A SPECIAL SUPPLEMENT TO:
Logistics Management

Special Report:
Leading Air Cargo Carriers

Hong Kong calling

World air cargo traffic will triple over the next 20 years, with most of the growth being driven in the Asia Pacific marketplace. Is it any wonder that the biggest players in the industry are investing heavily in the region?

By Patrick Burnson, Executive Editor

In the course of providing a detailed overview of trends shaping air cargo today, the recent World Air Transport Statistics (WATS) report notes that Asia will continue to be at the forefront of the freight industry, expanding at a pace approaching 7 percent by the end of 2029.

A cursory look at WATS figures tells the rest of the story. Of the top 10 international and domestic leaders, only one—Cargolux—is a relatively new player in this marketplace. This comes as scant surprise to the Boeing Company—China's leading provider of aircraft—which maintains that the Asia Pacific region's air traffic growth will exceed the world average by a "large" margin over the next two decades.

Randy Tinseth, vice president of marketing for Boeing Commercial Airplanes, says the region will account for one-third (10,320) of new airplane deliveries worldwide over the period. "This is sweet music to an airplane manufacturer's ears," says Tinseth.

According to Jim Edgar, regional director of cargo marketing for Boeing, China represents 40 percent of the trans-Pacific cargo market, and Hong Kong is a key gateway for air cargo connecting China with the world.

"This area stands to benefit greatly from future increases in air cargo traffic," says Edgar. "Of local interest and in line with the cargo recovery, Hong Kong Air Cargo Terminals Limited announced that total annual tonnage for 2010 hit a new handling record of 2.9 million metric tons, an increase of 24.8 percent over 2009."

Tinseth says that rising cargo traffic is creating pressure for fleet growth. Boeing researchers say that airlines will need 30,900 new passenger and freighter airplanes through 2030, valued at U.S. $3.6 trillion. Forty-four percent of these aircraft will replace older, less efficient airplanes, while 56 percent will account for new aircraft needed to meet air traffic growth. The world fleet is projected to expand twofold from 18,890 to 36,300 airplanes during this span.

"The near doubling of the world fleet size is an indicator that airlines will not only plan for growth, but will take the economically rational step of modernizing their fleets as a hedge against high and unpredictable oil prices," says Tinseth. "The global economic recovery is helping airlines rebuild their balance sheets, leading toward a demand for newer, fuel efficient, and environmentally progressive airplanes worldwide."

Growth in developing and emerging markets, and the need to replace aging fleets, are but two main reasons driving this trend, say Boeing analysts—an observation being echoed by the top air cargo providers.

At the same time, however, some analysts are sounding a cautionary note on this strategy. Charles Clowdis, Jr., managing director of transportation advisory services for IHS Global Insight, says shippers may opt for slower ocean carriage in the trans-Pacific if the economic rebound is not robust.

"Even some high-end consumer goods are moving on water now," says Clowdis. "If this trend continues, air cargo providers may have a hard time getting this volume back."

Scheduled freight tons per mile

INTERNATIONAL			DOMESTIC		
RANK	AIRLINE	MILLIONS	RANK	AIRLINE	MILLIONS
1	Cathay Pacific Airways	9,587	1	FedEx	8,322
2	Korean Air	9,487	2	UPS Airlines	4,979
3	Emirates	7,913	3	China Southern Airlines	1,295
4	Lufthansa	7,422	4	Air China	904
5	FedEx	7,421	5	China Eastern Airlines	713
6	Singapore Airlines	7,001	6	Hainan Airlines	421
7	China Airlines	6,410	7	All Nippon Airways	417
8	UPS Airlines	5,215	8	United Airlines	413
9	EVA Air	5,166	9	Japan Airlines	405
10	Cargolux	4,901	10	Delta Airlines	363

SOURCE: WORLD AIR TRANSPORT STATISTICS (WATS)

"Flat world" strategy

Nevertheless, air cargo leaders maintain that there's no reversing a "flat world" business strategy.

"We all benefit from a world that's more connected than ever," says Fred Smith, chairman, president, and CEO of FedEx. "In fact, the largest economy in the world no longer belongs to a single country but to the realm of global trade. It's driven by emerging markets, such as China and India, and worldwide gains in manufacturing."

Smith says that global trade will continue to be the prime source of growth for FedEx, especially in Asia, where they have the strongest transportation network in the industry. But he's also concerned that his company may be approaching a tipping point, noting that he expects higher margin revenue from international operations to approach—if not eclipse—U.S. domestic revenues at FedEx Express for the first time in its history.

"Our commitment to provide companies of all sizes with access to new markets in every corner of the world has never been stronger," adds Smith. "FedEx not only sits at the nexus of global trade—we are indispensible to global trade."

But does this beg the question: Who isn't? Certainly, UPS must comprise another piece of that pantheon. For Scott Davis, chairman and CEO of UPS, that means a more balanced air cargo relationship.

"When it comes to trade, we're letting other countries move to the forefront," Davis cautions. "What is needed is much stronger economic growth fueled by U.S. exports."

Davis, who is also a member of the President's Export Council, acknowledges challenges facing the U.S., including unsustainable federal deficits and the persistently weak job market. But he counters this by advocating a series of solutions, including:

- *Streamlining export controls.* This

would boost U.S. GDP by $64 billion and create about 160,000 manufacturing jobs over the next eight years. "That's low hanging fruit," says Davis.

• *Passing job-creating free trade agreements* with South Korea, Colombia, and Panama, which he said were "stuck in the mud of partisanship" in Washington.

"We have the means to compete with any country in the world and win," Davis says. "Let's clear away the barriers to exports and let global commerce shift into high gear and create much needed jobs here at home."

Airlines remain optimistic

This bullish attitude seems to be shared by the airlines themselves. "Forward bookings are not showing signs of weakening, and they remain strong…as does overall pricing," says Dahlman Rose investment bank analyst Helane Becker.

At the same time, however, they're managing the sluggish economy with capacity cuts and less competition because of airline consolidation. The most recent was Southwest Airlines acquisition of AirTran Airways.

In the U.S., the industry has gone from 12 major carriers to seven, including the combinations of United and Continental Airlines and Delta Air Lines and Northwest Airlines. But shippers say that this is no cause for alarm. "There's plenty of capacity for existing demand," says Becker.

Brandon Fried, executive director of the Air Forwarders Association, says his constituents are reporting that ocean carriers are relieving the pressure for the time being. "This trend, though, is going to be reversed soon," he says. "This is a cyclical business, and we see high-tech and the fashion industry as drivers for future demand."

Fried also pointed to American Airlines as taking the lead in anticipating emerging markets for high-end perishables in food and pharma. "Maintaining cold chain integrity is going to be key in the recovery," says Fried. The manufacturers of containers and cooling systems are among the most positive players in our industry today. They see tremendous growth in the future."

Which brings us full circle back to a forecast made by that other global mega-manufacturer, Airbus. "The aviation sector is an essential element for today's global economy," says John Leahy, Airbus COO. "Geographically, over the next 20 years, Asia-Pacific will account for approximately 34 percent of demand, followed by Europe (22 percent) and North America (22 percent)."

But tellingly, both Boeing and Airbus are now saying that it's not just about Asia leading the way. Aircraft manufacturers are anticipating a rebound around the world during the next decade.

"Looking back at our forecasts over the past 10 years reveals that our projections for long-term market growth tend to be conservative, compared to actual industry performance," says Tom Crabtree, who oversees Boeing's cargo industry forecasting effort.

Boeing has been admirably accurate, however, on the crucial forecast of the market share that each airplane size category will capture. "High fuel costs are compelling airlines to accelerate replacement of older airplanes," says Crabtree. "In addition, the increased capabilities of the latest long-range airplanes create opportunities for operators to take advantage of the ongoing liberalization of air transport markets to open new nonstop routes." ☐

—*Patrick Burnson is Executive Editor of* Logistics Management

Safety benefits and increased efficiency through greater choice of route selection

The International Air Transport Association (IATA) announced the successful completion of the first iFlex trial between Johannesburg and Atlanta. The iFlex concept provides for a greater and more flexible choice of routes on long-haul operations which cross multiple flight information regions to deliver shorter flight times, improved fuel efficiency, and reduced CO2 emissions while maintaining safety.

With iFlex, airlines will be able to fly more optimum routings that take maximum advantage of wind conditions. While airlines have long planned flights considering wind conditions, air traffic management restrictions often limited flexibility within fixed corridors on parts of routings. The innovation that iFlex brings is the flexibility to extend this practice consistently across the entire journey.

Delta Air Lines reported that the implementation of the iFlex concept between Johannesburg and Atlanta resulted in average time saving per flight of 8 minutes, equating to 900 kg of fuel and 2.9 tons of CO2. Annualized and on the basis of two daily flights, this translates to savings of some 100 hours of flight, 690 tons of fuel and a reduction of 2,150 tons of CO2 emitted.

A more flexible routing structure also provides a safety benefit in that airlines have more options to avoid adverse weather. Routing decisions can be taken at the planning stage to avoid potential tactical en-route deviations that can significantly increase controller and pilot workload.

"This initiative demonstrates just what can be achieved when we work together as an industry to reduce aviation's impact on the environment while at the same time enhancing efficiency and safety," says Guenther Matschnigg, IATA senior vice president, safety, operations, and infrastructure. "We look forward to future successes based on this first trial."

The iFlex implementation did not change existing air traffic management procedures, separation standards or communication, navigation, or surveillance requirements. In certain areas, short cuts (direct routings) given by different air traffic control authorities, on a day-to-day basis, were formalized. This formalization provides better situational awareness for all airspace useres.

—Patrick Burnson, Executive Editor