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hen the first airmail service was established in the United States and in Canada in 1918, the pilots persevered through treacherous weather, flew unsafe equipment, and endured managements that fired airmen for refusing to fly in life-threatening conditions. Following a strike over their working conditions, the U.S. airmail pilots recognized that they needed an organization to protect themselves.

■ Despite being a young pilot at the time, Dave Behncke witnessed the airmail pilots' strike and their fight was at the forefront when he founded the Air Line Pilots Association. The spirit of their struggle resonates to this day in ALPA's motto, "Schedule with Safety."

■ In the pages of this issue dedicated to air cargo, you will learn new details about

challenges that North American cargo pilots face—from the global cargo recession to state-sponsored air cargo airlines in the Middle East. You'll see how ALPA's President's Committee for Cargo is leading the industry in taking on these challenges.

■ While times may have changed, the recognition among cargo pilots that strength comes from determined unity has not. ALPA's cargo members lead and serve within and throughout ALPA's safety, security, and labor relations structure to further our union's efforts to ensure that the North American airline industry can compete in the global marketplace and maintain the highest possible standards of safety and security now and in the future.

—F/O Aaron Hagan (FedEx Express), President's Committee for Cargo Chairman

AIR CARGO ON BOARD AT ALPA'S BEGINNINGS

✓ Cargo Safety Checklist

By Jan W. Steenblik, Technical Editor

In several key areas, all-cargo operations do not benefit from the same safety standards and requirements that long have been in place for passenger and passenger/cargo combi operations. One Level of Safety and Security is the union's overarching goal.

Though efforts to overcome these inequities between passenger and all-cargo operations have been under way for many years, pilots should remember that, for example, the Air Line Pilots Association played a significant role in getting the FAA to require Traffic Alert

and Collision Avoidance (TCAS) II on all U.S. freighters—a decade after TCAS II was mandated for passenger airliners.

On these pages are the Association's top cargo safety priorities, with fatigue topping the list. ➔

✓ End the Cargo “Carveout”!

As relates to flight- and duty-time rules, passenger and all-cargo airline pilots share fundamental constants: The pilot is human, subject to fatigue regardless of the nature of the payload in the back, and deserves rules that provide for his or her safety. Compelling science and common sense make clear that all those who depend on air transportation in the United States will benefit from a standard set of regulations that equally protect all airline pilots from fatigue.

However, the FAA's 2011 science-based flight- and duty-time limits and minimum rest requirements (FAR Part 117) apply only to pilots who fly passenger airliners. The outdated fatigue rules that apply to all-cargo flight operations were developed more than 50 years ago, and they are not based on science.

The United States is home to the most developed air freight operators in the world, and cargo-only flights make up almost 10 percent of domestic airline operations. Cargo pilots fly the same types of aircraft, on the same routes, through the same airspace, and into the same airports as pilots who fly passengers.

The new FAR Part 117 rules tailor the length of the duty period to the time of day a pilot starts work. But current rules

for cargo pilots allow 16 hours of continuous duty, regardless of when the pilot reports for work. Cargo pilots, who often fly through the human performance low period of 2–6 a.m., greatly need the protections of FAR Part 117.

The FAA has acknowledged that cargo pilots were excluded from the rule only because an economic analysis, which ALPA has challenged, placed a lower dollar figure on an accident involving cargo airplanes versus the cost to a cargo airline to ensure the safest possible operations by implementing the rule. Safety should come before economics in combating pilot fatigue.

Given that cargo aircraft share the same airports and airspace as passenger airliners, this sense of priority not only puts cargo flights at risk, but it threatens the travelers and crews aboard passenger flights as well as the communities that surround airports and lie below major flyways.

The Safe Skies Act of 2013 (H.R.182) would require that the FAA's science-based flight- and duty-time limits and minimum rest requirements apply to all airline pilots, regardless of whether they fly passengers or cargo. ➔

ALPA President's Committee for Cargo

In 2001, ALPA created the President's Committee for Cargo (PCFC) to address the unique issues facing cargo pilots. ALPA has long advocated that all-cargo airlines be brought up to the One Level of Safety and Security that the Association has strived to implement for all passenger airlines. The PCFC works within the ALPA structure as an advocate on issues specific to cargo operations.

The PCFC mission is to

- 1 advise ALPA's president on issues specific to cargo operations.
- 2 represent the unique interests of cargo flightcrew members within ALPA.
- 3 provide expertise for safety, security, political, and regulatory issues affecting cargo operations.
- 4 elevate the profile of cargo crewmembers and their importance to the Association.
- 5 provide state-of-the-art resources for cargo pilots and cargo operations. ➔

✓ Remote Ops

In June 2012, Capt. Lee Moak, ALPA's president, created the President's Committee for Remote Operations (PCRO) to address the challenges that ALPA members face on a daily basis dur-



ing flight operations in far northern remote areas such

as the Northwest Territories, Nunavut, and Alaskan locations at the outer fringes of the North American continent. Launching the PCRO was, Moak noted, "an effort to further support ALPA's One Level of Safety and Security concept." With appropriate support and input from ALPA's Engineering & Air Safety Department and Air Safety Organization, the PCRO has been evaluating what

needs to be done and developing the strategy for doing it.

Capt. Peter Black (First Air), chairman of the PCRO, said during the first ALPA Remote Operations Conference, held in Ottawa on May 29, "Ensuring safe operations in remote regions of Canada and the United States affects thousands of flights, and potentially hundreds of thousands of travelers from every corner of the globe. It's neither a local issue nor an issue of limited scope."

Stephen Nourse, executive director of the Northern Air Transport Association (NATA), said of his member airlines during the conference, "We are the bus, the grocery truck, and the ambulance." He added, "Economic opportunities in the north depend on a robust air transportation system."

But the pilots who make that air trans-

portation system work must make do with gravel and ice strips, airports lacking runway end safety areas and other safety improvements, and infrastructure that pilots elsewhere rely on—e.g., proper deicing equipment on the airport, mandatory runway friction measurement and reporting, and proper airport lighting, winter maintenance, standards, and recommended procedures.

Navaid infrastructure "in some places remains near the bare minimum to ensure safe operations, and pilots are facing limited instrument approach capability in most areas," Capt. Dan Adamus (Jazz), president of the ALPA Canada Board, told the conference attendees. These remote airports need GPS and WAAS approaches, and not just overlays of existing circling nonprecision approaches. 🌐

✓ ARFF: What Cargo Needs

Aircraft rescue and firefighting (ARFF) services at airports served by scheduled passenger airlines are required by, and specified in, FAR Part 139, the regulation that governs airport certification. But no ARFF is mandated for all-cargo flights.

ALPA has long maintained that cargo pilots need and deserve

- ARFF capability at all airports during cargo operations,
- Fire services training required to include cargo airliners for on- and off-airport fire departments,
- Onboard active fire-suppression systems in all cargo compartments (FedEx has been very proactive in this),
- Lithium metal battery shipments removed from all airliners (or made safe),
- A single, dedicated emergency radio (DER) frequency for all participants (e.g., ARFF personnel, flight crews, ATC),
- Super Lexan for containers,
- Fireproof roll-up doors, and
- Standardized aircraft and rescue information from cargo airliners to ARFF commands. 🌐



✓ Lithium Batteries

More than 40 incidents of fire, smoke, or heat related to lithium batteries have been documented since 1990. Accident investigators suspect that three freighter hull loss accidents may have involved lithium battery shipments, and an FAA study warns that U.S. airlines alone could lose four aircraft to battery-related fires by 2020.

The United Arab Emirates (UAE) General Civil Aviation Authority (GCAA) on July 25 released its final report regarding the crash of UPS Flight 6 on Sept. 3, 2010, near Dubai, UAE. The GCAA worked closely with its international partners to develop a report on the causes of the accident. The report makes abundantly clear the hazards of transporting large quantities of lithium batteries by air.

ALPA anticipates that rulemaking regarding the air transport of lithium batteries will occur sometime soon. A federal proposal to harmonize U.S. standards for transporting lithium batteries with recent updates to International Civil Aviation Organization (ICAO) technical instructions has received positive support from stakeholders. ALPA endorses a harmonized approach and hails the proposed rulemaking as a significant first step.

ALPA's message is clear: More safety measures are necessary to ensure the safe transport of lithium batteries as cargo—including banning lithium metal batteries on freighters until appropriate fire-suppression methods have been developed and requiring that all lithium batteries shipped by air be fully regulated as dangerous goods. Meanwhile, ALPA has been urging the Department of Transportation's Pipeline and Hazardous Materials Safety Administration to publish a final rule that will harmonize U.S. hazardous materials regulations with new ICAO provisions. 🌐

Undergoing Changes And Challenges

By ALPA Economic & Financial Analysis Staff

Despite a challenging economic environment in the past few years, a recent analysis of the air cargo industry by ALPA staff found that air cargo remains an essential component of world economic growth.

Long-term forecasts show the air cargo market returning to its historical growth rate of 5 percent annually. Many of the air cargo airlines will continue to do well. The need for fewer freighters may become reality as the widebody passenger fleet grows. And the opportunity exists for partnership and innovative marketing as shippers look for new freight handlers with established routes and those with established routes look for airlines that can handle large and odd-sized freight that won't fit into the belly of their airplane. Given this sector's historical performance, it seems clear that most operators will be able to adapt to the changing environment.

Air cargo industry defined

The air cargo segment is a wide-ranging industry with various types of operators, each filling a particular niche of freight demand. The express market, also known as integrated operators, consists of airlines such as DHL, FedEx Express, and UPS, which move mail, small packages, and freight for supply chains' just-in-time delivery needs. Most of the express market airlines transport freight on a scheduled basis.

Nonintegrated freight operators, sometimes referred to as freight forwarders, are those airlines that have strictly freighter airplanes moving specialized, odd-sized cargo on a time-sensitive basis. Much of this type of freight movement is done on an ad hoc basis, on charter flights with no set routes.

Combination carriers are those airlines that have a dedicated passenger fleet as well as a smaller dedicated freighter fleet. These airlines are able to move mail, small parcels, and large freight on a sched-

uled basis using either the belly of passenger airplanes or on dedicated freighters in their fleets. And then there are those airlines whose principal source of revenue is passengers, but who also carry cargo in airplane belly space—which in essence are most passenger airlines.

Air cargo growth tied to international trade

While there are several different segments in the industry, air cargo demand across all groups is closely linked to the global economic environment and, in particular, the level of worldwide international trade. Global economic activity as measured by gross domestic product (GDP) is the principal driver of international trade. As such, air cargo demand, driven largely by trade, has recently proven to be even more susceptible to the economic environment than the passenger airline industry.

In healthy times, moderate annual growth rates in GDP, usually between 3 and 4 percent, will equate to even higher international trade growth. World trade growth averaged 7 percent annually from 1990 through 2007. During most of those years, air cargo traffic grew at a similar 6 percent per year. When the global recession took hold in 2008 and 2009, the air cargo industry took its biggest hit as demand simply bottomed out—at a rate even greater than seen in passenger traffic.

In 2010, as the economy began to rebound, the air cargo market showed a strong return in demand and growth as businesses sought to replenish inventories that suffered from recession-induced production cutbacks. Many assumed the recession dip for the air cargo industry was temporary and the industry would return to its historical growth rates, as the passenger industry did. Current data, however, show that this has not been the case.

While the passenger industry saw some improvement in demand after the

recession, the cargo industry continued to face anemic growth in both 2011 and 2012. Much of the air cargo industry's soft demand stemmed from global economic uncertainty as a result of the Arab Spring uprisings, rising oil prices, the Japan earthquake and tsunami, overheated economies in some emerging nations, and the continued European economic recession.

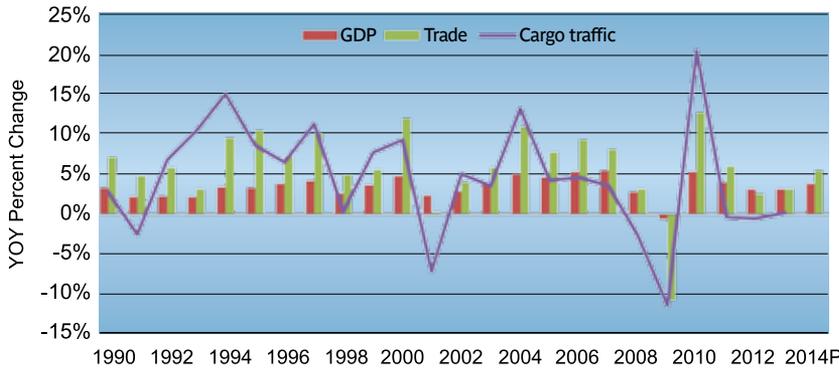
With such political and economic upheaval, it's no surprise that in 2012 world trade volumes grew just 2.5 percent, the lowest growth rate since 1990 (with 2001 being an exception). Of even greater concern, however, is that in 2012, world trade volumes grew at even a lower rate than the world GDP. As a result, some cargo operators experienced dwindling revenues and, for some, lower profits.

Pressures from changing economics and fuel

During the last several years, the passenger industry has had to undertake structural changes to adapt to a challenging and changing environment. These changes eventually allowed many airlines in that sector to achieve a level of sus-

In the June 2013 issue of *Air Line Pilot*, ALPA's Economic & Financial Analysis Department analyzed the structural changes occurring in the mainline passenger industry. Capacity discipline, consolidation, and balance-sheet refocus have helped to structurally alter the passenger airline industry, leading to improved profits despite the poor economic environment and volatile fuel prices. This article focuses on the air cargo sector of the airline industry to explore whether this sector is also experiencing transformation in the face of today's economic pressures.

Chart 1: Cargo Tied to Robust World GDP and Trade Growth



Source: IMF World Economic Outlook Database, April 2013, IATA Traffic Reports, E&FA

tainable profitability, albeit small, in spite of slow economic growth. The air cargo industry now faces its own challenges, and cargo airlines must adapt and evolve in order to thrive. Fuel prices, increased competition, sluggish economic and trade performance, and competition from other transportation modes are a few of the challenges that the air cargo industry is facing.

Fuel price volatility has plagued both the passenger and cargo industries for the past several years. Cargo airlines imposed fuel surcharges in an attempt to recoup some of these increased fuel costs. However, as the price of oil nearly tripled from 2004 to 2013, many freight customers also opted for other modes of transportation to offset these price increases. Container shipping proved to be an attractive alternative to air transport. The cargo capacity of container ships has grown more than 225 percent since 2000, and more ships are traveling the trade lanes as well, driving down per-unit container costs. With lower prices and greater geographic coverage, the container shipping industry has become a significant competitor to air cargo.

In addition, the worldwide advancement and proliferation of telecom-

munications has lessened the need for documents and small parcels to be moved by air cargo. A weak economy has also forced consumers to seek lower-cost methods of transport, including relying less on overnight shipments. These various business changes are forcing the air cargo industry to adapt and evolve.

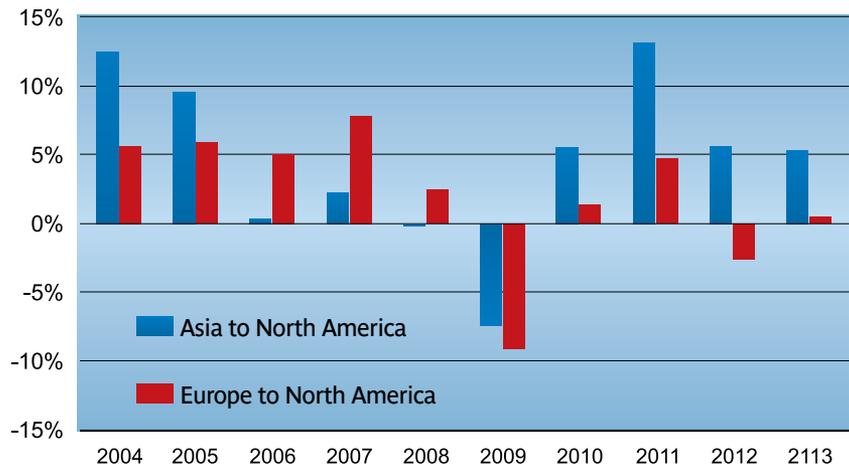
Air cargo industry responds

Given the fractured nature of the air cargo industry, adapting and responding to challenges and the changing environment will vary by grouping and will elicit different results across the sector. To date, combination carriers and express airlines have both managed to adapt to the new environment and meet these challenges with varying strategies.

Recent Fiscal Year 2014 first-quarter results for FedEx Express showed continued margin improvement over last year.

Express airlines have been successful in instituting fuel surcharges, which combats some of the oil price inflation. As the need for overnight documents and mail is replaced by electronic measures,

Chart 2: Change in Frequencies On Popular Trading Lanes



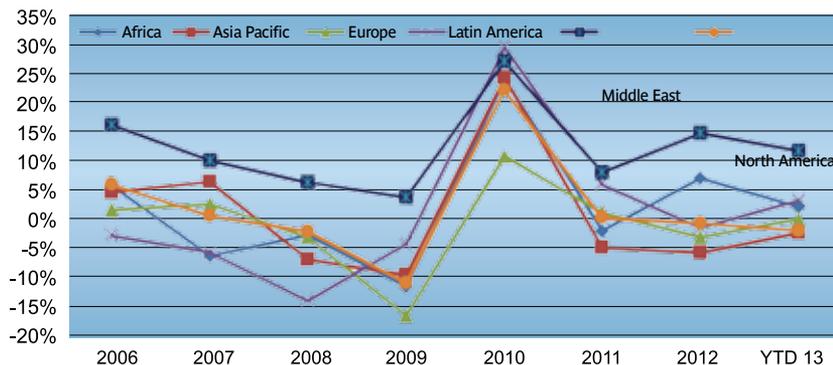
Source: OAG, E&FA Analysis

express airlines have sought to adjust their capacity to handle larger freight for a different customer base. In fact, FedEx Express recently was awarded two Department of Defense contracts worth \$221 million. In addition, data from Air Cargo Management Group show that express airlines have increased both the average weight per shipment and their daily shipment volumes since 2010.

Even passenger airlines are adapting their air cargo needs. Many of the passenger airlines that carry cargo are modernizing their fleets. New airplane designs and manufacturing components are helping airlines become more fuel efficient. Mainline passenger airplanes are now not only larger but also lighter, carrying more cargo while being fuel efficient. Many combination carriers are rethinking their need to maintain large freighter fleets and instead are relying more on belly space on widebody passenger jets.

In addition to acquiring newer airplanes, major airlines have repositioned their capacity to take advantage of the growth in certain markets. This growth has added significant capacity in some of the biggest trading lanes around the globe. One example is the growth in the number of flights from Asia to North America in the last five years. Passenger airlines operate nearly 58,000 flights a year from Northeast and Southeast Asia to North America. The growth rates on those routes, an increase of nearly 40 percent since 2004, far outpace growth rates on Europe to North America routes, which have seen a 17 percent change since 2004. The increased number of flights, often on widebody airplanes that have greater belly-cargo capacity than the airplanes they are replacing, translates to a significant increase in capacity for the air cargo market on the largest, most lucrative routes. It probably comes as no surprise that capacity growth has a significant negative effect on pricing power and profitability.

Chart 3: Middle East Cargo Traffic Has Been Growing Faster Than Other Regions Since 2006



Source: IATA, Monthly Traffic Reports

Regional trade differences are also affecting the air cargo market. Cargo airlines are performing better in emerging economies and in those areas that are experiencing strong economic growth. The Middle East, for example, has seen freight traffic grow by nearly 12 percent during the first half of 2013, compared to 0.2 percent for the whole industry. It's not surprising then that Emirates is now the largest airline of international freight in the world, surpassing FedEx Express last year. Of course, Emirates has

experienced irrational state-subsidized growth across all sectors, and the United Arab Emirates' pro-airline policy makes it hard for many, including U.S. airlines, to compete effectively. Other regions that are experiencing larger growth than the rest of the industry include Africa and Latin America.

Despite the recent declines seen in Asia, that area's airports are still experiencing strong cargo traffic, with Hong Kong ranking as the busiest cargo airport in 2012, followed by Memphis and Shanghai, according to Airports Council International.

Load factors (the percentage of cargo capacity that is full) for all-cargo airlines have been historically low compared to passenger load factors. And with the ongoing added capacity from belly space, load factors have fallen even farther. Although cargo load factors have recently begun to stabilize, they still remain quite low as capacity continues to increase through passenger business. Deliveries of widebody airplanes with greater belly-hold capacity will have increased by more than 11 percent in 2013 compared to 2012, according to the International Air Transport Association, expanding the existing widebody fleet by 6 percent this year alone.

Adjusting capacity to demand ultimately determines whether the industry

Despite the recent declines seen in Asia, that area's airports are still experiencing strong cargo traffic, with Hong Kong ranking as the busiest cargo airport in 2012, followed by Memphis and Shanghai, according to Airports Council International.

Chart 4: Cargo Load Factors Remain at Weak Levels

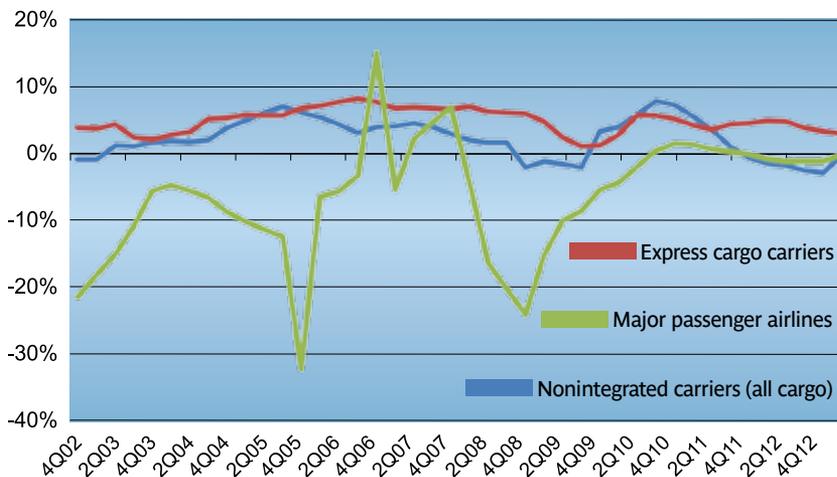


Source: IATA Traffic Reports, E&FA Analysis

and, more specifically, an airline is profitable. Changes in cargo volumes will affect cargo airlines differently. For those combination carriers with passengers

and cargo, the decline in cargo volumes is less noticeable, as additional yield from cargo is secondary to the gains that passenger yields have generated in

Chart 5: Cargo vs. Passenger Airlines Pretax Margins (Rolling Four Quarters)



Source: BTS, P1.2, E&FA Analysis

Note: Nonintegrated carriers are all U.S. cargo carriers, except for FedEx Express and UPS; express cargo carriers are FedEx Express and UPS only; major passenger airlines are American, Delta, Continental, United, and US Airways.

the last few years. While express airlines have been affected by a poor performing economy, higher fuel costs, and less reliance on overnight deliveries, they have successfully adapted by adding fuel surcharges and seeking additional markets. Cargo airlines that operate heavy freighters on a charter or as-needed basis and those that provide military charters will have the hardest time absorbing any declines in cargo volume.

Just like the passenger airline industry, cargo operators have faced challenges adapting to a changing environment. Yet air cargo airlines have historically been resilient. A review of financial results in this sector shows that air cargo airlines usually manage to outperform the passenger sector. This historic performance is a positive indicator of what this industry can expect in the future.

Cautious but optimistic outlook for air cargo

Today, the current outlook for the cargo industry is cautious but optimistic. World trade is once again expected to grow beyond the world GDP in both 2013 and 2014. The Purchasing Managers Indexes for many countries have shown an upward momentum recently, and signs of improving economic trends are coming from the United States and Europe. A decisive indicator for growth in the second half of this year and into 2014 will be the level of demand for new Asian-manufactured goods, especially electronics. New routes to interior China will become a major focus for all-cargo airlines, as growth in that country continues to outpace all other areas. Competition for the cargo traded between China and North America and Europe and China is expected to grow. Middle East airlines continue to market themselves as a hub, especially between Asia and Europe, making many European airlines reevaluate fleet plans and operating routes.

MIDDLE EASTERN CARGO CARRIERS:

Fully Loaded for More 'Phenomenal' (Heavily State-Backed) Growth

By Capt. Scott Stratton (FedEx Express), Master Executive Council Chairman

In addition to hosting great bands and even better barbecue contests, this year's "Memphis in May International Festival" highlighted Memphis's ties to the country of Sweden. As part of the festival, the Memphis Chamber of Commerce invited a Stockholm Chamber of Commerce policy adviser to visit the city. When asked his favorite part of the trip, the adviser told the Memphis Chamber's newsletter, "The FedEx hub was a fascinating visit, if not the most fascinating business operation I have ever seen."

As Memphis business leaders touted the FedEx headquarters facility and the city's economic ties with Stockholm, officials at Emirates, the heavily state-backed Middle Eastern carrier, were carrying out plans to begin operations between the Swedish capital and Dubai on September 4.

UAE government's vast support of air cargo

"The United Arab Emirates attaches great importance to the travel and tourism sector," said Sheikh Mohammed Bin Rashid Al Maktoum, the vice president and prime minister of the United Arab Emirates and ruler of Dubai, in the Emirates Group's 2012–13 Annual Report. "It is an integral part of implementing the country's strategy for building a sound and sustainable economy."

A clear demonstration of Dubai's vision for economic sustainability, the Dubai World Central (DWC) development project will include six clustered zones such as Dubai Logistics City, Commercial City, and Aviation City, which will eventually feature the world's largest airport—Dubai World Central. The DWC development project will become the region's first multimodal transportation platform and has been estimated on the

DWC website to cost in excess of US\$32 billion.

The Al Maktoum family governs the Emirate of Dubai and plays a significant role in charting the course of Emirates. The uncle of the current ruler of Dubai is Sheikh Ahmed Bin Saeed Al Maktoum. He serves as chairman and chief executive of Emirates Airline and Group; president of the local regulatory body, the Dubai Civil Aviation Authority; and chairman of Dubai Airports, which owns and operates Dubai's airports—Dubai International and DWC. He also chairs other highly influential Dubai government committees, including the Department of Oil Affairs and the Emirates National Bank of Dubai.

The country's long-term vision for economic sustainability, its national commitment to the success of its airline industry, and its extraordinary intra-governmental collaboration, as evidenced by Ahmed Bin Saeed Al Maktoum's multiple roles in its polity, clearly benefit Emirates' business operations. However, the pro-aviation business climate in Dubai specifically, the United Arab Emirates generally, and in other Middle Eastern countries such as Qatar, also results in tangible competitive advantages for their airlines, including operating free of home country corporate taxes and the ability to fly large, new, fuel-efficient widebody airliners. Moreover, those airlines are eligible to purchase them with below-market financing rates through the U.S. taxpayer-funded Export-Import Bank of the United States.

The strategy has proven enormously effective for Dubai, where aviation currently supports 28 percent of the emirate's gross domestic product. The advantage that Emirates and other Middle Eastern state-backed airlines gain from this pro-aviation business climate is

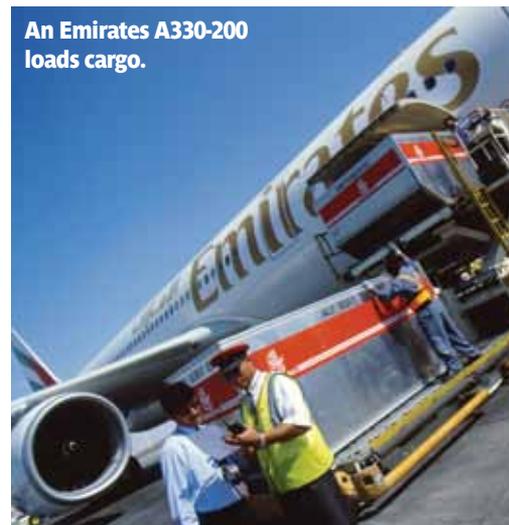
readily apparent in first-half 2013 balance sheets, route maps, infrastructure, and aircraft hangars.

Phenomenal growth of Middle Eastern airlines' infrastructure and fleets

"Our phenomenal growth has helped make Dubai International Airport the fastest-growing airport in the world, as measured by annual seat capacity growth, and the world's second-busiest airport for international passenger traffic, overtaking Paris's Charles de Gaulle Airport for the first time," said Sheikh Ahmed Bin Saeed Al Maktoum in the company's annual report. "Dubai International Airport currently handles more than 58 million passengers per year, and that number is expected to jump to more than 65 million by the end of 2013. Emirates SkyCargo is slated to move its operations to Dubai World Central next financial year to ease congestion."

In July 2013, Emirates announced that construction had begun on Emirates SkyCargo's state-of-the-art terminal and supporting facilities at DWC. The

An Emirates A330-200 loads cargo.



700,000-square-meter cargo terminal is slated to become the home of Emirates' freighter operations beginning in May 2014.

While freight volumes at DWC fell in the first six months of 2013, an organization fact sheet attributes the drop to stabilization of earlier rapid growth that took place in the first few years of the airport's cargo operations, which began in June 2010. In 2012, DWC handled 219,000 tonnes of air freight, an increase of 144 percent over the 90,000 tonnes recorded in 2011.

DWC states that, once complete, the facility will have a final cargo capacity of 12 million tonnes per annum. In comparison, Hong Kong, the airport with

Emirates SkyCargo's overall expansion and growth program," said Nabil Sultan, Emirates divisional senior vice president of cargo. He added that "the move does not include passenger fleet belly-cargo operations, which will continue to operate from Dubai International Airport. The terminal will have an initial capacity to manage 700,000 tonnes of cargo per annum, which can be expanded to meet future growth."

In the nearby emirate of Qatar, Doha-based Qatar Airways Cargo in May added three new Airbus A330-200Fs to its fleet of seven freighter airplanes including B-777Fs, according to a company news release. Qatar Airways Cargo is deploying the A330-200Fs on routes such as

Chief Cargo Officer Ulrich Ogiermann.

Ethihad Airways, which is the UAE's national airline, continued to achieve its strongest growth through its cargo division, carrying 215,000 tons in the first half of 2013 compared with 175,000 tons in the first half of 2012, according to a company news release, a 23 percent growth for the first half of the year.

The growth in cargo volume at Etihad Cargo was reinforced by the delivery of three new freighters: one A330-200F, one B-777-200F, and the company's first B-747-8F. Its cargo operations were further enhanced by increased passenger services, providing more under-floor freight capacity.

ALPA takes action

State sponsorship—and the resulting wholesale economic and policy support—that certain foreign airlines receive provides a significant and unfair competitive advantage over U.S. and Canadian companies. ALPA and the FedEx Express Master Executive Council (MEC) maintain that our industry must not—and, indeed, cannot—allow such disadvantages to continue to threaten U.S. airlines and their workers. The current global economic environment, in which foreign governments back their airlines with billions of dollars and pro-aviation policies, must challenge the U.S. government to back U.S. and Canadian airlines with equal enterprise. For North America to maintain a world-class airline industry, our governments also need to compete with their foreign counterparts, just as our cargo carriers and airlines do, with airline industry and air cargo policies that allow our airlines to prevail in the global marketplace.

The FedEx Express MEC, together with ALPA, is working to pursue federal policy and legislative solutions to level the playing field so that North American cargo carriers and their pilots have a fair chance to compete on the world economic stage. Armed with a recent policy resolution that the FedEx MEC unanimously passed, the FedEx Legislative Affairs Committee is joining forces with ALPA's national officers, other ALPA MECs, ALPA's Government Affairs staff, and, when appropriate, airline managements in Washington, D.C., and around the country to urge U.S. business leaders and policy makers to recognize the threat and take swift action. 🌐



Qatar Airways Cargo's first Boeing 777F seen landing at Chennai International Airport, India.

the world's largest cargo volume for the 12 months ending in May 2013, handled 4.095 million tonnes, while Memphis International's cargo volume was 4.062 million tonnes during the same period, according to an Airports Council International website report.

In addition to constructing state-of-the-art facilities, Emirates is greatly expanding its freighter fleet. In March 2013, Emirates SkyCargo added another B-777F to its fleet, which currently includes two B-747-400ERFs and eight B-777Fs, according to the airline's website. Over the next few years, Emirates will add five B-777Fs to its fleet as part of the airline's total order of 192 additional passenger and cargo aircraft.

The airline now operates scheduled freighter service to 44 destinations, 34 of which are European destinations, including Viracopos, Brazil; Lyon, France; Khartoum, Sudan; Stockholm, Sweden; and Hanoi, Vietnam.

"The planned move of our freighter operations from Dubai International Airport to Dubai World Central – Al Maktoum International Airport is the next step in

Doha-Amsterdam and Doha-Colombo. The airline currently serves more than 40 freighter destinations worldwide via its Doha hub and also delivers cargo to more than 125 destinations on more than 122 passenger airplanes.

"The arrival of the A330-200F comes at a time when Qatar Airways Cargo undergoes significant development and growth," said Chief Executive Officer Akbar Al Baker. "The opening of our brand-new US\$1 billion cargo facility at Hamad International Airport later this year will see Qatar Airways Cargo handle 1.4 million tonnes of cargo annually, more than tripling the capacity of the existing facility."

In July 2013, Qatar Airways Cargo began operating a twice-weekly direct freighter service from Milan to Chicago and back to Milan. "With our new Chicago-Milan sector, we will see an additional 200 tonnes of capacity added weekly to the freight we ship out of Chicago, demonstrating our commitment to further strengthening our business and the services offered to our clients in the region," said Qatar Airways

WIKIMEDIA

SEPARATE BUT NOT EQUAL:

Air Cargo Security Warrants Greater Industry Attention

By John Perkinson, Staff Writer

On Oct. 29, 2010, a plot was uncovered to conceal plastic explosives and detonating devices in packages aboard two cargo airplanes bound for the United States. Two boxes containing computer printers had slipped past airport controls and screeners but were being detained enroute—one in northern England and the other in Dubai, thanks to a Saudi intelligence tip-off. The source of the lead, Jaber al-Faifi, was a former Guantanamo Bay detainee who had completed al-Qaida rehabilitation training but had opted to surrender to Saudi authorities.

Addressed to synagogues in Chicago, the parcels were originally sent by terrorists through FedEx and United Parcel Service offices in Yemen. The packages had traveled through four countries on at least four different aircraft, two of them carrying passengers. Upon closer inspection, the explosives were discovered, hidden within printer cartridges. Each contained at least 10½ ounces of the powerful explosive PETN. Analysts speculate that the packages were designed to be detonated in mid-air in order to destroy the aircraft somewhere over the eastern United States.

“It is time for the shipping industry and the business community to accept the reality that more needs to be done to secure cargo planes so that they cannot be turned into delivery systems for bombs targeting our country,” said Rep. Ed Markey (D-Mass.), shortly after the incidents. Recognizing a regulatory double standard, the congressman continues to press for needed changes to bring all-cargo airline security requirements in line with those of passenger operations.

“Air cargo is more vulnerable to security breaches,” agrees Capt. Fred Eissler (FedEx Express), ALPA’s aviation security chairman and his pilot group’s Master

Executive Council (MEC) Legislative Affairs Committee chairman. He acknowledges that despite the issuance of the May 2006 final rule on air cargo security requirements, and the many positive safeguards that have resulted, much more needs to be accomplished.

Capt. Scott Stratton (FedEx Express), his pilot group’s MEC chairman, notes,

tions the airline industry must take to better defend itself. The report aptly points out that in the period since 9/11, cash-strapped passenger airlines have outpaced more profitable all-cargo airlines in adding new security measures. Clearly, those authorizing these actions understand that the expense of implementing them is easily offset by the possible cost



FO IAN THOMPSON (FEDEX EXPRESS)

Those who seek to sidestep security protections have repeatedly demonstrated that they are intelligent and adaptive. As part of ALPA’s One Level of Safety and Security campaign, the Association continues to work with government and industry stakeholders to promote a layered approach to address existing gaps and inadequacies.

“Actionable items that further strengthen cargo operations are needed. We have had more than a decade of discussions. The time for concerted action is now, before we witness another tragic event. Although cargo and passenger flights have some operational differences, ALPA remains committed to the principle that all airline operations must be conducted to the same high level of safety and security, regardless of any unique operating aspects.”

In August 2011, ALPA issued an updated white paper titled “Recommendations for Improving the Security of All-Cargo Operations,” outlining additional ac-

in company resources, human life, and the other collateral damage that can result from an attack.

Those who seek to sidestep security protections have repeatedly demonstrated that they are intelligent and adaptive. As part of ALPA’s One Level of Safety and Security campaign, the Association continues to work with government and industry stakeholders to promote a layered approach to address existing gaps and inadequacies. To achieve this objective, ALPA outlines specific steps the industry must take to help minimize risk and bolster all-cargo operational integrity. 

Installing reinforced cockpit doors

Congress is contemplating a requirement for all airlines—passenger and all-cargo—to install secondary cockpit barriers, which ALPA supports. However, ALPA has long called on government to also mandate the installation of hardened or reinforced cockpit doors (RCDs) on all freighters, and to require continued crewmember training on appropriate door access procedures.



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Reinforced doors are necessary because cargo airplanes have no additional operating crewmembers outside of the cockpit. Installing RCDs allows for the layered defense of the cockpit, with the operating crew being the last line of defense. Express freight airlines often transport third-party personnel, called supernumeraries, such as couriers and animal handlers. Even though these individuals are vetted by a protocol acknowledged by the federal government, they can go unmonitored during flight, whereas flight attendants can observe individuals on passenger flights. Additionally, those who seek to stow away on all-cargo flights could enter the supernumerary area. RCDs can greatly improve the defense of the cockpit. [▶](#)

Cargo screening based on threat/risk

The Transportation Security Administration (TSA) has outlined two scenarios that provide the greatest security risk to cargo airlines: the hostile takeover of an airplane with the intent to use it as a weapon, and the introduction of an explosive device with the intent to disrupt operations. To combat these threats, ALPA recommends a threat-driven, risk-managed approach, using the latest technology and procedural solutions.



TSA

Even though the TSA mandate has been in effect since the end of last year requiring that all foreign-borne air cargo be screened, millions of tons of air cargo are transported every day and screening methods and protocols must be applied strategically to identify high-risk shipments before they enter the supply chain. New X-ray screening devices using six-color imaging and atomic number recognition are in place at some locales; however, this equipment is expensive and just one of many considerations.

Stakeholders are experimenting with the Air Cargo Advanced Screening (ACAS) system, which is designed to identify potentially threatening shipments at an early stage in the overseas supply chain. ACAS allows airlines and freight forwarders to send and receive advance security filing data using an automated targeting system managed by U.S. Customs and Border Protection. However, ACAS is still a test project and will need formal approval before it can be widely applied. [▶](#)

Mandating SIDA at all air cargo airports

In addition to properly vetting employees, the application of security identification display area (SIDA) protocols must be extended to all airports that cater solely to air cargo operations. The lack of SIDA procedures at these facilities makes them much easier targets for unauthorized individuals who wish to breach restricted areas.

SIDA protocols call for authorized identification displays, defined entry and exit procedures, clearly outlined perimeters, and other security processes. In addition, those with access are subject to fingerprint-based, criminal history record



CHRIS WEINER

checks. Capt. Sean Cassidy, ALPA's first vice president, spoke about this to the U.S. House Subcommittee on Transportation Security last year, emphasizing, "Full SIDA requirements must be mandated for all airports serving FAR part 121 all-cargo operations." [▶](#)

Properly vetting individuals with unescorted access

ALPA maintains that anyone with unescorted access to cargo areas or cargo airplanes must first be subjected to biometric, criminal history record checks, including fingerprinting for identity verification. This is not currently required of the majority of individuals who have access to cargo operations areas.

The U.S. Federal Bureau of Investigation has publicly announced that it does not support biographic, name-based security threat assessments for these jobs because this system has a greater probability of approving false identifications. With the proliferation of online recordkeeping, identity theft remains a growing concern. And without confirming the true identity of an applicant, the likelihood of effectively assessing an individual's character or trustworthiness is highly suspect. The TSA's proposed vetting of all involved employees at certified cargo screening facilities would be a positive step forward. [▶](#)



CAPT. INDI KOHLBACHER (FEDEX EXPRESS)

SECURING THE Skies

Aviation Security a Dozen Years after 9/11



Airlines for America
We Connect the World

ALPA and Airlines for America (A4A) are cosponsoring a conference titled “Securing the Skies: Aviation Security a Dozen Years After 9/11,” to highlight aviation security enhancements implemented since 9/11 and to discuss new challenges.

Scheduled for October 17 in Washington, D.C., the conference will feature presentations and panel discussions addressing the risk-based security revolution, U.S. Customs and Border Protection Preclearance facilities, cyber security of the U.S. national airspace system, and flight security improvements and challenges. Transportation Security

Administration Administrator John Pistole will serve as keynote speaker. For more information and to attend “Securing the Skies,” please visit seureskiesconference.alpa.org. Look for coverage in the November issue of *Air Line Pilot*.

Last year, ALPA hosted “Air Cargo Safety and Security: Closing the Gaps,” a conference that brought together representatives from the Association, Congress, the FAA, the TSA, the NTSB, and other stakeholder organizations. Together these groups compared the safety and security differences between passenger and all-cargo airlines. ↻

Requiring security training

Passenger airline flight crews and ground personnel are required to attend Common Strategy security training; but for their freight counterparts, offering All-Cargo Common Strategy training is at the discretion of the airline. This inconsistency must be corrected. Failure to include this training diminishes the ability to properly secure airplanes and work with existing resources to respond to threatening circumstances.

In addition to training, all-cargo flight crews should routinely receive TSA security directives and information circulars so that they can adequately perform their responsibilities as inflight security coordinators. All of this information should be included as part of the Full All-Cargo Aircraft Operator Standard Security Program. ↻



FFDO program

Other air cargo security concerns include the continued development and promotion of the Federal Flight Deck Officer (FFDO) program, and the effects that an extended sequestration could have on future FFDO funding.

An FFDO aboard an all-cargo flight is the last line of defense of the cockpit. No other protocol or piece of equipment can achieve what this program provides all-cargo crews. Unlike passenger airlines, cargo crews are manned with very few operating members, and seldom, if ever, is anyone outside of the cockpit. The FFDO, in conjunction with the RCD, allows the crew to preserve the integrity of the cockpit and safely get the airplane to a secure location. “The FFDO is the single most important facet of the layered defense of the cockpit for all-cargo airlines. Cargo operations do not have the luxury of emboldened passengers, flight attendants, or the Federal Air Marshal Service to guard against intrusion into the cockpit,” states Eissler. ↻

In addition to training, all-cargo flight crews should routinely receive TSA security directives and information circulars so that they can adequately perform their responsibilities as inflight security coordinators.

Situational Awareness— A Security Mindset

By Jim Andresakes, Security Supervisor, ALPA Engineering & Air Safety Department

Airline pilots fly people and cargo to far-flung domestic and international destinations every day while maintaining the highest level of safety. This success is due in large measure to vigilance and an ingrained safety mindset that help shape a pilot's decision-making process.

Situational awareness is a critical part of the safety mindset. Being vigilant during flight operations enables pilots to reach their destinations safely day in and day out.

Likewise, pilots must be vigilant in order to protect their personal security. The recent kidnapping of two Turkish pilots in Lebanon and the U.S. State Department's worldwide travel warning and embassy closures remind us that ongoing personal vigilance is essential. An article by the global intelligence company Stratfor (stratfor.com) on this subject includes several observations and recommendations, summarized here.

Security situational awareness consists of being aware of one's surroundings and recognizing potentially dangerous situations and threats. The first element of security situational awareness is understanding that threats can exist anywhere at any time, even in the most seemingly benign circumstances. Complacency, apathy, and even denial create victims, not victors.

Recognizing and being prepared to take appropriate actions if a threat appears, in whatever form, is critical. Overrelying on others (e.g., the company, the police) to come to one's aid in the event of trouble is a setup for failure. Everyone should take personal responsibility to look out for themselves and those dear to them to the greatest practical extent.

A person's gut reaction, or intuition, should not be overlooked or ignored. Feelings of danger should prompt one to take appropriate action, not continue on as though these feelings do not exist.

Military and law enforcement training often includes instruction on four distinct levels of security situational

awareness (see sidebar).

Maintaining these differing states of situational awareness evokes distinct physiological responses from the body. As we escalate our awareness and preparedness to respond to circumstances from "tuned out" to "high alert," heart rate, breathing rate, and blood pressure will increase proportionately. Additionally, as our state of awareness increases, we will experience a corresponding increase in fatigue and a decrease in the amount of time we can successfully sustain advanced levels of awareness.

If we are not careful to maintain situ-

at the controls" of their airplanes in emergency situations because they are very well prepared to handle virtually any problem that may arise. These same skills can be applied to threats that we may encounter in our everyday lives by being prepared in advance to look for and appropriately respond to security emergencies—and by learning to control our breathing, which in turn affects heart rate, blood pressure, and mental awareness.

An individual does not have to be a security expert to develop a security mindset. It only requires a general awareness of

Four Distinct Levels of Security Situational Awareness

1. Tuned out—Being oblivious to one's surroundings may be fine while watching TV in the family room but very dangerous when in an unfamiliar part of a city at night.

2. Relaxed awareness—A state of mind similar to that used by a professional pilot during normal cruise flight. The individual is constantly looking for potential problems and ready to act on them. This is the optimum mindset for the vast majority of one's waking hours.

3. Focused awareness—A pilot must elevate his or her focus during those phases of flight that require a sterile cockpit. Similarly, an individual's awareness and readiness to act should also increase based on the perception of potential threats to personal security.

4. High alert—When an airplane abruptly and unexpectedly leaves a desired state, a pilot's mental focus goes on high alert, and he or she will act immediately to counter whatever caused the undesired change. Similarly, a security-conscious individual confronted by a direct threat to his or her well-being will also go on high alert and take immediate action. 🔍

ational awareness and presence of mind while responding to escalating threatening circumstances, the body's natural physiological responses may overtake our capability for rational thought. In this undesirable state, we experience loss of fine motor skills and an inability to respond, in effect, being paralyzed by fear. Airline pilots are able to avoid "freezing

one's surroundings, being up-to-date on current events, and using good judgment to assess the potential for harm. 🔍

■ *Jim Andresakes serves as ALPA's security supervisor. Before joining ALPA in 2002, Andresakes had a 28-year law enforcement career, and then managed a legacy airline's corporate security department.*