## AIR CARGO

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## Introduction

The panel review of FAA's draft air cargo forecast was mixed. Specifically, the panel determined that FAA's forecast was too low for international freight/express revenue ton-miles (RTMs) and the widebody fleet. The FAA forecast was too high for domestic freight/express RTMs and international mail RTMs. The FAA forecast was on target for domestic mail RTMs and the narrowbody fleet.

## **General Trends and Issues**

The panel sees a continuing growth in the air cargo industry. The panel also expects this growth to continue at a faster rate than that for the commercial air passenger industry. The panel sees favorable worldwide economic growth that will facilitate air cargo industry growth. There are, however, several key issues that will affect the industry both in the short and the long term.

Environmental issues will have a major impact on the air cargo industry over the next decade. In general, the panel sees strong potential for increasing restrictions on aircraft noise and emissions that will affect business costs and operations. Some airports, particularly in Europe, have established penalties or credits to encourage the use of quieter and cleaner aircraft. In addition, ICAO has been tasked by national governments at the recent Kyoto conference to establish a baseline for worldwide aircraft emissions and to determine how to assess nations for their contribution to these emissions. There is strong potential that all or part of these costs will be passed on to carriers, including cargo carriers. The movement to Stage III and the potential requirement for Stage IV aircraft will affect the air cargo market, including the market for new or refitted cargo aircraft.

Capacity issues will also continue to play a key role in the air cargo industry. Slots and capacity restrictions at airports already limit air cargo operations. These restrictions, unless addressed, will have an increasingly negative effect on operations as the cargo market expands. This, in turn, will limit growth through lost opportunities. Some major airports, in particular, have limited potential for expansion. As a result, the panel sees the emerging and continued development of "cargo" airports that have significantly greater air cargo presence than usual and an increasing interest by communities to establish primarily cargo airports—often in less convenient locations.

## **Concerning Data Used for FAA Forecasts**

The panel generally understood the limitations on the data available to the FAA in making its forecasts, as well as those on staff and funding. The panel did, however, see some opportunities to improve the information presented by the FAA. The panel also recognized the need for the industry to establish working groups among air cargo entities to develop information and data that would be helpful in their forecasting and trend analysis. The panel did not find it necessary for the government to perform this function, but did see a need for the government to facilitate these efforts and to participate as group members.

## Data Improvements for FAA Forecasts

Concerning suggestions for data improvements, the panel saw a need for the FAA to distinguish between the express and general air freight businesses. This distinction is important because the trends in these two types of air cargo businesses are very different, including the fact that express business is growing more rapidly than air freight business.

The panel also noted that FAA's current data are very "United States-centered" and therefore do not account for some air cargo movements. FAA's data, for example, include information on U.S.-to-U.S. and U.S.-to-international destinations, but does not include international-to-U.S. destinations. The panel recognized that accurate and comprehensive international air freight data are not available from published sources. Such information is very valuable for capacity planning in the express industry.

The current FAA cargo forecast does not address world geographic distinctions. Geographic distinctions are important because the flow of cargo, type of cargo, and market growth differ across regions. The Latin American air cargo market, for example, has grown more quickly than the European market over the last decade. The panel noted the clear distinction between passenger and cargo markets. Simply stated, passengers generally make round trips and cargo doesn't. Examining cargo movement by direction, therefore, provides a much clearer picture of the air cargo industry. In addition, the panel noted that the "to and from" directional tonnage depends on whether it is a national or international shipment.

# Industry Working Groups To Obtain Critical Data for Forecasts

The panel recognized that it would be helpful to establish industry working groups to share data that would be useful in making forecasts. The panel did not find it necessary for the government to perform this function, but did see a need for the government to facilitate these efforts and to participate as group members to contribute their expertise and knowledge. The panel also recognized that this effort would address the suggestions made in 1997 by the previous air cargo panel concerning the need to develop air cargo databases and convene a forecasting forum to discuss data findings, assumptions, and methods.

Panel members discussed ongoing consideration by some cargo carriers to establish an industry working group. This group, for example, may include FedEx, UPS, Airborne, and DHL. These companies would share and aggregate proprietary shipment and weight data by region. This would enable them to develop a better understanding of market trends and potential that would be useful in their business planning.

While panel members said that they did not want to have the government perform the functions of such working groups, they did suggest government participation and recognition. Government participation, including participation by analysts from the FAA, the U.S. Departments of Transportation and Commerce, ICAO, and IATA, for example, would both benefit the working group and provide both national and international perspectives. The panel also believed that recognition by these government entities would both indicate the importance of the group and

help to further recognize the importance of the air cargo industry to national and world economies.

Finally, the panel would consider industry working groups as fulfilling the suggestions made by the previous air cargo panel in 1997. The previous panel had suggested that FAA spearhead an effort to develop comprehensive air cargo databases and convene a forecasting forum to develop a consensus view and report for industry use. The forum was to provide a vehicle for forecasters to discuss their findings, assumptions, and methods. The panel strongly believed that the FAA should provide greater focus on air cargo by having a separate break-out session for air cargo at its annual forecast conference. The FAA should also provide the opportunity for an informal discussion group to meet and exchange ideas and discuss important air cargo issues as part of the conference.

## **FAA's Issues Concerning Air Cargo**

FAA requested that the panel discuss several key issues related to growth and financial factors in the air cargo industry.

## Growth of All-Cargo and Belly-Cargo Carriers

The panel suggested that for the domestic market all-cargo carriers would grow relatively faster than belly-cargo carriers. However, there was some discussion that there is no universally accepted definition of what constitutes the all-cargo carrier segment. For the international market it was mentioned that the relative trend cannot be generalized and depends on what region of the world is being considered. It was also noted that the future growth for the market shares of the belly-cargo segment is tied to the outlook for the passenger market. For example, with high passenger load factors there may be less room for belly cargo. However, if there is sufficient expansion of passenger carrier operations, this could provide additional capacity to accommodate cargo activity. There is also potential competition from so-called fast cargo ships on the North Atlantic.

## Potential for All-Cargo Carriers To Expand into Passenger Market

UPS confirmed that they do operate charter flights. These operations are usually Thursday through Monday. This has been on an experimental basis and has recently grown. UPS, however, does not intend at this time to expand into the scheduled passenger market. The panel was not aware of other efforts by all-cargo carriers to move into the passenger market.

### Financial Factors Affecting All-Cargo Activity

The panel had reached consensus that real yield will continue to decline in the near term. Unit costs have a tendency to

rise because of factors outside the control of the carriers. These costs include fuel costs, capital costs, handling and landing fees, airport charges, and labor costs. Also, fees for air traffic services may be more costly than existing regimes such as taxes as nations, including the U.S., move to feebased assessments for providing air traffic services. These factors may have an impact on profitability, particularly for all-cargo carriers. Belly carriers, however, can spread the cost of these factors to their passenger segment.

## **Domestic Air Cargo RTMs: U.S. Commercial Carriers**

## 1. Domestic freight/express

	1999-00	2001-01	1994-04
FAA forecast	4.9	5.0	5.5
Panel projection	3.9	4.0	4.5

## Reasons for changes:

- Domestic cargo growth has not exceeded GDP growth in recent years.
- The GDP forecast used by FAA shows slower GDP growth.

#### Factors to consider:

- Domestic air cargo growth is inversely related to imports, and import growth is expected to be high.
- The impact of e-commerce will not be as great on air cargo as projected by some analysts because it mainly moves by truck.
- The centralization of distribution centers will affect RTMs without affecting actual tonnage.
- The "conventional" views of how to look at the economy, such as business cycles, may be changing.

### 2. Domestic mail

	1999-00	2001-01	1994-04
FAA forecast	3.3	3.3	3.6
Panel projection	OK	OK	OK

# Reasons for changes: Not applicable.

## Factors to consider:

- Some domestic mail carried on contracted U.S. commercial carriers for the USPS is not being reported.
  - The USPS should have these data.

# **International Air Cargo RTMs:** U.S. Commercial Carriers

## 1. International freight/express

	1999-00	2001-01	1994-04
FAA forecast	6.9	7.5	7.3
Panel projection	UK	OK	7.5-7.6

## Reasons for changes:

• The panel was more optimistic for a strong international market, especially for express.

### Factors to consider:

- The continued strengthening and stabilization of the Asian and Latin American economies.
  - A general increase in market opportunities:
- a) Increased 5th-freedom opportunities with additional open skies agreements. For example, there may soon be an open skies cargo agreement with Hong Kong that will provide great opportunities.
- b) Growth and development of the China/U.S. market.
- c) Decreased costs for cargo carriers from global airline alliances.

#### 2. International mail

	1999-00	2001-01	1994-04
FAA forecast	3.1	3.5	3.5
Panel projection	2.7	3.0	3.0

### Reasons for changes:

• The panel does not see the international mail market to be as strong as the projection.

#### Factors to consider:

- It is now much cheaper to fax documents than in the recent past because of cheaper telephone rates and other telecommunications innovations.
- The international mail market faces increasing competition from Internet use for delivering personal and business mail as well non-document-type products.
- The USPS is aggressively working to build its international market, which would move projections up if the USPS is successful.

# Air Cargo Tonnage:

### U.S. International Tonnage by Region

The panel determined that forecasts by regions would be useful information and encourages the FAA to pursue providing this information. In additional, the panel would encourage the FAA to use more comprehensive econometric models. These could include export/import trade data, exchange rates, and industrial production and consumption data.

# Jet Fleets and Manufacturers: U.S. Air Carrier Large Cargo Aircraft

Note: This category of analysis was proposed by the FAA to be added, and the panel endorses this addition.

#### 1. Large cargo aircraft—narrowbody

	1999-00	2001-01	1994-04
FAA forecast	2.0	1.7	1.4
Panel projection	OK	OK	OK

# Reasons for changes:

Not applicable.

### Factors to consider:

- Aging aircraft, upgrading to widebody aircraft, and noise restrictions may affect the market for this aircraft.
  - Lack of commonality among containers is a problem.

#### 2. Large cargo aircraft—widebody

0 0	1999-00	2001-01	1994-04
FAA forecast	8.8	7.5	5.8
Panel projection	OK	OK	7.5-8.0

#### Reasons for changes:

- The panel is more optimistic that widebody aircraft growth will continue.
- There is a strong market for converted widebody passenger aircraft.

### Factors to consider:

- Watch for continued less belly capacity for passenger aircraft if the passenger market remains strong, leading to an increase in widebody cargo aircraft to accommodate this "spill" from belly cargo.
- Previous industry fleet forecasts, such as those provided by Boeing, have underestimated growth.
- The profitability of all-cargo operations may affect the number of aircraft.
- Demand for all-cargo aircraft may vary by region because of increasing use of the Boeing 777 for passenger use, which increases belly space available for cargo.