OFFICE OF
INSPECTOR
GENERAL
UNITED STATES POSTAL SERVICE

Federal Express Air Transportation Container Weights

Management Advisory Report

December 20, 2012

Report Number NO-MA-13-002

OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

HIGHLIGHTS

December 20, 2012

Federal Express Air Transportation Container Weights

Report Number NO-MA-13-002

BACKGROUND:

Federal Express (FedEx) transports mail by air each year for the U.S. Postal Service using air containers that hold letter trays, flat tubs, sacks, and packages. In fiscal year 2011, about 1.2 billion pounds of mail were flown by FedEx during the day. Costs to fly this mail are based on contract minimum volume obligations, with compensation based on the total amount of cubic feet of the air containers transported.

The FedEx contract with the Postal Service also specifies the maximum gross weights allowed for each air container type. The maximum gross weight can impact the ability to utilize the full cubic footage available in the air containers. Our objective was to assess air container maximum allowable weights on FedEx during the day.

WHAT THE OIG FOUND:

The FedEx contract restricts the Postal Service to air container weights that are less than what the containers can actually hold and less than what FedEx advertises to its other customers. While it may not always be feasible to fill containers to their maximum allowable weight, we found that, in some cases, the restrictions result in less than full containers being transported on FedEx. This happened because the Postal Service agreed to air container weights below maximum allowable weights of the containers when negotiating and agreeing to the contract terms.

We were unable to assess the overall impact on transportation costs since historical data does not exist and collecting representative current data was not feasible. However, if the FedEx contract (including any renewals) incorporated higher air container maximum weights for the Postal Service, where feasible, they could significantly reduce contract transportation costs by using fewer heavier weight containers and paying for less of the unused cubic footage.

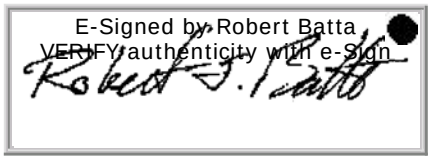
WHAT THE OIG RECOMMENDED:

We recommended the vice president, Supply Management, to the extent feasible, increase the Postal Service's maximum allowable container weights when negotiating existing or future air transportation FedEx contracts with cubic-foot based compensation.

Link to review the entire report

December 20, 2012

MEMORANDUM FOR: SUSAN M. BROWNELL
VICE PRESIDENT, SUPPLY MANAGEMENT



FROM: Robert J. Batta
Deputy Assistant Inspector General
for Mission Operations

SUBJECT: Management Advisory Report – Federal Express Air Transportation Container Weights
(Report Number NO-MA-13-002)

This report presents the results of our review of air container weights allotted to the U.S. Postal Service by Federal Express for air transportation (Project Number 12XG028NL000).

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact James Ballard, director, Network Processing and Transportation, or me at 703-248-2100.

Attachments

cc: Megan J. Brennan
David E. Williams, Jr.
Cynthia F. Mallonee
Dwight Young
Susan A. Witt
Corporate Audit and Response Management

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Introduction

This report presents the results of our review of air container weights allotted to the U.S. Postal Service by Federal Express (FedEx) for air transportation (Project Number 12XG028NL000). Our objective was to assess air container maximum allowable weights on the FedEx Day Network. The U.S. Postal Service Office of Inspector General (OIG) initiated this review, which addresses financial risk. See Appendix A for additional information about this review.

FedEx transports billions of pounds of mail each year (about 1.2 billion pounds in fiscal year (FY) 2011) for the Postal Service on its FedEx Day Network using various air containers or unit load devices (ULDs) that hold individual mail handling units (letter trays, flat tubs, packages, and sacks). These containers range in size and shape to fit various aircraft configurations as shown in Figure 1.

Figure 1. FedEx Air Container ULD

Source: http://satco-inc.com/, 7/16/12.

Source: http://satco-inc.com/, 7/16/12.

The existing contract, which expires September 30, 2013,[1] specifies the maximum gross weight allowed for each air container type. The cost to fly mail on this network is based on contract minimum volume obligations, with compensation based on the total number of cubic feet of the air containers (loaded with mail) transported and whether the footage in these containers is fully used or not. The gross weight limitations on the various air containers can impact the ability to use all of the cubic footage available in the air containers.

Conclusion

The FedEx contract restricts the Postal Service to using air container weights that are less than what the containers can actually hold and less than what FedEx advertises to its other customers. While it may not be feasible to fill containers to the maximum allowable weights in many cases, we found that, in some cases, the restrictions result in FedEx transporting less than full containers. This happened because the Postal Service

[1] Contract number FXNET-2006-01, contract term: July 31, 2006–September 30, 2013.

agreed to air container weights well below the industry's maximum allowable weight for the containers when negotiating and agreeing to the contract terms.[2]

We determined that if the FedEx contract (including any renewals) increased maximum allowable air container weights for the Postal Service — considering aircraft and other operating restrictions[3] — they could reduce contract transportation costs by using fewer (and heavier weight) containers and paying for less of the unused cubic footage.

Air Container Weight Restrictions

The FedEx contract restricts the Postal Service to air container weights that are less than what the containers can actually hold and less than what FedEx advertises to other customers, using the same containers on the same aircraft types. Table 1 illustrates the difference between FedEx contract restrictions and published manufacturer stated rates, as well as the maximums advertised to other customers of FedEx.

Table 1. FedEx Contract, Manufacturer Stated, and FedEx Charter Maximum Gross Weight in Pounds[6] for Three of the Most Common Air Containers

Air Container Type[4]	Cubic Feet	FedEx/ Postal Service Contract Maximum Gross Weight (Pounds)	Manufacturer-Stated Maximum Gross Weight (Pounds)	FedEx Charter Maximum Gross Weight (Pounds)[5]	Difference Between Contract and Manufacturer/Charter (Pounds)
AMJ	590	6,950	15,000	15,000	8,050
SAA	427	4,890	13,300	13,300	8,410
AYY	202	2,415	6,650	6,650	4,235

Source: The numbers in the "FedEx/Postal Service Maximum Gross Weight" column were taken from Exhibit A of the FedEx Renewal contract with the Postal Service dated September 25, 2006. We took the data in the "Manufacturer-Stated Maximum Gross Weight (Pounds)" column from the SATCO Inc. website at http://satco-inc.com/satco-products/air-cargo-containers. SATCO Inc. is the manufacturer of these containers. The data in the 'FedEx Charter Maximum Gross Weight (Pounds)' column were taken from a FedEx associated website.

[2] According to Postal Service officials, during the original negotiations FedEx indicated that maximum gross weights in the Postal Service contract were similar to those used for their own product transported on the FedEx Day and Night Networks. They further indicated this was a component of their desired overall density of the aircraft load and fit within their weight and balance goals for the aircraft, requiring minimal daily aircraft load planning.
[3] Operating restrictions include things, such as airport restrictions; and weather at flight origin, en-route, or destination.
[4] AMJ, SAA, and AYY are the air container or ULD names – these are not acronyms.
[5] The figures were taken from the FedEx associated website address http://charters.fernohost.com/container-guide, as of September 12, 2012. By December 2012, we found this website address was no longer active.
[6] In effect as of September 2012 and widely available on the web, these 'gross weights' are the total weight of the individual air container (or ULD) and its contents. Aircraft structural limitations and other operating restrictions may not allow for all containers on a particular flight to be filled to the manufacturer's maximum gross weight.

This weight restriction allows FedEx to limit the Postal Service, in most cases, to 36.32 percent of the gross maximum ULD weight for the AYY air container. The limitation is 36.77 percent for SAA air containers and 46.33 percent for AMJ air containers. In many cases, the restrictions result in half-full containers being transported on FedEx (see Figure 2 and red arrows showing the height of the mail).

Figure 2. Air Containers Partially Filled due to FedEx Limitation on Weight

Source: OIG photo taken 3/14/07.

Source: OIG photo taken 3/14/07.

Our analysis showed that, with the exception of a few locations,[7] most Postal Service air transportation origin locations are bound tightly to FedEx contract maximum gross air container weights. For example, Sacramento, CA has been strictly held to the 6,950 pound maximum for AMJ air containers and the 2,415 pound maximum for AYY air containers, resulting in not using as much as half of the cubic footage available. The red arrows in Figure 3 show some examples of unfilled space in air containers.

[7] Postal Service records show air containers significantly above the FedEx contract maximum allowable weights were regularly accepted and transported on the FedEx Day Network from Des Moines, Reno, Salt Lake City, and Seattle.

Figure 3. Partially Filled AMJ Air Containers Transported on the FedEx Day Network

Source: OIG photo taken 9/21/06.


Source: OIG photo taken 3/14/07.

Some air container maximum weights specified in the Postal Service's transportation contract with FedEx[8] are well below manufacturer stated maximum weights and those advertised to FedEx customers other than the Postal Service. The Postal Service entered its contract with FedEx in 2001, the terms of which included air container weight restrictions the Postal Service agreed on. According to Postal Service officials, during the original negotiations FedEx indicated the maximum gross weights in the Postal Service contract were similar to those used for their own products transported on the FedEx Day and Night Networks. They further indicated this was a component of the desired overall density of the aircraft load and fit within their weight and balance goals for the aircraft, requiring minimal daily aircraft load planning. This resulted in low maximum weight restrictions on several widely used air containers. Postal Service officials asserted that the reason was that FedEx wanted to maintain a certain aircraft density of payload across all of its jet fleet. We acknowledge that container weight may impact the overall weight and balance of the aircraft, but manufacturer stated maximums allow for a higher weight and FedEx advertises higher maximum weights to its other customers.

We were not able to assess the overall impact on the Postal Service's transportation costs as comprehensive historical data does not exist. It was also not practicable to collect the data.[9] However, we believe the Postal Service could derive worthwhile cost savings if maximum air container weights were increased (as shown in Appendix B), while still maintaining the requirements of the overall load and balance of the aircraft. For example, the two AMJ containers illustrated above would generate a payment of [redacted] based on 590 cubic feet for each AMJ at a rate of [redacted] per cubic foot. If the

[8] ULD maximum gross weights are defined in Table A of Exhibit A of the FedEx contract with the Postal Service.
[9] Comprehensive and reliable data in this case would consist of a visual of every air container dispatched from all 78 FedEx Day Network origin airports, 6 days per week, and would require extensive observation of all containers at all locations to determine cubic footage actually used based on the mail mix on any given day.

mail were combined into one AMJ container, it would still weigh less than the manufacturer stated maximum and would only cost the Postal Service about half as much, or [redacted] in transportation costs.

Recommendation

We recommend the vice president, Supply Management:

1. To the extent feasible, considering aircraft limitations and other operating restrictions, increase maximum allowable container weights for the Postal Service when negotiating FedEx existing or future air transportation contracts with cubic-foot based compensation.

Management's Comments

Management generally agreed with our finding and recommendation. Management provided information evaluating standard container weights versus average daily operating container weights, held discussions with FedEx regarding day-to-day achievable container weights/stowed density, and analyzed Postal Service volumes and density. Additionally, management stated that the OIG has suggested that the Postal Service negotiate industry standard [maximum] container weights into future similar contracts and inferred that the OIG suggested all of the air containers on individual flights could be loaded to these maximum weights. Management did, however, commit to negotiate with its suppliers for increased maximum container weights for contracts with cubic foot-based compensation. See Appendix C for management's comments in their entirety.

Evaluation of Management's Comments

The OIG considers management's comments responsive to the recommendation in the report. In particular, management's commitment to negotiate with suppliers for increased maximum container weights for contracts with cubic foot-based compensation reflects their responsiveness. However, management's assertion that the OIG suggested the negotiation of industry standard maximum weights for all air containers into future contracts is not correct. While we identified the industry standard maximum weights, we clearly only suggested a set of increased maximum allowable weights significantly lower than the industry standard maximum weights by as much as 32.3 percent as shown in Appendix B of the report. Additionally, we stated multiple times in meetings with management and in the report that it is understood that all air containers on any individual flight could not be loaded to industry standard maximum weights due to operating restrictions and aircraft structural limitations. For clarification, we changed the language in the report to refer to the Postal Service's maximum allowable container weights.

The OIG considers this recommendation significant, and therefore requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when

corrective actions are completed. The recommendation should not be closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation that the recommendation can be closed.

Appendix A: Additional Information

Background

Postal Service policy requires managers to balance service and cost in transporting mail, including mail transported by air. FedEx transports millions of pounds of mail in the air each year on its Night and Day Networks for the Postal Service. In FY 2011, FedEx transported 78 million pounds of Express Mail, 823 million pounds of Priority Mail, and 329 million pounds of First-Class Mail (FCM) on these networks. The Day Network carried the bulk of the mail at 1.16 billion pounds. Costs to fly this mail on the FedEx Day Network are based on contract minimum volume obligations, with compensation based on the total amount of the air containers' cubic footage (loaded with mail) transported whether the cubic footage of these containers is fully utilized or not. This differs from other existing Postal Service contracts with air carriers that are compensated based on the pounds of mail transported. The existing contract with FedEx expires September 30, 2013. The Postal Service may renew the contract or seek a replacement service.

The air containers FedEx uses to transport mail come in several different sizes and capacities. The ULDs in Figure 4 are the most frequently used on the FedEx Day Network.

Figure 4. FedEx Air Containers: AMJ, SAA, AYY, and AKE ULDs[10]

AMJ

SAA

AYY

AKE

[10] We found pictures of the AMJ, SAA, and AYY on 7/16/12 at http://satco-inc.com and we took the AKE picture on 2/24/09.

FedEx Contract Weight Provisions. The FedEx contract addresses aircraft limitations as they relate to maximum allowable air container weights. Specifically, Section 4.1.1 of Exhibit A of the FedEx contract states that:

> "ULDs weighing more than the Maximum Allowable Weight [shown in Table A of Exhibit A] may be unloaded by FedEx to comply with the structural limitations of the aircraft. Any Handling Units that are unloaded for this purpose will be transported in mixed containers and will be handled and billed as Handling Units (other than ULDs) in the same manner as bulk packages. The average USPS density outbound from any market cannot exceed the structural limits of the aircraft. If ULDs must be unloaded or removed in order to comply with the structural limitations of the aircraft and if the ULDs tendered by USPS are not in excess of the Maximum Allowable Weights, FedEx will not adversely discriminate against USPS in the unloading or removal of ULDs from the aircraft. In no event will any Handling Unit, as a result of this transload, be billed two handling charges."

Objective, Scope, and Methodology

Our objective was to assess air container maximum allowable weights on the FedEx Day Network. To accomplish our objective, we examined computer-generated data for a 2-year period from April 1, 2010 through March 31, 2012, analyzing mail volume, operational efficiency, and costs. We did not audit or comprehensively validate the data; however, the large amount of data, its untimely accessibility, and complex analytical processes significantly constrained our work. We did not project estimated cost savings because it was not practicable to collect the data.

To address these data limitations, we applied alternative procedures. We used the Audit Command Language program to analyze millions of data records for the air containers transported on the FedEx Day Network for the aforementioned 2-year period to determine how many, if any, overweight (according to the FedEx contract maximum weight limits) ULDs were tendered to and transported by FedEx on the Day Network.[11] We discussed the data with Postal Service senior officials, managers, and employees and validated it based on observations and physical inspections conducted during previous audits concerning Postal Service operations related to FedEx and the density of FCM transported by air. We consulted various loadmasters[12] concerning structural aircraft limitations and placement (load configuration) of air containers in various cargo aircraft and discussed our initial findings and recommendations with senior Postal Service management, considered their perspective, and included their comments where

[11] Our scope is limited to U.S. mail being transported on the FedEx Day Network and any possible replacement of this network.

[12] A specialized position with commercial and military air carriers, this person performs the calculations and plans cargo and passenger placement to keep the aircraft within permissible center of gravity limits throughout the flight. Loadmasters ensure that cargo is placed on the aircraft in such a way as to prevent overloading sensitive sections of the airframe and cargo floor.

appropriate. We researched applicable manufacturer-stated weight limits, including the limit FedEx publicly advertises, as available for charter flights and compared them to the FedEx contract with the Postal Service.

We analyzed historical data and current information related to ULDs transported by FedEx. We interviewed the appropriate managers at headquarters, obtained appropriate policies and procedures, and relied on previous audit field visits to document exceptional activity. We determined that the data were sufficiently reliable for the purposes of this report.

We conducted this review from August through December 2012 in accordance with the Council of the Inspectors General on Integrity and Efficiency, *Quality Standards for Inspection and Evaluation.* We discussed our observations and conclusions with management on September 20, 2012, and included their comments where appropriate.

Prior Audit Coverage

Report Title	Report Number	Final Report Date	Monetary Impact
Air Networks – Federal Express Transportation Agreement – National Analysis	NL-AR-10-010	9/29/2010	None

Report Results:
The report summarized audits covering all Postal Service geographical areas, which identified three inefficiencies associated with mail transported on FedEx. We found that Postal Service Headquarters needs to strengthen nationwide processes, guidance, and monitoring in implementing the FedEx Transportation Agreement to ensure the most efficient and effective transportation of mail. Prior audits in the eight Postal Service areas determined the Postal Service incurred unnecessary costs of more than $94 million[13] because local officials were improperly transporting surface mail classes on FedEx, using FedEx instead of lower cost commercial air carriers to transport FCM and not maximizing the use of by-pass containers to avoid FedEx handling charges.

Report Title	Report Number	Final Report Date	Monetary Impact (in millions)
Density of First-Class Mail on Air Transportation	NL-AR-12-003	3/12/2012	$267

Report Results:
The report identified efficiency opportunities related to processing FCM and reducing the number of letter trays and tubs transported by air. The Postal Service generally agreed to our audit findings and recommendations with a monetary impact of $267 million. For this audit, the monetary impact related to FedEx was $229 million.

[13] These reports also identified $420.8 million in funds put to better use in the eight postal areas.

Appendix B: Opportunities to Increase Air Container Maximum Weights

Our analysis of air container weights and density identified opportunities for increased weight limits for SAA, SAX, AYY, AYX, and AMJ air containers. The existing FedEx contract maximum air container weights and potential maximum weights are shown below. The potential maximum weights are in line with the actual weights (in pounds) of many air containers of mail transported by FedEx in the 2-year period ending March 31, 2012.

EXISTING MAXIMUM ALLOWABLE WEIGHTS					POTENTIAL MAXIMUM
Air Container	**ULD Description**[14]	**Cubic Foot Capacity**	**Approximate Tare Weight (pounds)**	**Maximum Gross Weight**	**Maximum Gross Weight**
SAA	Full Contour	427	575	4,890	**9,500**
SAX	Full Contour Hazardous	418	713	4,890	**9,500**
AYY	Demi	202	301	2,415	**4,500**
AYX	Demi Hazardous	202	294	2,415	**4,500**
AVE	LD-3	153	182	3,500	**no change**
AKE	LD-3	153	215	3,500	**no change**
AMJ	AMJ	590	767	6,950	**12,500**

Source: Table A of Exhibit A of the FedEx contract with the Postal Service.

Source: OIG analysis.

In our analysis, we considered what FedEx has carried in the past in terms of air containers exceeding contract weight limits. We also considered the contractual maximum weight and density of other air containers carried by FedEx (mainly the AKE/AVE air containers) as well as aircraft structural limitations.

Finally, we considered the FedEx allowable maximum weight of 3,500 pounds for the AKE air container and determined the gross density of the containers. We concluded that the gross density of this container, loaded to 3,500 pounds, would be 22.9 pounds per cubic foot (3,500 divided by 153 cubic feet). Following the same logic, we determined that other containers could carry additional weight with similar density.

[14] ULD descriptions are in Table A of Exhibit A of the Postal Service's contract with FedEx (Contract Number FXNET-2006-01).

Specifically:

- The potential maximum weight of 9,500 pounds for an SAA container would equal a gross density of 22.2 pounds per cubic foot.

- The potential maximum weight of 9,500 pounds for the SAX (the hazardous materials version of the SAA) would equal 22.7 pounds per cubic foot.

- The potential maximum weight of 4,500 pounds for the AYY and AYX would equal 22.3 pounds per cubic foot.

- The potential maximum weight of 12,500 for the AMJ would equal a gross density of 21.2 pounds per cubic foot.

Filling all of the air containers for any one aircraft/flight to manufacturers' or the FedEx Charter's maximum allowable weight may not be feasible due to aircraft limitations and other operating restrictions. The average mail mix, in terms of cubic feet displaced, is about 70 percent Priority Mail[15] and 30 percent FCM; however, it offers an opportunity to reach the proposed increased potential weight for a few air containers, per day, per origin. With the cost avoidance for one reduced air container reaching as much as [redacted],[16] this could result in significant annual savings over time and across the network. We are not proposing or suggesting that more mail be tendered to FedEx, but that the same relative amount of mail tendered today be tendered to FedEx (or any other carrier compensated on a cubic footage basis) in fewer air containers.

[15] Priority Mail in FY 2011 only averaged 6.07 pounds per cubic foot on the FedEx Day Network.
[16] As shown earlier in the report for the reduction on one AMJ air container resulting in [redacted] in savings.

Appendix C: Management's Comments

SUSAN M. BROWNELL
VICE PRESIDENT, SUPPLY MANAGEMENT

UNITED STATES POSTAL SERVICE

December 6, 2012

JUDITH LEONHARDT

SUBJECT: Response to Draft Audit Report – Federal Express Air Transportation Container Weights (Report Number NO-MA-13-DRAFT)

Thank you for providing the Postal Service with the opportunity to review and comment on the aforementioned draft report. The report addresses air container weights for mail transported under the Federal Express (FedEx) agreement with the United States Postal Service (USPS).

Based on our review of the report it appears that the Office of Inspector General (OIG) has concluded that the gross contract container weights in the agreement are less than industry standard weights and less than those offered to other customers by FedEx. Further, the OIG suggests that if the USPS negotiates these industry weights into current and future contracts priced by the cubic foot, some financial savings would accrue to USPS.

Issues regarding the weight restrictions in the FedEx contracts have been the subject of previous audits, reports and discussion for several years. In order to achieve a balanced response reflecting standard business practices regarding achievable container weights in day-to-day operations, the USPS has taken the following actions:

1. Reviewed the industry standard container weights versus typical daily operating container weights.

2. Conducted fairly extensive discussions with FedEx regarding day-to-day achievable container weights and stowed density.

3. Performed analyses of postal volumes, weights and average container stowed density.

Industry Standard Container Weights versus Typical Daily Operating Container Weights: Based on our review of the OIG report, it is clear that the OIG adopted the "Manufacturers Volumetric Capacity" in its calculations. When this capacity is filled to the breaking point of the container, it represents the maximum weight that the container can structurally support (aka "Unit Load Device (ULD) Maximum Gross Weight"). Although when viewed alone, a container can support ULD Maximum Gross Weight, the aircraft cannot meet its range-payload mission if all containers on the aircraft are loaded in such a fashion and in many cases, it could not get off the ground.

Discussions with FedEx: Based on our discussions with FedEx they plan for a "Maximum Revenue Payload", which is the maximum cargo weight in each container that the aircraft can safely lift and meet its mission requirements. Loading more cargo than this weight in all containers (… even though the cargo might fit into the containers) means carrying less fuel.

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Less fuel means reduced range, resulting in a higher unit cost network. Owing to these operational realities and tradeoffs, FedEx generally adopts a "Planning Density" of less than 8-10 pounds per cubic foot, per container. The relationship between aircraft Manufacturer's Volumetric Capacity, Maximum Revenue Payload, and Planning Density is shown in the table below.

FedEx Selected Jet Aircraft	Manufacturers Volumetric Capacity (Cubic Feet)	Maximum Revenue Payload (Pounds)	Planning Density (Payload ÷ Capacity in Pounds / Cubic Foot)
MD-10F	16,216	110,055	6.8
MD-11F	20,765	164,200	7.9
A300-600F	15,036	85,600	5.7
A310-200F	10,929	61,900	5.7
B757-200F	8,430	45,800	5.4
B727-200F	6,805	43,066	6.3

Sources:
Manufacturers Volumetric Capacity = Boeing & Airbus
Maximum Revenue Payload = FedEx Stat Book

Characterized in another way, the Manufacturers Volumetric Capacity should not be filled in a manner that exceeds the Maximum Revenue Payload of the aircraft. For example, if the volumetric capacity of the MD-10F (16,216 cubic feet according to Boeing, but less in a realistic operational environment) were filled with products weighing >7 pounds per cubic foot, the resulting payload (=113,500 pounds) would exceed the takeoff capability of an MD-10F aircraft with the fuel required to meet its mission.

Based on our analysis and discussions with FedEx the maximum cargo weight and "*no fuel*" is the structural design density of the aircraft (generally =12 pounds per cubic foot for these types of freighters). Accordingly, FedEx does not offer networks and/or charter services that are designed to achieve maximum container weights throughout the entire aircraft. As shown in table below, if the supplier loads containers to their maximum weight, the total weight would exceed the maximum takeoff weight for the aircraft.

Air Container (ULD) Type	ULD Capacity (Cubic Feet)	ULD Maximum Gross Weight (Pounds)	Stowed Density (Pounds / Cubic Foot)
AMJ	590	15,000	25.4
SAA	427	13,300	31.1
AYY	202	6,650	32.9
AKE	153	3,500	22.9

Note: That for any ULD Stowed Density >12 pounds per cubic foot, other positions on the aircraft are usually "voided", such that the overall Stowed Density of the aircraft is less than it's Structural Design Density. Stowed Density values from the OIG report as shown above

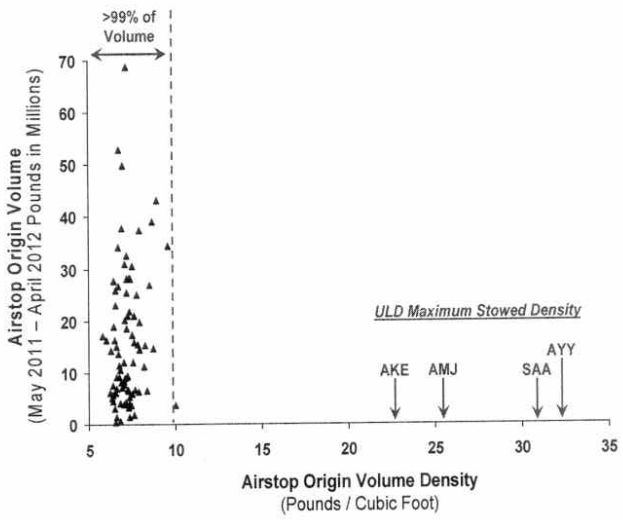
are about twice this Structural Design Density of the aircraft; and, therefore, not achievable in a day-to-day operating environment.

In the current USPS – FedEx contract, Stowed Densities are planned at more realistic values, as shown below, with the exception of the AKE ULD.

Air Container (ULD) Type	USPS - FedEx Contract Maximum ULD Weight (Pounds)	Maximum Planned Contract Density (Pounds / Cubic Foot)
AMJ	6,950	11.8
SAA	4,890	11.5
AYY	2,415	12.0
AKE	3,500	22.9

USPS Volumes and Density: Based on our analysis of postal volume the achievable densities are less than a third of the maximum container weight density (i.e., the ULD Maximum Stowed Density). Analysis shows that given the average density of USPS products, it is highly unlikely that containers could be loaded to their maximum weights.

As noted in the graphic to the right, 99% of the mail dispatched by the USPS averages a density of <10 pounds per cubic foot. As the table above shows the ULD maximum stowed density exceeds 22 pounds per cubic foot.



OIG Audit Recommendation: We recommend the vice president, Supply Management:

1. To the extent feasible, considering aircraft limitations and other operating restrictions, increase maximum allowable container weights when negotiating FedEx existing or future air transportation contracts with cubic-foot based compensation.

Management Response: Although management does not agree (as discussed above) with some of the assertions in the OIG report, we do agree with the OIG recommendation to negotiate with suppliers (FedEx and others) to reach agreement to increase maximum container weights in future air transportation contracts with cubic-foot based compensation.

Target Implementation Date: USPS management considers this recommendation closed based upon our agreement above. However, if closing the recommendation at this time is not acceptable to the OIG, then the target implementation date should coincide with the FedEx contract performance end date of October 1, 2013.

Responsible Manager: Manager, Air Transportation Category Management Center

This report and management's response do not contain proprietary or sensitive business information that may be exempt from disclosure pursuant to the Freedom of Information Act. If you have any questions about this response, please contact Susan Witt at (202) 268-4833.

Susan M. Brownell

cc: Megan Brennan
David Williams
Mary Taylor
Dwight Young
Susan Witt
Corporate Audit and Response Management