining adequate airfield and disability cost data and controlling the receipt of certain tariffs, or tenders, but it has resolved or shortly will be resolving these problems.

We believe MTMC is taking positive steps to correct some of the problems. Nevertheless, unless MTMC establishes clear guidelines for its routing technicians and maintains some audit trail to establish why one mode or one carrier is selected on a case-by-case basis, the problems will persist. We believe there can be perfectly valid reasons why one mode or one carrier gets a particular shipment. If there are inherent weaknesses in one mode's or carrier's ability to provide service needed by DOD, these inherent weaknesses should be clearly stated in a routing policy statement on file at the routing offices. If there are service shortcomings of one mode or one carrier on a given shipment, the shortcomings should be noted on the individual shipment routing worksheet. We believe shortcomings related to transit times (including any delay time in picking up a shipment) can best be determined by local installation officials, and unless the MTMC routing officials give those officials the opportunity to contact all the prospective carriers, the routing of this cargo will continue to give appearances of being arbitrary.

DOD also insisted that cost analyses were always made to determine overall delivered costs. Yet, in practice, we did not find this to be the case. On shipments routed by truck, cost comparisons were not with the filed worksheets. At the same time, however, cost comparisons for line haul only were maintained in the files covering shipments routed by air taxi. On none of these shipments, however, did we find comparisons based on costs for both line haul and so-called disability factors.

We could understand the lack of cost analyses if the records had been documented to show that air taxis could not provide the service. Whether one mode was cheaper than another obviously would have been immaterial. Yet the records were not documented to show why the air taxis could not meet requirements.

#### Excess costs and poorer service

DOD officials questioned whether we had demonstrated that the problems we had cited resulted in excess transportation costs or poorer service.

We made no statement as to the overall impact of MTMC's questionable practices in routing shipments. The principal shipments involving excess costs were those where local installations needlessly palletized shipments, which had they moved by air taxi would not have needed palletization. Because palletized shipments were specifically excluded from the air taxis'

lowest priced service, DOD lost the opportunity to use that service and paid the higher truck charges. We did not establish the number of times, however, that this happened.

Our reference to poorer service resulting from failure to use air taxi service was directed at those instances where local installations were not given the opportunity to contact the air taxi operators to see if they could have provided a faster service than truck companies. We saw numerous instances where the trucks operated in circuitous routes and questioned whether the air taxis could not have provided a faster, more direct service had installation officials been given the option of contacting both truck companies and air taxi operators.

MODAL DISTRIBUTION OF CARGOBY STATE(S) WHERE SHIPMENTS ORIGINATED

<u>State(s)</u>	<u>No. of offices making shipments</u>	<u>No. of shipments</u>	<u>Shipments by</u>		
			<u>Truck</u>	<u>Air</u>	<u>Taxi</u>
<u>Eastern area:</u>					
Maine, New Hampshire	2	5	5		0
Massachusetts, Connecticut	6	9	9		0
New York	5	34	34		0
Pennsylvania	4	101	101		0
New Jersey, Delaware	5	43	43		0
Maryland	7	62	49		13
Virginia	5	15	11		4
North Carolina, South Carolina	6	20	13		7
Georgia, Florida	8	24	20		4
Alabama	4	281	182		99
Kentucky, Tennessee, Arkansas, Mississippi, Louisiana	5	101	71		30
Ohio, Michigan	8	24	19		5
Indiana,	6	9	9		0
Illinois, Iowa	6	73	68		5
Minnesota, Wisconsin	5	40	36		4
Missouri, Kansas	3	5	5		0
Oklahoma	5	10	8		2
Texas	3	38	33		5
	12	106	78		28
<b>Total</b>	<b><u>105</u></b>	<b><u>1,000</u></b>	<b><u>794</u></b>		<b><u>206</u></b>
<u>Western area:</u>					
Nebraska, Colorado, New Mexico	9	52	45		7
Utah, Arizona	9	71	70		1
Nevada	3	28	28		0
California	31	172	171		1
Oregon, Washington	4	17	17		0
<b>Total</b>	<b><u>56</u></b>	<b><u>340</u></b>	<b><u>331</u></b>		<b><u>9</u></b>
<b>Total all areas</b>	<b><u>161</u></b>	<b><u>1,340</u></b>	<b><u>1,125</u></b>		<b><u>215</u></b>

MODAL DISTRIBUTION OF CARGO BY  
THE 19 LARGEST SHIPPING OFFICES

<u>Shipping office</u>	<u>No. of shipments</u>	<u>Shipments by</u>	
		<u>Truck</u>	<u>Air taxi</u>
<u>Eastern area:</u>			
Anniston Army Depot, Ala.	271	178	93
Letterkenny Army Depot, Pa.	96	96	0
Naval Weapons Center, Crane, Ind.	54	52	2
Lexington Blue-Grass Army Depot, Ky.	51	35	16
Red River Army Depot, Tex.	38	31	7
Milan Army Ammunition Plant, Tenn.	35	21	14
Naval Ordnance Station, Indian Head, Md.	33	24	9
McAlester Army Ammunition Plant, Okla.	25	20	5
Longhorn Army Ammunition Plant, Tex.	25	9	16
Iowa Army Ammunition Plant, Iowa	23	19	4
Aberdeen Proving Ground, Md.	21	18	3
Lone Star Army Ammunition Plant, Tex.	17	17	0
Seneca Army Depot, N.Y.	17	17	0
Dover Air Force Base, Del.	16	16	0
<b>Total</b>	<b><u>722</u></b>	<b><u>553</u></b>	<b><u>169</u></b>
<u>Western area:</u>			
Sierra Army Depot, Calif.	94	94	0
Pueblo Army Depot Activity, Colo.	32	25	7
Hawthorne Army Ammunition Plant, Nev.	26	26	0
Tooele Army Depot, Utah	23	23	0
Navajo Army Depot Activity, Ariz.	17	17	0
<b>Total</b>	<b><u>192</u></b>	<b><u>185</u></b>	<b><u>7</u></b>
<b>Total all areas</b>	<b><u>914</u></b>	<b><u>738</u></b>	<b><u>176</u></b>

DISTRIBUTION OF CARGO  
AMONG AIR TAXI COMPETITORS

Shipments paid during October, November, and December 1981

<u>Operator</u>	<u>No. of shipments (within the continental United States)</u>	<u>Type of shipment</u>		
		<u>Deferred</u>	<u>Weapons</u>	<u>Priority</u>
Express Airways, Inc.	146	110	31	5
Starflight, Inc.	65	57	8	0
Others	<u>4</u>	<u>0</u>	<u>0</u>	<u>4</u>
Total	<u>215</u>	<u>167</u>	<u>39</u>	<u>9</u>

Shipments routed by MTMC's eastern area

<u>Month of routing</u>	<u>Total no. shipments routed</u>	<u>Distribution of cargo between Express and Starflight</u>					
		<u>All shipments</u>		<u>Weapons shipments</u>		<u>Cumulative totals</u>	
		<u>Exp.</u>	<u>Star.</u>	<u>Exp.</u>	<u>Star.</u>	<u>Exp.</u>	<u>Star.</u>
Sept. 1981	78	45	33	12	10	45	33
Oct.	93	54	39	23	0	99	72
Nov.	37	21	16	6	0	120	88
Dec.	47	26	21	9	0	146	109
Jan. 1982	64	39	25	7	0	185	134
Feb.	48	31	17	2	0	216	151
Mar.	77	42	35	10	0	258	186
Apr.	89	48	41	5	0	306	227
May	56	24	32	2	0	330	259
June	48	23	25	5	5	353	284
July	131	67	64	8	9	420	348
Aug.	<u>76</u>	<u>39</u>	<u>37</u>	<u>12</u>	<u>4</u>	459	385
Total	<u>844</u>	<u>459</u>	<u>385</u>	<u>101</u>	<u>28</u>		

(943195)





25303

**AN EQUAL OPPORTUNITY EMPLOYER**

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

**OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE \$300**

**POSTAGE AND FEES PAID  
U. S. GENERAL ACCOUNTING OFFICE**



**THIRD CLASS**