

After three years of declining traffic and pressure on yields, many freight airlines are beginning to experience a market recovery. Many airlines are planning to expand their networks and are considering their fleet plans.

# The corporate development & fleet plans of major freight airlines

**M**ost freight carriers report that air freight traffic is starting to recover. This makes it prudent to examine the operations of some of the major freight airlines in Europe, North America, Latin America and Africa to see how they might develop in terms of route network expansion and fleet evolution.

## Europe

The relative size of Europe's major airlines has changed slightly in recent years, with Lufthansa Cargo becoming a more dominant player.

### European Air Transport

EAT is a wholly owned subsidiary of DHL Worldwide Express. EAT operates a mainly night operation from Brussels to 67 European cities. These include major West European airports and an extensive network to East Europe, Turkey and Moscow. EAT's cargo consists entirely of small packages and parcels for DHL.

EAT is in the process of replacing its 727-200s with 14-container 757-200s. EAT also operates A300B4s.

Deutsche Post recently acquired Danzas and DHL Worldwide Express and there are plans for these three companies to harmonise their European networks. EAT has not yet ascertained whether this would lead to the opening of more air routes, or use larger or more aircraft.

### TNT

TNT is Europe's other major express package carrier, and has a fleet of 25. It is a self-contained airline and carries its own freight on its scheduled network across Europe. It also charters a few other carriers, such as Atlantic Airways and Icelandair Cargo, to carry freight for it.

"We serve about 57 cities in Europe, and hub at Liege, Belgium. This includes cities in West Europe, the Baltic States

and East Europe," says Tom Storey, director of fleet development at TNT Express. "Our fleet is 18 BAE 146s, six A300B4s and one 737-300F. We have had little growth in the number of consignments over the past few years, but have recently had a small increase. Traffic growth has now resumed at 2% a year. We have tried to discard lower yield general freight and this contributed to low growth rates in recent years. We are, however, experiencing an increase in the number of lower-density packages. This, and the reduction in general freight, has caused an improvement in the yields. Our future strategy is to carry express freight only and we have a target to increase the number of airports we serve to 67 over the next few years. We do not need to add frequency on our current services because it will not make any difference to our service. As traffic grows we might change the network so that multiple-stop routes become several single-stop routes, which may result in more aircraft being added. We have recently received one 737-300 and will get a second in October, and are considering more as we add more routes. We can see annual growth rates returning to 5-6%, and will operate new routes with BAE 146s, and use 737s on existing routes with mature volumes. We could then later operate a larger type like the 757 on routes with heavier volumes."

### Martinair

Martinair is a scheduled freight carrier operating from Amsterdam which carries general freight and perishables. It operates to all major continents.

It has recently added services to Doha, China and Chicago. Growth rates in recent years have been positive, with an average increase of 8.5%.

The airline sees China as offering the biggest opportunities. Its current fleet is four 747-200s and six MD-11s, and it plans to add one aircraft per year either to cater for traffic growth or replace older

types. It is aiming for steady growth with low capital cost aircraft and is considering converted 747-400s, which may be used to replace its MD-11s.

### Lufthansa Cargo

Lufthansa Cargo is now a major European freight carrier. It is a scheduled airline, but also operates a few charters. Lufthansa Cargo carries its own freight as part of a freight alliance with Japan Airlines, Singapore Airlines (SIA) and SAS; and also transports freight for its joint venture partners. For example, it has a joint venture with Air China and they share capacity between Germany and China. It also has joint ventures with Air New Zealand, Cathay Pacific and South African Airways.

Lufthansa Cargo has an extensive long-haul route network, including a large number of major cities in the Asia Pacific region, five in the US, three in South America and Johannesburg and Nairobi in Africa.

Lufthansa Cargo also transports 40% of its freight by its sister passenger airline.

The airline carries manufactured goods and textiles, and has experienced double digit growth on its Asia routes, but less than its average 20-year forecast rate of 6.4% in European and the US.

Lufthansa Cargo is considering new destinations in China. It wants to keep its route flexibility and so will not consider using aircraft larger than the 747-200/-400. It has mainly daily frequencies on its flights to Asia and the US, and may convert more MD-11s or possibly 747-400s from its sister airline Lufthansa.

### Cargolux

Cargolux is one of Europe's largest freight carriers, and it specialises as a freight forwarders' airline. It carries mainly manufactured goods and semi-finished products on a long-haul route network that only excludes Russia and



parts of Africa.

"We have a dense route network that includes Hong Kong, Japan, Taiwan, Thailand, Mexico, Canada, Brazil, Colombia, the US, Australia and New Zealand. Our network includes a lot of fifth freedom route rights," says Lucien Schummer, vice president of strategy and alliances at Cargolux. "These fifth freedom route rights include routes to our European hubs at Prestwick, Budapest and Milan. Our route network has been helped by an open skies agreement with the US and liberal cargo agreements with many other countries."

Cargolux has experienced average growth rates of 12% over the past eight or nine years, and has outperformed the industry's average by 6-7% each year. "We have probably been able to maintain positive growth over this difficult period because of the way we manage our traffic flows," explains Schummer. "We have recently added Azerbaijan to our network by using fifth freedom rights, and have also added the Philippines and Panama as new destinations, and also added frequencies on to Shanghai, Mexico and East Africa."

Cargolux operates 12 747-400s and generates utilizations of about 5,700 flight hours (FH) per year, one of the highest rates in the industry. It also has an average load factor of about 75%.

Schummer says Cargolux anticipates future annual growth rates of 7-8%, which is about equal to adding one aircraft per year. "We constantly change our operating pattern to accommodate growth by changing multiple-stop routes to single-stop routes. We also add more routes and add frequencies on others, and our network is continuously evolving this way. We also sometimes buy block spaces

on other aircraft. This means we do not add a 747 exactly every year. Freight volumes on some routes could get to the point where we need an aircraft larger than the 747, and we are at an advanced stage of studying the A380F and have been involved in its technical development. The missing part of the fleet evaluation equation is what Boeing will do with the development of the 747."

#### Icelandair Cargo

Icelandair Cargo started operations in January 2000 after becoming a separate company from passenger carrier Icelandair. "We are a scheduled carrier, and also use belly space on Icelandair using an annually renewed agreement which splits revenue. We currently operate one 757-200PF and one 737-200SF," says Petur Eiriksson, managing director of Icelandair Cargo. "Our network includes daily flights to Liege, Belgium; three weekly flights to New York; two flights per week to Humberside, UK; and weekly flights to East Midlands, UK and Halifax, Canada. Most of our freight (95%) leaving Iceland is fresh fish, and the remainder is manufactured goods. Freight on our return flights to Iceland consists of vegetables, fruit and consumable goods. We suffered declines in 2001 and 2002, mainly due to the stagnation of fish exports due to fishing quotas. Also, imports into Iceland have declined because of the economy."

Growth resumed in 2003, however, with exports growing by 14% to date and imports by 5%. "This causes a directional by almost a factor of two, although the difference in volume is not as large," explains Eiriksson.

*Lufthansa Cargo wants to keep flexibility in its network, and so would not consider aircraft larger than the 747. It would consider converting its sister airline's 747-400s.*

Icelandair Cargo has recently added new services to Boston, US and also expects to expand its network and is looking at new markets. "We plan to return our 737-300F and have decided to take another 757-200PF because we need larger aircraft," says Eiriksson. "The 757 is also operated by our sister passenger airline and it has good range capability, with only a quarter higher operating cost but twice the payload of the 737-300. We are in serious discussions with lessors about the 757-200SF, and we could add one or two to our fleet. We achieve about 4,000FH per year with our 757, so can make good economics with it. I expect traffic growth to resume, because the economy is strengthening and Iceland's fishing quotas have been increased."

#### Africa & Middle East

Africa has few major freight carriers, but MK Cargo Airlines and Das Air cargo are two examples.

#### Das Air Cargo

Ugandan carrier Das Air Cargo is a private company started in 1983 by a pilot with one 707. The airline has grown and operates a comprehensive network from London Gatwick. "Our route network is basically a triangle between Africa, Amsterdam and Gatwick," explains Andrew Leslie, commercial director at Das Air Cargo. "We also have route rights to Dubai. We operate five DC-10-30s and are trying to lease two MD-11s to add to the fleet. Our cargo out of Africa is mainly flowers, and we have average loads of 66 tons per aircraft, which is a high load factor for the DC-10. Cargo southbound to Africa is all types of general cargo, and we operate from two African hubs at Lagos and Entebbe. We need the MD-11s to give us economies of scale. We have traffic rights in place, since Uganda has an open skies policy. Annual growth is about 7% per year and we have recently added Kuwait and Dhaka to our network. We would also like to add China and various points in the US. We currently interline freight with Continental Airlines at Gatwick, and are the dominant carrier in Africa. We would eventually like to replace our DC-10s with MD-11s, and grow with more MD-11s."



## USA

### UPS

UPS is a major integrator in the US, but started as a ground transport company and added an airline in the 1980s. It has an extensive global network, and carries mainly express packages on scheduled services.

Its air freight network includes a large US domestic system, routes to Latin America, which it inherited from acquired airline Challenge Air Cargo, sectors to Europe, intra-European routes, services to Asia and the Asia Pacific, and an intra-Asian network.

Besides express packages, it carries a wide variety of other freight types.

Besides its many US hubs, UPS also has several international hubs. Cologne, Germany, for example, is its European hub and it operates about 35 aircraft on 25 routes over Europe. It also charters services from other freight airlines.

Other international hubs are the Philippines, Taiwan, Hamilton Ontario and Miami; the latter to serve Latin America.

UPS maintains a policy of operating only jet aircraft, and sub-contracts services to smaller airlines for routes which do not have traffic volumes high enough to fill its smallest jet aircraft, the 727-100. Its jet fleet totals almost 300, and varies in size from the 727-100 to 747-200. Aircraft types in between are the 757-200PF, DC-8-70, 767-300, A300-600 and MD-11. UPS is in the process of taking delivery of A300-600s and MD-11s over an extended period. The company's policy is to increase aircraft size on each route as traffic volumes increase, since there is no benefit

in adding flight frequencies. The airline's least dense routes therefore use the 727-100, and these can be swapped for 757s as traffic volumes increase over time. Similarly, MD-11s and A300-600s can be introduced on routes where traffic volumes have exceeded the size of the DC-8 and 767-300.

The airline now operates nine MD-11s and 30 A300-600s. It has placed a further firm orders for eight MD-11s and 60 A300-600s, with deliveries scheduled out to 2006 and 2011. Moreover, UPS also holds options on a further 18 MD-11s and 50 A300-600s. The airline has enough orders to meet its needs for the foreseeable future.

### Astar Air Cargo

Astar Air Cargo was previously known as DHL Airways. DHL Airways was purchased in July 2003 and has become Astar Air Cargo, which now has DHL Worldwide Express as one of its major customers. Astar now flies for DHL on an aircraft, crew, maintenance & insurance (ACMI) basis. DHL has recently bought Airborne Ground, another freight company. Airborne Ground had airline Airborne Express (ABX) to operate its air freight services for it. ABX is now also an independent airline and provides ACMI services for DHL Worldwide Express. This has resulted in speculation about the possibility of Astar and ABX merging as one carrier.

Besides DHL, Astar also operates for the US Postal Service and the Airmobility command and performs a few charters. The freight carried for DHL comprises express packages and small parcels, and any remaining space in the aircraft is

*UPS has a straightforward fleet policy of replacing smaller types with larger types as freight traffic grows, since there are no benefits in adding flight frequencies. It has large orders and options for A300-600s and MD-11s that can meet its requirements for many years.*

filled with general freight. Astar operates a domestic network to about 30 cities and international routes from a hub at Cincinnati for DHL. The airline operates 40 aircraft, which are a mix of 727-200s, DC-8s and A300B4s. Interestingly, the airline is purchasing 10 727-200Adv freighters from Boeing, which will be used for some expansion but also for replacement of older 727-200s.

### Gemini Air Cargo

Gemini is one of the USA's prominent ACMI carriers. The airline operates a fleet of MD-11s and DC-10-30s on long-term contracts for a mixture of major passenger airlines and freight carriers. It also operates some charters, has various joint ventures and carries freight for the Airmobility Command.

ACMI operations account for the largest portion of Gemini's flying, and it carries a variety of general freight. "Growth rates were double-digit in the 1990s, but we are indirectly rather than directly affected by them, because we are an ACMI carrier," explains Thomas Corcoran, chief executive officer at Gemini. "If the economy is soft then our customers cut back their contracts or there is pressure on ACMI rates."

Gemini's routes are to several cities from Miami and to various points in Asia, including Incheon, Korea which it flies to for Asiana. It also flies some routes for DHL Worldwide Express.

The consequences of freight traffic growth are that more work will be passed on to Gemini from its customers. "Work from DHL and Asiana is more predictable than our business to Latin America. If our contracts grow then we will simply add capacity. As time goes by we will replace our DC-10 fleet, and we are more likely to add MD-11s rather than bigger aircraft. There are initial signs that growth is beginning to resume, and more market opportunities are arising."

### Evergreen

Evergreen was a major ACMI operator, but has evolved into a scheduled freight airline. The carrier operates 10 747s and seven DC-9s, and its main operations are for Airmobility Command, and some charters and scheduled routes on a common carriage

*Evergreen is considering fleet expansion, and could acquire GE-powered 747-200SFs on the used market, but would consider converting 747-400s when values have reduced to a low enough level.*

basis for several freight forwarders.

Evergreen operates from the Middle East to Germany and The Netherlands, provides charters across the Atlantic, and ships high-tech products and apparel from Asia. "We also have scheduled services to Ecuador and are one of four designated carriers to have scheduled services between the US and Brazil," says Tony Bauckham, executive vice president at Evergreen. "We also plan to serve Africa on a scheduled basis, and would like to operate to China, although it is a restricted market because it is hard to get route rights. We could, however, operate to China under a charter agreement or partner with a Chinese airline.

"We have fifth freedom rights from Hong Kong on to Seoul. Overall, we have 168 route rights for scheduled services, but only operate a portion of these at any one time because of seasonal variations, but do use all of them through the year."

Evergreen's fleet includes some old factory-built 747 freighters, and the airline is interested in adding some GE-powered -200s which are already converted. "There is a surplus of these aircraft on the market, but we would also consider converting some aircraft. The conversion programme for the -400 is some way off, and values also need to fall. The -200 suits our current needs. Airmobility Command, for example, has a standard hourly rate for a 747 irrespective of what variant if used. We are looking at getting some more aircraft, and this could be as many as one aircraft per year over the next five years. We would consider -400s, however, when their values have fallen sufficiently. We will add more scheduled routes as rights to operate them become available and will grow our fleet with our network."

## Latin America

Latin America is a region with untapped potential. The countries with the largest economies and highest potential for freight are Brazil, Chile, Colombia, Mexico and Costa Rica.

## DHL Aviation

DHL Aviation Americas operates a network in Central & South America from the USA, as well as to Canada and the Caribbean. Deutsche Post acquired



Danzas and DHL Worldwide Express; Danzas being a major freight forwarder and DHL specialises in express freight. DHL Aviation can therefore be supplied by DHL Worldwide Express and Danzas.

DHL Aviation main freight is DHL's core product of express mail and small parcels. DHL Express can use either third party airlines or DHL Aviation. "DHL Aviation is used in Latin America where there is enough volume to justify our own service," explains Carlos Gamundi, network general manager of DHL Aviation. "We operate air routes of 2.0-2.5 FH with 727-200s. DHL express mail is our core product, but we also sell leftover capacity to freight forwarders at wholesale level. Our routes are mainly to the northern part of South America, and we only go as far south as Ecuador. We operate five 727-200s, two 727-100s and three ATR42s. We use Panama, Guatemala and Venezuela as hubbing points. The ATRs are used for feeder flights on low density routes into these hubs to fill our 727s. We also use connections from third party airlines. Our current operation is very efficient, and we are getting about 2,000FH per year with our 727s, which is high compared to most other operators."

DHL will only consider opening a new air route if it can get enough traffic to fill the aircraft. This may be a case of using third party freight. "One way of growing our network is to change multiple-stop routes to single-stop routes, but it may be cheaper to use another carrier that already flies direct to a destination," explains Gamundi. "We have experienced a growth rate of 20% per year for third party freight over the past two years, and load factors on our 727s are now 70-80%. We have

increased frequencies on some routes, and for example fly six times a week between Guatemala and Mexico."

DHL Aviation does not see a need to add to its current fleet in the short-term. "There is still overcapacity and diluted yields," says Gamundi. "There needs to be equilibrium between buying and selling rates, that is between freight forwarders and freight carriers. We have already added two 727-200s in the past two years following expansion on certain routes. We may add more routes, but we are still able to feed all major cities with our current network and using third party carriers. Economic growth rates are low in many Central and South American countries, and there is little economic activity between them."

## Brasmex

Brasmex is a new scheduled Brazilian carrier, which began operations in November 2002. The airline started charter flights with a single DC-10-30. "We serve the domestic Brazilian market between Sao Paulo and Manaus, and carry mainly car parts and electrical products. We also carry car engines from Belo Horizonte to Turin, Italy on charter," explains Carlos Hamilton, president at Brasmex.

Since its start, Brasmex has had a quarterly growth rate of about 25%, and its long-term plan is to grow by 5-7% per year. "The plan is to operate between Brazil and Luxembourg three times per week under a codeshare agreement with Cargolux. We also plan to operate another three flights per week to the US under a codeshare. We will add two more DC-10-30s by the end of 2003 to cater for this operation. After this we will add



one more DC-10-30 each year as new routes are added. We eventually plan to operate daily flights ourselves to Europe and to the US. We will fly on to the Middle East and Asia from Europe.”

Brasmex's freight is mainly perishables to Europe and returns to Brazil with auto parts and pharmaceuticals. Its plan is to import electronics into Brazil from Asia, assemble these goods and then re-export them. “We have had to negotiate route international route rights, which has been done by lawyers in New York. In the long term we plan to add connecting flights from other South American cities to services in the US and Europe.”

#### Lan Chile Cargo & partners

Lan Chile Cargo, Absa, Masair and Florida West operate an alliance of scheduled freight services. Lan Chile Cargo owns 74% of Absa, which operates as a satellite of Lan Chile. Lan Chile also owns majority shareholdings in Masair and Florida West.

“Absa works under the control of Lan Chile, and Lan Chile does all our planning and other strategic functions,” explains Norberto Jochmann, president of Absa. “Absa's main effort is to concentrate on the marketing activities in Brazil for freight leaving the country for the four airlines in the group. Lan Chile then concentrates on marketing in Chile, and Masair concentrates on marketing in Mexico. Lan Chile and Florida West concentrate on marketing in the US. Absa can therefore offer its customers services to Chile, Mexico and the US. This ability to offer a wide range of services is provided by the other three carriers in the group.”

Absa flies to 12 destinations in Brazil

from Miami, and to Chile and Mexico.

Absa has one 767-300, and has a load factor of 92%. “We have added many routes originating from Miami. These include Bogota, Lima, Manaus and Santiago,” says Jochmann. “The group decides overall how to respond to traffic growth, and is decided by Lan Chile. The group will have to expand over the next two years because of high growth. Absa will take some of this growth, and we would like to take another 767, which will be leased from Lan Chile.”

Masair carries a variety of freight leaving Mexico's main markets. The types of freight are hi-tech goods, electronics, pharmaceuticals, perishables, automotive products and textiles. These are carried by Masair on its scheduled flights. “We started operating to Miami and then later Los Angeles,” explains Juan Torres, commercial director at Masair. “We added various routes, and cover the Asian market via Los Angeles, and Latin America via Miami. We now operate with one 767-300, and also fly to San Jose, Guatemala and Brazil. In some cases annual growth rates have exceeded 30%. Our aircraft utilisation is more than 5,000FH per year. Our market is actually shrinking because Mexican exporters are finding different methods to transport their goods. The best export market is to Europe, which has been growing by more than 25% per year in recent years. We would like to continuously add more routes, and we see the two main opportunities being in Asia and various points like Brazil, Colombia and Venezuela. Traffic to these South American cities currently goes via Miami. We need one more aircraft, either a 767-200 or 767-300, and this will be acquired in the next 18 months.”

*Tampa is one of several Latin American carriers experiencing high growth rates and will develop its fleet with the 767. The airline will take delivery of four in 2004 and one in 2005.*

#### Tampa Cargo

Tampa carries perishables and apparel for freight forwarders on scheduled services to Miami, Bogota, Medellin, Cali, San Juan, Mexico City, Lima, and other Latin American cities. “Flowers are the main perishable, and have grown by 17% each year in recent years,” says Mauricio Londono, vice president of operations and maintenance at Tampa.

Despite its high recent growth rates, Tampa is basing its future expansion on a predicted annual growth rate of 7%, and is looking for other route opportunities in South and North America. The carrier operates five DC-8s, but three are being replaced by four 767-200s. The last two DC-8s will be replaced with one more 767 in 2005, and will add some new routes, while also increasing frequencies to Mexico City and Lima.

#### Estafeta Carga Aerea

Estafeta Carga Aerea is the airline operator for Mexican express freight company Estafeta. More than 80% of the airline's freight is small packages for its parent company, and another 20% is general freight on international flights to Miami and Dallas. All of Estafeta's services are scheduled.

The airline began operations in late 2000, and annual tonnage increased from 8,000 to 20,000 in two years. It operates four 737-200s at night. “We operate various multiple-stop routes to Mexican cities on a hub and spoke system from our San Luis hub. The average stage length in the network is only 250nm,” explains Juan Rodriguez Anza, president at Estafeta Carga Aerea. “Our aircraft are almost at capacity, and we are adding one or two more 737-200s. We will divide our routes into single-stop routes as traffic continues to grow, and we expect growth of 15-20% in 2004. We may eventually lease 737-300s and then go onto larger aircraft like the 757-200 or A310 in 2005. We also want to fly further into the US, and go to Los Angeles, Houston, Atlanta, Chicago and New York, but require 757s for this. We are also considering adding services to another city in Mexico, Panama, El Salvador, Colombia, Ecuador and Venezuela. These countries all have strong commercial links with Mexico.” **AC**