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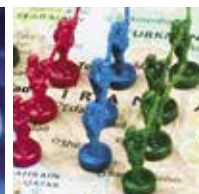
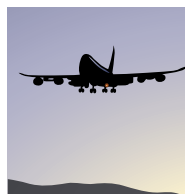
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# Looking Ahead...



**A**s the interim President of CNS it is my pleasure to write the introduction to this Fall edition of Focus. The articles in this edition report on both the current state of our industry and what we might expect from the future.

For most in this industry 2012 will go on record as being a year of low or no growth. A strong start to the year brought us some early optimism which has since faded away. A flurry of excitement around the recent launch of the new iPhone 5 will bring a welcome boost to some, but the general consensus seems to be no significant peak season this year.

As economies in Asia, the US and Europe continue to struggle with recovery business will need to remain agile if it is to capitalize on the limited opportunities that may appear in 2013. Presence in Emerging markets, Niche markets and spectacular Customer Service are likely to be the common traits of successful companies in 2013.

Volatility in fuel prices plus continued capacity growth from next generation aircraft will continue to put downward pressure on yields. As these two key components are generally beyond the control of the air cargo department the focus will once again turn to controlling costs.

In my role as IATA's Global Head of Cargo as well as your acting President I will continue to work for measures that support your cost containment efforts. We will continue to push for harmonized, risk based security assessments as well as working to simplify our industry processes and information flows with our e-AWB and e-Freight goals. Additionally we are progressing with the POC for the e-consignment security declaration.

Our colleagues in Cargo 2000 continue to support your delivery of that high quality service that your customers will be looking for. I make no apologies for mentioning these projects once again as I firmly believe that they all have the capacity to deliver important cost reduction opportunities to our industry which can make a real difference going forward.

In closing, I would like to take this opportunity to record the thanks of the CNS Board and its Members for the great job done by Michael Vorwerk in his tenure as president. His departure has left us a challenge to find a suitable replacement, but I will have more news on this in the coming months.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Des Vertannes', with a long horizontal line extending to the right.

Des Vertannes  
Global Head of Cargo  
IATA

**As always if you have comments and opinions on this edition of Focus or suggestions for topics to be covered in future editions we are always pleased to hear from you. You can reach us via e-mail at [remmern@cncs.us](mailto:remmern@cncs.us). This publication is also available online at [www.cncs.net](http://www.cncs.net).**



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Hello Tomorrow



**Emirates**  
**SkyCargo**

# Demystifying the Global Air-Cargo Cherry Pie

By George Leposky, Freelance Journalist

**T**hink of the air-cargo industry as a huge cherry pie, with slices representing trade flows within and between regions of the globe. When you take slices out of the pie, where do the cherries along the margins come to rest now? Will the results be different five years hence?

To answer those questions, the air-cargo industry relies upon trend forecasting, a complex but necessary undertaking. Airlines need such information to plan their fleets and route systems several years in advance, to provide the capacity their customers will need. By the same token, present and prospective customers plan their future logistics based in part on expectations of future air-cargo capacity. Everyone wants to know what parts of the global pie are poised to gain extra cherries and what parts will stay the same or lose cherries.

These predictions of relative growth, stagnation, and shrinkage rely upon a broad world view, encompassing political and economic developments and trends on a regional basis and within individual nations.

Many potential variables exist. One that seems to have strong predictive power is gross domestic product. "It's a nice correlation," says Remo Eigenmann, Global Head of Air Freight for Damco, part of the A.P. Moller - Maersk Group. "If GDP is growing, air freight is growing, too."

For example, the International Monetary Fund says the U.S. economy, the world's largest, will increase from almost \$15.7 trillion in 2012 to more than \$19.7 trillion in 2017. That's a lot of money, but it reflects an annual average growth rate of just 5.2%. The U.K.'s economy, ranked seventh, will grow only slightly better – at a 5.5 percent annual average rate. By comparison, China's economy, second only to that of the U.S., will swell from almost \$8.3 trillion in 2012 to \$13.2 trillion in 2017 – an annual average growth rate of 12%.

One can test this correlation by comparing the IMF's GDP estimates for 2012 and 2017 with trade lane share data from Aviainform, a market research and consulting firm in Frankfurt, Germany. Dirk Steiger, Aviainform's managing director, says projecting the year-on-year variation in trade lane shares from 2011 to 2012 over the next five years discloses significant trends that resemble the IMF trends.

## Asia Will Dominate

Asia now dominates the world air-cargo market, and that dominance will intensify, Steiger says. The market share for cargo moving between Asia and Europe, and between Asia and North



America, will ebb or flow slightly. Meanwhile, the share of the market within Asia rose from 20.9 percent in 2011 to 21 percent in 2012, presaging continued strong growth through 2017.

"The intra-Asian market has gained market share over past three to five years, accelerating each year," Steiger says. "That reflects air-cargo activity within China itself; links between China and Korea, Japan, and Thailand; and intra-Asia service to and from Hong Kong."

Within Asia, Eigenmann says, current production sites for manufactured goods are becoming more expensive and losing their relative competitiveness. "In China all the traditional production sites were gathered along the [Pacific Ocean] shore, from Beijing and Shanghai down to Hong Kong. Now production is moving inland, where the labor cost is much lower. Also, there has been a trend to move away from China to Bangladesh, but now in peak times Bangladesh can experience congestion. Customers are looking for production sites where they can avoid such congestion."

Meanwhile, air-cargo movement between Europe and North America – now about 10% of the global total – will continue to increase slowly, while internal activity within both continents will decrease.

Together, movements of cargo within and between Asia, Europe, and North America account for about two-thirds of global air-cargo trade, with "a strong concentration on a limited number of airports," Steiger says. He cites Airports Council International statistics that show just 35 of the 1,900 ACI member airports capturing half the global air-cargo flow.

## The Rest of the World

Africa, Latin America, and the Middle East will see market-share growth at the expense of the North American and European markets, Steiger says. "Freight volume is growing globally, but it's growing faster in other parts of the world than in the United States and Europe,



where air freight has to compete against trucking services."

Within those emerging regions, Eigenmann says Mexico and Turkey will become increasingly competitive in terms of production pricing thanks to the growing popularity of "near-shoring" – locating production closer to North American and European consumers.

The IMF ranks Mexico as the world's 14th largest economy in terms of GDP, and says it will grow from \$1.2 trillion in 2012 to \$1.5 trillion in 2017, an average annual increase of 5.62 percent. Mexico City, Monterrey, and Guadalajara have an extensive industrial base, while maquiladoras along Mexico's northern border receive components and raw materials from the U.S. for assembly and then send the finished goods back to the U.S.

Eigenmann cites Turkey as "a super example" of the near-shoring strategy. The IMF ranks Turkey 18th in GDP with \$783.1 billion in 2012, and anticipates an increase to \$1.2 trillion in 2017, an average annual increase of 9.88 percent.

"Turkey is interesting as a production site, as a hub into Europe and North Africa, and also as an upcoming consumer market," he says. "It is strategically extremely well positioned. Straddling the border between Europe and Asia, it can play an extremely big logistical role. Turkey is about to understand the importance of its location and turn it into a very good business model. Turkish Airlines is growing as an ambassador of this newly created strength and self-confidence that Turkey has something to offer to the rest of the world."

Eigenmann says Ethiopia, despite a subsistence economy and periodic famines, appears poised for growth as a regional industrial center for eastern North Africa. The IMF ranks Ethiopia 87th in GDP with \$41.8 billion in 2012 and says it will grow to \$65.5 billion in 2017, an average annual increase of 11.28 percent.

"Ethiopian Airlines is very strong and would like to be seen as serious about being a logistical hub in that part of the world," Eigenmann says. Also in Ethiopia's favor are expansion of a seaport next door in Djibouti, and upgrading of a rail line linking Addis Ababa with the seaport.

## Critical Factors

Around the world, manufacturers continue to explore production locations offering an optimum balance of high production quality, low production cost, and rapid time to market at a suitable transport cost.

As ships become faster, more goods travel by sea, Steiger says, but the "gadget market" – devices such as the iPhone 5 with short production and development cycles to meet or beat the competition – still relies heavily on air freight.

"Every day the world is buying about eight million cell phones," he says. "With more applications, more demands in memory and speed, people are forced to buy a new gadget every year or every

second year. A cell phone may cost \$250 and weigh 250 grams, for a commercial value of about \$1,000 a kilo. That's a perfect commodity for air-freight services."

Air freight also is ideal, he says, for general industrial products, such as automotive components and medical equipment, which can be assembled or manufactured for less money in a foreign country and for which time to market is crucial due to a competitive situation. This also applies to perishables such as fish, fruits, and vegetables.

Rapid time to market also is essential for consumer products, such as textiles and fashion goods, which come into style on a short cycle and are prone to quick obsolescence. Previous generations ordered from printed catalogs and accepted a delivery time measured in weeks. Now we order on a computer screen and expect overnight delivery – or in some places even same-day delivery.

"Manufacturers will follow the price tag," Steiger says. "We will see a shrinking price tag for air freight over the next five to 10 years. "This can only happen because your costs for aircraft are less with only two providers, Airbus and Boeing. We will see demand for travel and air cargo increasing, a higher level of competition, and larger aircraft coming into use that can accommodate more cargo."

"Now a Boeing 777 passenger plane with belly cargo can accommodate as much cargo as an old Boeing 707 freighter was able to carry. In a full-freighter configuration, with just two engines, a 777 can fly farther with more payload and fuel efficiency than a 747-200 with four engines. Because of the high level of competition, the airlines are forced to pass on those savings to their customers."

Eigenmann says air freight still costs about 10 times as much as ocean shipping, so customers are exploring intermodal arrangements that combine air freight with ocean, rail, and/or truck shipping. "Say you have this amount of fashion goods moving from Hong Kong to Hamburg," he explains. "We can model price, carbon dioxide emissions, and time on an origin-to-destination basis and calculate different modes of transport."



# MID-LIFE CRISIS?

How the air cargo industry's transition from growth to maturity will impact shippers, forwarders, airlines and industry suppliers over the next decade



By: Brian Clancy and Richard Holohan, Partners, Logistics Capital & Strategy, LLC. ("LogCapStrat")

**I**t is official – the global air cargo industry has now reached middle age. At a recent investor conference in Memphis, Fred Smith, Chairman and founder of FedEx, described a massive structural transformation in the global air express and freight markets triggered by permanent shifts in shipper demand. Within North America and Europe, customers are diverting overnight air to ground deliveries at an accelerated rate. In intercontinental markets, air shipments are increasingly switched to sea freight. Shippers seek to maintain profit margins for their products as retail prices decline. This is not a cyclical trend, it is permanent.

FedEx outlined a detailed plan to preempt the transition: Older aircraft will be replaced with more fuel efficient new aircraft. Increased non-stop flights in the intercontinental network will simultaneously improve service and lower round trip fuel burn. Real-time information will optimize delivery routes, facilitate labor scheduling for hub handling facilities, and enable bundled pricing for customers across multiple modes and service types. FedEx's response is significant, and it has a far reaching impact on the structure of the industry. The rest of the industry needs to consider the long-term strategic implications of this transition and develop a proactive plan to take action.

Why is this happening? We believe that a collision of several long term structural trends has created an environment that is forcing the transition. Ironically, all of these industry trends have been followed at conferences and in trade journal articles over the past ten years. The

impact of each trend, however, is now significant enough, in absolute terms, to make a difference.

## U.S. and European consumers are less able to spend

The US and EU-27 together represent \$24 trillion (69%) of \$36 trillion of global consumer spending. Air express and freight import flows to the U.S. and EU-27 represent 50% of 20 million intercontinental tonnes. Additionally, an estimated 50% of imports to Asia (35% of total air import flows) are upstream feedstock for finished goods destined for US and EU consumption. We hypothesize that – due to income growth constraints and rising health care costs – consumers in the U.S. and Europe will not have the same spending power as in the last decade. We can expect that over the next ten years we will see fewer purchases of discretionary products at lower price points. As a result, there will be less volume to be transported, and shippers will use cheaper modes of transport to compensate for lower selling prices. It will be very difficult for faster growing ("BRICs") emerging markets to make up for the absolute decline in spending over the next decade even using the average growth rates over the last decade. The "economic decoupling" argument made three years ago, which assumes that emerging market countries would trade each other without dependence on developed economies, was simply not true, as 68% of global import air trade growth is driven by final consumption in the U.S. and EU-27.



## Fewer higher value technology product shipments

The global high tech industry is experiencing significant structural change as tablets and smart phones cannibalize desktop and laptop computer sales by offering better functionality in a more efficient form factor. This inter-product competition has forced a significant selling price stratification where consumers purchase ultra-cheap PCs on-line for their homes and use the savings to buy significantly more expensive iPads and iPhones. Compounding the problem is the impact of product miniaturization as semiconductors, integrated circuits and disk drives become more compact, denser and more susceptible to transport in passenger aircraft bellies.

## Sustained high jet fuel costs

The jet fuel market is global and even during times of slow economic growth, prices remain high due to increasingly escalating extraction costs and regional political instability. Jet fuel will not get much relief from the North America “shale gas boom” because it has had little effect on retail prices due to refinery capacity constraints (partial reason for Delta’s refinery purchase) in the Midwest and limited pipeline infrastructure to deliver oil to unconstrained refineries along the Gulf or east coast. The result is a global trading range for oil between \$80-120 per barrel over the next decade, sustained high jet fuel prices and a rising gap between air freight prices relative to other modes.

Our hypothesis is these trends have triggered long-term changes in the size and structure of the global air cargo industry. The specific impact of these trends includes:

**Declining air freight share of global trade flows** – The decades-long trend of air freight capturing a rising share of intra-regional and containerized trade flows will reverse as ground and ocean carriers offer increasingly sophisticated and reliable time-definite products with a fraction of the fuel cost of aircraft.

**Tightening air cargo supply/demand balance for freighter capacity**– Volatile demand and high fuel prices will force the early retirement of dozens of relatively fuel-inefficient freighters, causing air freight supply to fall even faster than demand and giving the surviving airlines more pricing power than they have today. Belly capacity will provide a majority of future supply due to rising cargo capacity per seat and will transport up to half of all intercontinental demand – up from 40% in previous years. Shippers and forwarders will continue to benefit from an abundance of belly capacity on mature routes outbound from North America and Europe. The biggest capacity changes will come in the freighter segment where we estimate that a portion of bottom quartile of the non-integrated carrier freighter supply curve will exit the market resulting in fewer carriers with larger fleets.

**Increased long term competitive advantage for global integrated carriers that is enabled by their multi-modal service portfolios**

**and technology integration** – DHL, FedEx and UPS are positioned to increase their share of the stagnant air freight market, and – by virtue of their well-developed trucking networks in North America and Europe – also to capture time-sensitive traffic diverted to time-definite ocean services.

On the following pages, we will elaborate on our hypothesis and provide supporting evidence and analysis. The necessary starting point is industry definition.

## INDUSTRY DEFINITION

There are two basic business models in the air cargo industry: integrated and non-integrated. Integrated carriers own or exclusively control the assets, employees and information systems necessary to offer unbroken custodial control from the time a shipment leaves the shipper’s facility to the time it arrives at the consignee’s location. In contrast, non-integrated competitors consist of freight forwarders who arrange door-to-door transportation and rely on airlines to haul shipments from airport to airport.

The industry’s primary service is door-to-door transportation, and the typical value chain contains four links: pick-up, consolidation, line-haul and delivery. Industry competitors employ one of two business models: vertically integrated networks and non-integrated networks. Vertically integrated network carriers operate and/or control local pick-up and delivery, intercity air linehaul transportation and shipment handling in a closed loop network. The non-integrated network consists of freight forwarders and airlines working together to provide shippers door-to-door service. Carriers provide airport-to-airport transportation to forwarders on a wholesale basis and forwarders act as general contractors to shippers by purchasing and managing all of the elements required to accomplish door to door delivery.

The continuum of service types, shipment sizes and primary customer segments varies for each combination. The range of services consists of scheduled door-to-door and airport-to-airport transportation, charter services and aircraft wet leasing. The shipment size spectrum includes transactions ranging from a few kilos moving as a small package up to a full airplane load. Shippers mainly purchase door-to-door services in kilo or pallet quantities. Forwarders purchase pallets and occasionally partial or full planes. Carriers are customers for ACMI wet leases of full aircraft.

DHL, FedEx, TNT and UPS are the “big four” global integrators which collectively control over 70% of the intercontinental air package market using their integrated networks as a source of competitive advantage. The integrators also compete with regional parcel companies, postal authorities and freight forwarders for small package shipments in large and small country markets. Integrators enjoy advantages from economies

*continued on page 10* ➤

of scale from pick-up and delivery stop density, aircraft size, sort facility handling automation, advertising and information technology. However, regional parcel and postal competitors compete effectively because of even higher network efficiencies and pricing power in their home markets where they have dominant share. Forwarders are able to compete with integrators for small packages by offering cost-effective solutions to price elastic shippers, especially when transit time commitments can be extended.

As their volumes have grown, integrated carriers have moved up the shipment weight spectrum and have captured share from freight forwarders in the small package segment. Integrators are invading the lower end of the air freight segment as their cost to serve falls with increased network size and density. This structural advantage has allowed integrated carriers to compete based on a balance of price and service levels for air package shipments and selectively cherry-pick freight forwarder air freight shipments in markets where they have excess capacity.

Freight forwarders control 90% of the retail sales channel for heavy air freight shipments. The heavy freight market is less concentrated than the small package sector: the top 20 forwarders carry 68% of the total intercontinental air freight tonnes, and the top 20 airlines transported 65% of total traffic in 2011. The rise in forwarder concentration has been driven by numerous cross-border mergers and acquisitions over the last five years, completed under the assumption that larger forwarders are more attractive to customers because of greater geographic scope and increased ability to make investments in information technology. Carrier capacity concentration has also been increasing due to changes in passenger belly fleets towards smaller aircraft, reduction in flight frequencies and bankruptcies of all cargo carriers due to high fuel prices.

We estimate that the global air cargo industry transported 175 billion FTKs (freight ton kilometers) of traffic in intercontinental markets in 2011. This consists of 20 million tonnes that were transported an average of 8,750 kilometers. The intercontinental air cargo market was only 2% of the size of container shipping market when compared in tonnes, reflecting the fact that very few products can afford to pay the premium prices for air service.

The geographic distribution of air freight is similar to that of containerized ocean traffic. Asia is the main manufacturing base for products that have a propensity to use air cargo services, both because of the product types and distance to the main consumption markets in Europe and North America, and is the single largest origin region. The Transpacific market has a directional imbalance of almost 1.66 to 1 while the Asia to Europe market is less imbalanced with a front haul of 1.30 to 1. On an aggregate basis, north-south markets linking North America with South America, and Europe with Africa appear almost balanced, but, in fact, are imbalanced on a country-by-country basis which requires carriers

to operate triangular routing patterns to improve route trip load factors.

Globally, the high tech industry was the single largest end-user segment of air package and freight services in 2011 with 27% share followed by capital equipment and related spare parts with 19% and apparel and footwear with 17%. The commodity mix varies considerably across air trade routes. In the Eastbound Transpacific market, high tech shippers generate 36% of total demand and apparel the next largest with 31% share. Asia to Europe has a similar pattern as the Transpacific where high tech goods are 32% of the total and the next largest segment are apparel shippers with 22% of the market. Flows into Asia from North America and Europe consist mainly of capital equipment to support Asia's manufacturing infrastructure, high tech components for final product assembly and intermediate material inventory to feed production lines. Fresh fruits, vegetables and seafood are the primary commodities originating in Latin America to North America. Market penetration of perishable goods is also high in the Latin America to Europe and Africa to Europe markets reflecting the importance of year round growing seasons along the equator and contra seasonal harvest seasons in the southern hemisphere which allow growers to supply consumers in North America and Europe with fresh produce during the Northern Hemisphere winter.

## SHIPPER MODAL CHOICE DECISIONS

Historically, shippers have paid a premium to use air package and freight services, which can be 10-15 times more expensive than surface transportation on a unit volume basis, because the time-place utility achieved by the speed and reliability of air transport more than offsets its high cost. Shippers arrive at this conclusion by explicitly or implicitly using some form of a total distribution cost framework. The goal is to minimize total distribution costs by making trade-offs between transportation mode and inventory carrying costs. The decision is often not binary and requires determining the right mix of modes on a specific set of origins and destinations ("O&Ds") that best optimizes the total landed cost of the product mix being transported.

There are two types of end user customers for air package and freight service: planned users and emergency users. Based on past shipper surveys, we estimate that split between planned and emergency users is 50/50. Specific reasons for segment uses are summarized below:

### Planned users:

- High value/weight ratios
- Physical perishability
- Economic perishability
- Small shipment cost indivisibilities

### Emergency users:

- Economic process impairment
- Transportation service failure recovery

We estimate that products with high value-to-weight ratios make up 30% of total and 60% of planned user demand for air cargo services. These shippers can afford to use air cargo because its higher cost is offset by significantly lower inventory carrying costs relative to surface transportation. The complication is that product life cycles across all industries are compressing and the weighted average value of high tech and apparel products continues to decline with progressive globalization. Consider the example of the eastbound Trans-pacific market between 2002 and 2011. In the aggregate, the rate of air penetration of total containerized trade has fallen by more than one-third, from 4.1% in 2002 to 2.6% in 2011. The weighted average unit value of products being shipped by air has risen from \$77 per kilo to over \$100 per kilo during the same time period, which provides further evidence that the bottom end of the demand curve has diverted to sea freight. Video monitors, DVDs and non-digital cameras made significant shifts from air to sea freight over the last ten years as retail prices fell in response to competition that was enabled by lower production costs in Asia. The impact of generalized product price deflation will continue to depress the rate of air cargo growth regardless of the price of oil. However, its impact will be greater as the price of oil rises.

Shippers of physical perishable products face an even more challenging supply chain cost problem because most of their products already have low unit values, and they must use air cargo because of limited shelf life. Examples include products such as strawberries, cherries, fresh seafood, and cut flowers. Three things will happen: some shippers will stop exporting to certain markets due to high air freight costs, others will attempt to pass on the costs with higher prices to retailers, and a lucky few will take advantage of new refrigerated sea containers that are able to keep certain types of product fresh for long periods thus enabling modal diversion from air to sea.

Shippers that have used the reliability of air cargo to manage the economic perishability of their products due to short selling windows and high demand forecast error now have the option to use new time definite LCL and

FCL sea freight services offered by various competitors. The wholesale pricing of the new services is approximately 25-30% of air freight and have the same level of reliability, albeit with longer transit times.

Small shipments, weighing less than 68 kilos, will continue to use air package services since the minimum charges for sea freight are purposely set high to discourage these types of shipments as forwarders lack cost effective methods to handle and deliver small packages in the air or on the ground.

*continued on page 12* ➤



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The emergency use segment is essentially price inelastic because the economic cost of impairing a broader process far exceeds the cost of air cargo. The most common emergency is when a large, capital-intensive economic process will be shut down causing significant economic losses because a spare part or component inventory did not arrive on time. Examples of such emergency use include manufacturing line shut downs due to lack of specific components, aircraft on ground awaiting replacement parts or an expensive advertising campaign ruined by not having key marketing collateral distributed in time for a big promotional event. Emergencies will always occur but the definition of what constitutes an emergency will change with rising oil prices.

Overall, we expect traffic flows to continue steady migration from air to ocean, led by the switching of planned air freight shipments to time-definite ocean service. Emergency shippers do not have a choice and will have to continue to use air cargo.

## ASYMMETRIC IMPACT ON AIR TRADE MARKETS

Overall, we forecast that the rate of growth of global air cargo FTKs will increase from 3.7% per year over the last ten years to 4.9% for the next ten years (2011-2021) and slow to 4.3% from 2021 to 2031. Our demand metric, FTKs, has two dimensions: originated weight and length of haul. Originated weight demand will grow slightly faster averaging 4.8% per year and a 0.2% decrease in average length of haul over the next 20 years.

For the twenty-year period from 2011-2031, we forecast a 4.6% annual growth for combined intercontinental, inter-regional and intra-regional air express and freight demand. In comparison to other widely tracked forecasts, such as those published by the airframe manufacturers themselves, LogCapStrat's forecasted growth rate is lower. Indeed, Airbus forecasts global air freight to grow by 4.9% annually between 2011-2031, and Boeing recently revised its 20-year forecast downward from 5.8% to 5.2% per year. LogCapStrat's air freight traffic forecast takes a comprehensive view of global supply chain networks, which accounts for shippers' increasing sophistication to cope with higher unit transportation costs, and the expansion of more reliable surface transport options. As detailed above, air freight growth will be impacted by shippers who have the knowledge and opportunity to lower their transport costs by shifting away from air freight to other, less costly alternatives. To appreciate the dynamics of the air cargo industry, it is interesting to compare growth rates on a directional trade route basis. The eastbound transpacific will grow at 5.0% per year reflecting a rebound in consumer spending in 2014-2015, and westbound demand, heavily influenced by the cheap dollar, will grow faster averaging 6.0% per year between 2012 and 2021. Asia to Europe will grow slower at 4.0% per year due to the continued consumer deleveraging that will continue over the next five years and

the backhaul market from Europe to Asia will grow faster, averaging 6.2% annually as China and other Asian economies GDP growth return close to the long term trend-line. The eastbound Trans-atlantic market will struggle over the next five years, as Eurozone consumer demand slowly rebounds resulting in only 2% growth between 2012-2021. Europe to North America will grow slightly faster averaging 2.5% per year. Intra-Asia market growth, which is partially driven by final product demand in North America and Europe due to intermediate component flows, will average 6.5% growth each year.

Intra-regional markets in North America and Europe are mature and will derive all of their future growth from the domestic portion of an intercontinental shipment's journey ("DPICJ"). Intra-North America will average 1.0% growth over the next ten years with domestic traffic growing only slightly at 0.3% per year due to truck modal substitution and DPICJ will grow faster at 8.0% per year benefiting from continued emergency shipping in intercontinental markets and the need to use at least one leg of the domestic air network to get to destination. The intra-Europe air package market, due to its compact economic geography relative to the U.S., will actually experience a contraction of -.25% per year of intra EU volumes as packages continue to shift to trucks but overall DPICJ will grow at 7.0% helping total intra Europe network traffic to average .5% over the next ten years.

## NEW INDUSTRY SUPPLY CURVE

The increase of oil prices has caused jet fuel to become the largest component of a passenger or all cargo airline's cost structure averaging between 35-40% of total costs on a fully allocated basis. This has caused several mixed fleet, all cargo airlines and ACMI carriers to ground their most fuel inefficient aircraft, shrink network capacity by as much as 15%, suspend or delay certain international routes and file for bankruptcy. Belly capacity as % of total lift will actually increase in all of the three major markets due these changes.

Freighters will continue to be important to the global air cargo network because when measured on a FTK-basis, freighter aircraft transported 63% of total traffic in 2011. We estimate that 530 large widebody freighters were deployed in the major intercontinental markets in 2011 with 146 flown within an integrated carrier network, organically or ACMI carrier operated, and 384 operated by airlines. Large aircraft have payload capacities above 80 metric tonnes and include: MD-11F, 777F, 747-200F, 747-400F and 747-8F.

As older MD-11 and 747 aircraft are retired due to significantly higher fuel consumption and rising maintenance, carriers will have to make replacement decisions. The two primary dimensions of choice include: aircraft size in terms of payload/range versus new build or conversion. In our view the logical replacement aircraft for low demand

*continued on page 14 ›*





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markets is the converted 747-400BCF freighter which is competitive in a wide range of fuel prices and utilization levels. We believe that the clear winner is the 777-200F which has the largest area of competitive advantage in terms of fuel prices and utilization combinations. This is a key reason why FedEx and DHL have elected to use the 777-200F as the backbone for their intercontinental linehaul networks over the next two decades. We believe that the 747-8F is a special mission aircraft that requires very high utilization levels to be profitable which means the aircraft will be deployed in mainly the transpacific and Asia-Europe markets. The trade-off between aircraft size on the front haul versus total trip cost minimization on the backhaul will take on increased importance when looking at the combined impact of growing directional imbalances. This trend of increasing imbalances will, all else equal, lower round trip load factors and sharpen carriers' focus on the cash expense of flying empty aircraft on the backhaul re-positioning flight. We believe that these two factors will favor the 777-200F over the 747-8F and the 747-400BCF and the advantage could become even more pronounced if air downgrade to sea freight accelerates.

The accelerated retirements of older freighters should tighten the supply/demand balance for freighters in the next couple of years as older freighters will be retired faster than the drop in demand as a result of higher fuel cost. Replacement options for these retired older freighters is growing as new conversion programs, like the A330-200P2F, come to market to meet demand in faster growing regional markets driven by emerging economies and natural resource production.

The bad news is that the market for small freighters, defined as less than <40 tonnes, is limited to replacing aging aircraft with no new growth. The reason is that 55% of all small freighters used today are within one of the big four integrated express networks, and that the future fleet strategy for these carriers is to replace 727-sized aircraft with larger 757 freighters to drive down unit costs due to economies of aircraft size and reduce the network footprint of cities served by jets. Over time, the integrated carrier networks will become less air intensive and deploy significantly fewer small freighters.

## STRATEGIC IMPLICATIONS

Our view is that the integrated carriers are the big winners in three ways: they will further improve their market position in intercontinental small package, divert the highest yield emergency air freight shipments away from airlines, and re-capture downgraded air freight demand with their vast ground package and LTL networks in North America and Europe. Essentially, they are structurally hedged in the intercontinental market. Their challenge is managing the air to ground diversion within the largest regional networks.

Freight forwarders will manage modal substitution of planned air freight users by re-capturing pallet-sized shipments as LCL sea freight or consolidated FCL shipments. Net revenue margins per kilo will

likely drift down forcing forwarders to explore new initiatives to reduce unit costs. They will continue to maintain some share of the emergency air freight market.

Non-integrated airlines that operate belly capacity always will have pricing flexibility due to the passenger revenue subsidy of flight costs. Carriers that can afford fuel efficient next generation freighters and successfully implement their fleet replacement cycle will benefit from an industry with fewer competitors operating larger aircraft with relatively low unit costs. Freightier airlines, including ACMI carriers, that have based their fleet strategies on low capital cost used aircraft and cannot afford to replace their fleets will be forced to exit the industry.

For shippers, one obvious implication is that air freight will become more expensive as weaker carriers and excess capacity are squeezed out by high fuel prices. The rise in prices will drive more and more shippers to accept higher inventory levels in order to reduce "emergency" air freight shipments and to make wider use of time-definite ocean services.

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IST VIE	TK 6317	..3....	13:40	16:10
VIE IST	TK 6318	..3....	17:40	00:15

Apart from the Turkish Airlines belly-hold cargo capacity, Turkish Cargo provides weekly scheduled freighter services from 35 destinations all via Istanbul.



# Africa: A New Growth Driver of Global Airfreight

By Georges Van Hove, Corporate Airfreight Director, SDV USA, Inc.

**W**ith one billion people and an average economic growth of 5% per year, Africa has become one of the most attractive regions for international investors. Continuous increases in raw-material prices, major investments in the telecom sector and infrastructures, and growth in personal expenditures on consumer goods will become powerful vectors to the continent's emergence.

The main import and export flows have naturally evolved parallel to this economic boom. From 2001 to 2011, the global air-cargo volumes directed to Africa have more than doubled to reach one million tons annually. European countries are the key suppliers to Africa, and their primary customers are in South Africa, Nigeria, and the Maghreb countries. However, Asia is gaining an increasingly important role in international trade on the continent, and its market share in global airfreight increased from 10% in 2001 to 16% in 2011. Diversification of African supplies also benefited the United States, generating 8% of airfreight to Africa today.

SDV, a subsidiary of the Bolloré Group, is a global player in supply-chain management, ranking among the world's top 10 in transport and logistics with a global network spanning 93 countries and 540,000 tons of airfreight shipped annually. SDV has developed a strong leadership position in Africa where it employs 23,000 professionals in 45 countries, areas where they have very extensive resources in land-based logistics.

The complexities start from the port or the airport of destination. A thorough knowledge of each country and a land-based system of transport corridors are powerful assets for managing the supply chain from end-to-end, especially in landlocked countries such as Chad or Niger. It's particularly the case for a Chinese leader in telecom for whom SDV operates integrated logistics from a control tower located in Shenzhen, China, toward 30 African countries relying on multimodal transports (ocean, air, and road) and its regional distribution platforms.

As an experienced airfreight agent in the African market, SDV is a close trading partner with airfreight companies that have a strong presence on the continent, namely Air France-KLM, Cargolux, and Brussels Airlines. African airlines with all-cargo scheduled flights such as Avient or Allied also count significant market shares between Europe and the African continent.

New players have surfaced in Africa representing some of the best growth potential in the world. Prominent among them are the Gulf companies, Emirates Cargo, Etihad, Saudia Cargo, and Qatar Airways. These companies considerably improved their capacities when European markets were experiencing the full impact of the economic slowdown on this very same continent. Now, they receive a new Boeing 777 every

fifteen days! Emirates Cargo has recently announced their intention to increase freight capacities by 40%. Therefore, they turned to Africa in order to use these available capacities. Air links have increased out of Dubai, Abu Dhabi, Sharjah, Doha, and Riyadh and to the largest African cities of Nairobi, Lagos, and Johannesburg. Competition has become much stronger regarding routes to the Middle East.

African companies such as Ethiopian Airways and Kenya Airways are also among the newcomers and contribute to the development of freight capacities in Africa. For the short-term, though, Air France-KLM's leadership does not seem to be threatened. In fact, the density of their network acquired over the past 10 years gives them a unique advantage to play the role of a "milkman." Their network is also in tune with SDV's needs given their widespread coverage on the African continent. Air France-KLM and Cargolux are not the only companies in Europe to show their ambitions to develop in Africa – Lufthansa and its subsidiary Swiss also want to be part of the game. In addition, among the European players, DHL (Express) stands out by being an airfreight company and a freight agent at the same time, with an established network from its hub in Lagos.

The US airlines have not yet been much involved in this part of the world. Delta is present in Africa, but solely on a limited number of stopovers such as Dakar, Lagos, and Johannesburg. American Airlines has already recognized that Africa is nonexistent in their network map index. Out of the 73,000 tons of airfreight shipped in 2011 from the United States to Africa, 30,000 were intended for South Africa, 10,000 to Nigeria, and 5,000 to Angola. These two oil countries remain two major markets for the firms in the oil-and-gas industry in the US.

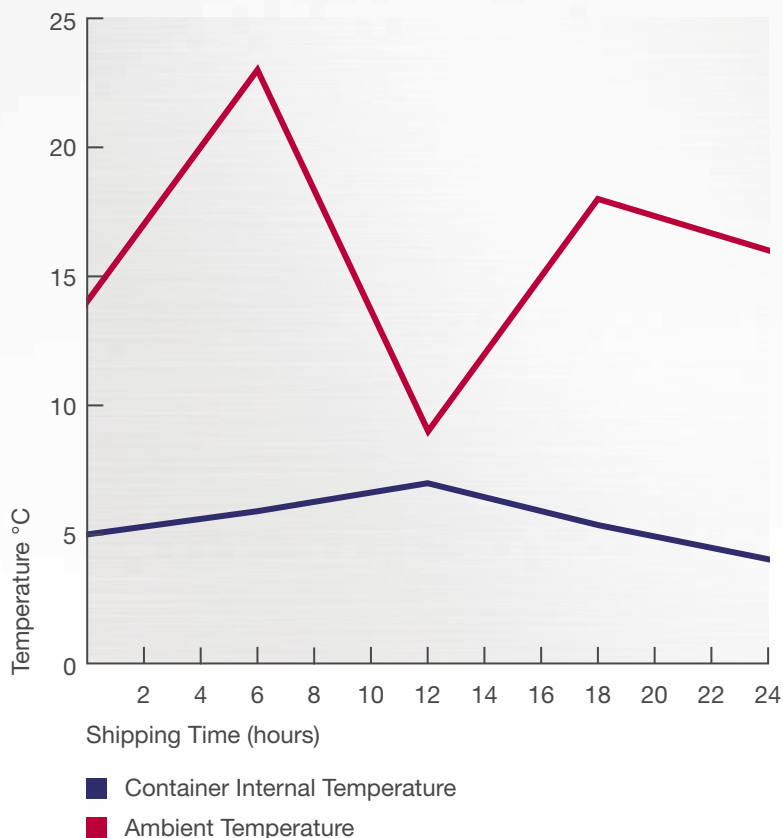
In the US, SDV is present in 15 major gateways and looks after all types of flows. In fact, SDV has developed expertise in the oil-and-gas sector where the central hub is located in Houston, Texas, close to the sector's major accounts.

In Africa, transport plans are sometimes quite complex because they have to take into account time constraints and the lack of local infrastructures. Thus, to move equipment from Houston to an oil field in Angola, SDV came up with a customized solution – the first leg to Pointe-Noire (Republic of the Congo) by air, followed by barge transfer specially operated by SDV to move goods directly off the Angolan coast. Difficulties were present at all levels. For instance, landing Air France's Boeing 747 at Pointe-Noire was extremely challenging, especially since it was the first time they had touched down at this airport.

Africa is a great growth driver for the global airfreight provided that air transport is integrated into an end-to-end multimodal supply chain.



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# Logistics in the New Economy – Finding and Seizing the Opportunities for Air Cargo



By Kenji Hashimoto, President, AA Cargo

**T**he future of air cargo is on the international stage. The globalized marketplace depends on logistics, and air cargo is the only viable means of transport for some of the products in high demand around the world. Commerce in Europe, the United States and other developed markets drove air cargo growth in years past. With the global economic downturn, a new group of consumers will propel air cargo in the years to come.

Established markets will always be important, but emerging markets offer the best prospects for growth. Businesses are turning to consumers in Latin America, Asia, and other regions for new opportunities. At American Airlines Cargo, we understand that the air cargo industry must also adapt to serve our customers' needs and help them access these markets. This is a two-fold challenge – identifying the opportunity while preparing to access it. To understand how air cargo opportunities can arise in emerging markets, consider Latin America.

There are a variety of factors combining to drive Latin American economies forward. Several countries in the region are making investments in regional infrastructure for transportation, energy and telecommunications. Businesses are also opening new distribution and manufacturing centers throughout the region. This creates stronger economic connections between nations that can spur commerce.

Trade is also on the rise across Latin America. The United States signed Free Trade Agreements (FTAs) with Panama and Colombia in 2011, which in addition to previous FTAs with Peru and Chile, create a region-wide free trade zone. Latin American commerce will also increase when the Panama Canal expansion is completed. This will allow more trade, particularly with Asia. It will also generate a greater need for air cargo solutions that can carry shipments from the region to the rest of the world.

With more than half a billion consumers, most of whom speak two closely related languages, Latin America is a booming market poised to grow stronger. Economic growth is building new middle classes. Some 56 million Latin American households joined the middle class over the last decade. Consumers are earning more and have more disposal income to purchase products from abroad. Their stronger financial standing also

gives folks access to consumer credit, which is helping drive the demand for commodities shipped by air cargo.

Air cargo is essential for bringing to market many of the goods consumers demand, such as high-tech products like smartphones and computers, luxury clothing and accessories, and life-saving pharmaceuticals. Carrying commodities to and from any developing region, however, presents numerous hurdles for logistics companies. American has served customers in nearly every country in Latin America, some for more than 25 years. Our regional familiarity and expertise is part of what allows us to adapt to logistics trends and better meet the demand for air cargo services.

## Preparing to Seize Opportunities

Local knowledge is extremely important when assessing a new opportunity. AA Cargo provides facilitation with local authorities such as Customs, and in the case of Brazil, the Infraero government warehouse on behalf of our customers. This expertise can help to establish a successful experience in new or challenging regulatory environments.

Emerging markets present challenges in other ways as well. For example, transportation infrastructure may be lacking. Shipments can be complicated by inefficient or confusing customs procedures. And there are considerations for the aircraft, routes and partnerships needed to reach distant markets. Because of our long-standing presence in the region, American continues to be successful in overcoming these obstacles.

Last year, American placed the biggest aircraft order in history. Among our 557 new planes are wide-body craft better suited for shipments to and from Latin America and other emerging regions. Because these new planes are also highly efficient, we are accessing more routes to important destinations with less fuel.

Working with partners is also essential if we are to offer a truly worldwide network of origins and destinations. Even as American flies to hundreds of locations across the world, there are markets and airports where an interline partner is essential. For forwarders striving for new markets, the question is which air carrier has the most trustworthy partnerships.

**Established markets will always be important, but emerging markets offer the best prospects for growth.**

Many customers in Latin America are looking to export their products into markets throughout Asia. American continues to make investments and is strengthening relationships with other carriers, such as Japan Airlines (JAL) to provide the benefit of many additional routings for our cargo customers. Reaching the combined networks of both carriers, the partnership also provides a seamless capacity confirmation, a nine-hour transfer time at Tokyo Narita, and a 90-minute recovery time at every JAL destination throughout the world. This helps us give our customers more options without compromising the quality and confidence they have come to expect from our team. Interline partnerships take hard work, trust and coordination. To that end, American maintains a dedicated interline desk focused on ensuring all shipments receive a consistent standard of care.

American remains focused on how we can help our customers grow their business, both today and in the future. We understand that customers want a broad range of solutions and easy access to global cargo trade lanes. This takes preparation, investment and collaboration with reliable partners. It also takes experience, a state-of-the-art fleet, and dedicated teams of trained employees. There is always more work to be done, but the many customer-focused efforts now underway at American will serve to help our customers achieve their goals in the new economy.

*Kenji Hashimoto is President of American Airlines Cargo, whose worldwide cargo operations provide daily, scheduled cargo lift capacity to major cities in the United States, Europe, Canada, Mexico, the Caribbean, Latin America and Asia.*

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# Sticks or Carrots... What Drives Change More?

By James Fernandez, Vice President Global Commercial Operations, CHAMP Cargosystems

The air-logistics industry is not known for fast innovation. It is still a paper-driven industry in which the value of good quality and timely information is not recognized as it should be. The focus remains on manual processes and personal relationships – a situation that is not so critical during good times – but when yields are falling and participants hemorrhaging cash, change is needed. The really profitable companies such as UPS, Apple, and Wal-Mart have been at the forefront of both technology and process innovation. And they have managed to do it with an underpinning of technology.

## Trade Compliance – A Catalyst for Change

There has been a wind of change blowing through the air-cargo industry of late. The main catalyst has been the events of 9/11 and the rise of global terrorism. Security became a key issue requiring compliance.

Legislators, usually considered slow and behind the curve in the introduction of innovative legislation, suddenly became drivers of change. IT tools and automation were needed to ensure compliance with new security legislation. In addition, innovative solutions had to be found to handle the immense data volumes generated by the US Advanced Manifest System (AMS), the EU Advanced Manifest Rule (ICS), and similar legislation in other jurisdictions. Cost-effective and intelligent risk assessment is possible only when broad know-how is combined with advanced IT tools.

As a result, the carriers are forced to provide shipment data meeting certain quality standards electronically and in a timely manner to more and more customs authorities around the globe. This has put airlines under enormous pressure to enable their core cargo-management systems to handle the new demands. In addition, forwarders and shippers are under pressure to provide quality data in a timely manner to the carriers.

## Shifting Economic Patterns

Paralleling the rise in terrorism this past decade has been a shift away from Europe and North America toward the economic power hubs in the Asia-Pacific region, as well as emphasis on new regional growth centers in Latin America, the Middle East, and southern Africa. As a result, manufacturers and trading houses have re-engineered their supply chains, partially at the expense of airfreight.

Some territories such as Hong Kong and Singapore have boosted their trade and expanded global reach by supporting data and process automation. They have built cutting-edge logistics infrastructure and have driven forward the development of multi-modal data platforms as pioneered in the maritime industry (e.g., by the ports of Rotterdam, Hamburg, and Bremen/Bremerhaven). Others have been supported by huge increases in capacity fueled by relentless aircraft orders. This latter development, however, is introducing a serious over-capacity of cargo space, which is damaging yields and balance in trade lanes.

## Meeting the Challenges

How should air-cargo carriers respond to these challenges and industry dynamics? What does it mean for everyone along the transport chain?

First and foremost, the current business environment requires more focus on IT investments to increase efficiency. The problems are how to collect and submit the data required by governments more effectively and efficiently, how to get increased “value” out of the data the airline has to collect and submit, and how to capture further value from the early-stage technology investments. The industry should take advantage of the changes forced upon it by customs and security issues. This stick and the subsequent necessary changes to legacy systems can be used to develop a business case that makes the carrot dangle attractively.

## Where Are the Carrots?

Academics, consultants, and air-cargo industry organizations have been pointing out the benefits of process automation and advanced software tools for the past twenty to thirty years – alas, with little effect. Progress on issues such as eAWB, Cargo 2000, and “paperless cargo handling” has been slow. Most airlines still work with outdated legacy systems, and there is no common global-communication standard.

The reasons are manifold, one of them being the silo approach adopted by industry bodies, all with divergent interests in the air-logistics chain. However, we can see light at the end of the tunnel with changes for good at IATA, and the creation of the Global Air Cargo Advisory Group (GACAG) has thrown the door open to an all-embracing cargo-community approach.

Another reason for the lack of success has been the need to invest before any benefits can be reaped. In an industry with notoriously low



margins, investment proposals are not popular with boards focused on shareholder value.

## Leveraging the Stick

Nevertheless, as governments force airlines to invest in electronic communication with customs, the extra effort needed to generate value to shareholders and customers becomes less prohibitive. We are thus seeing an increasing demand for advanced cargo-management systems covering all areas... from operations to revenue accounting. These solutions bring additional return on investment (ROI) for airlines through smarter operations.


In addition, the necessity to exchange information globally with various partners along the transport chain has stimulated the use of cargo hubs that provide robust and reliable business-to-business Information Interchange and seamless data transmission between forwarders, airlines, GSA, GHA, and customs. For smaller firms that are not yet ready for host-to-host communication, web-based portals offer an alternative to enhance their entry into the cargo-community integration. Investments in data and process quality-improvement tools are a further step to raise cost efficiency. Having such systems in place, airlines can now enter a true transformation process to a really paper-free future and make a paradigm shift to deliver value for customers.

## Sharing Costs and Benefits

As investment funds are in short supply in the air-cargo industry, the future lies in community-based systems and services that allow all participants along the transport chain to share the investment costs and economies-of-scale benefits. Thus, appropriate e-freight, e-customs, and e-security solutions must be developed for individual participants' needs.

Effective business models in this new economy merge digital and physical transactions to form a seamless whole. Simply put, the successful companies will be those that capitalize fully on the technological innovation that makes it possible to conduct business electronically, instantly, and more efficiently—without sacrificing the important element of human interaction. The air-cargo industry must move at the speed of the Internet. In order to succeed, it is necessary not just to keep up with the latest developments, but to stay one step ahead and provide value for customers.


*CHAMP Cargosystems offers best-of-class cargo-management systems, the largest cargo-community integration platform, and a comprehensive eCargo Suite, with solutions for Customs and Security, Quality, Paper-Free, Portals, and Mobility. For many years CHAMP Cargosystems has actively participated in all industry initiatives aimed at driving forward process automation to create a paper-free, environmentally friendly business environment. Collaboration and consultation with forward-thinking, experienced air-cargo professionals enables CHAMP to anticipate trends and develop future-oriented products or product improvements and extensions faster to meet the requirements of legislators and cargo people today and tomorrow.*


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# The Mutual Recognition of EU and US Cargo-Security Regimes: Paving the Way for More Efficient Global-Aviation Security

By: Marie-Caroline Laurent, Assistant Director, Security & Travel Facilitation, IATA



**A**fter seven years of negotiations, the European Commission and the US Transport Security Administration announced, on June 1, the adoption of a mutual-recognition agreement of their respective cargo-security regimes. The aviation industry unanimously welcomed this long-awaited agreement that will bring significant benefits to the industry moving cargo across the Atlantic.

The EU had already recognized US security measures for passengers and baggage in 2011, allowing for passengers from the US to forego rescreening when they transfer at some EU airports. However, negotiations concerning the mutual recognition of cargo-security measures have been lagging behind.

The Yemen incidents of fall 2010 provided a new sense of urgency to resume the negotiations. And, certainly, the looming deadline of December 3 for 100% cargo screening on inbound passenger flights to the US gave a decisive impetus to both parties to come to a final agreement.

This agreement, however, goes much further than the recognition process conducted by TSA in the framework of its National Cargo Security Program. For the first time, TSA is recognizing a union of nation states and departing from the country-by-country approach. Also, with this agreement, TSA is recognizing the security measures

of the 27 EU countries and Switzerland not only for cargo carried on board passenger aircraft, as required by the 9/11 Act, but also for cargo carried on board all-cargo aircraft.

On the EU side, the recognition of the US security measures, along with those of several other countries, was a significant step also because it was based on a new approach to the recognition of foreign-country security programs. The EU introduced new security requirements on cargo coming from foreign stations, beginning 1 February 2012 (EC Regulation 859/2011). These requirements are to be implemented by air carriers at each foreign station where they are flying cargo directly into the EU territory. And these measures apply regardless of the type of operations, whether cargo carried on board scheduled or charter flights or cargo carried on board passenger or all-cargo aircraft.

Within the framework of this new regulation, the European Commission has introduced a more risk-based approach to differentiate the requirements according to the countries from where the cargo is uplifted for transport into the EU. This new approach allows recognizing cargo-security measures of foreign countries on the basis of a risk assessment and of an aviation security-vulnerability assessment, which can be done as part of an internal EU process rather than through lengthy bilateral official negotiations with the

***But, more important, this agreement will also enhance the security of air cargo because it ensures that adequate security measures are applied to any cargo carried across the Atlantic, regardless of the type of operations.***

third country concerned. The recognition of the US security regime is a direct result of this new approach.

In concrete terms, this mutual recognition of EU and US cargo-security measures means that the millions of tons of cargo carried across the Atlantic every year will not have to be subjected to duplicative screening requirements. Air carriers flying out of the EU and Switzerland will be allowed to apply EU security measures as a means of complying with US law. Similarly, cargo flying from the US into the EU and Switzerland will not have to be subjected to additional EU security measures at US airports.

All evidence indicates that this agreement will allow for great cost savings for the European and American industries and will facilitate the movement of goods between these two major trading blocks. But, more important, this agreement will also enhance the security of air cargo because it ensures that adequate security measures are applied to any cargo carried across the Atlantic, regardless of the type of operations. The agreement also allows for more efficient security measures and better exchange of information between the signatories.

With this agreement, the EU and the US have paved the way for a more collaborative approach to aviation security. It's an approach that focuses on harmonizing and enhancing aviation security – not just from a national perspective, but with a truly common global objective.



The ICAO High Level Conference on Aviation Security, which took place in September in Montreal, confirmed this trend in its conclusions by “strongly encouraging ICAO Member States to explore with each other mutual recognition arrangements, including one-stop security.” The industry will now be looking at the expansion of this mutual-recognition approach to other countries in the world as well as to other areas like passenger- and baggage-security measures.

# I am Swiss at Heart

**Malachi Moyo**  
Country Manager Cargo South Africa & Mauritius

Our team consists of people from more than 40 nations, representing five continents and many different cultures. But what truly matters is what we all share: a passion for quality, reliability and precision. And our vow: **We care for your cargo.**



# Enhancing Business Competitiveness Through Trade Facilitation

BY: Adam W. Salamo, Director, National Security and Emergency Preparedness, U.S. Chamber of Commerce

The goal of the Trans-Pacific Partnership (TPP) is to be a comprehensive and high-standard free-trade agreement between nine – and soon to be 11 – countries in the Asia-Pacific region. To achieve this, the agreement must strengthen intellectual-property and investment protections; ensure that procurement policies are transparent and fair; simplify tariff schedules, rules, and standards; and address the role of state-owned enterprises in the economy. It must also advance the demands of today's business models in ways that other trade agreements have not yet done. One area of particular importance is supply-chain and trade facilitation.

When boiling down the subject of supply chains, we find that it is really about economic competitiveness. Whether a company in the Midwest is managing its supply chain to manufacture products for global markets or a retailer in the Northeast is sourcing products from around the globe for its shelves, efficiency and predictability in the global supply chain are critical to a competitive advantage. A World Trade Organization study showed that 56% of global trade is intermediate goods, which means that US manufacturers depend on imports and exports moving efficiently across borders and through the supply chain. The slower these products move, the less competitive they are.

We also know that supply chains are dynamic. They are always changing, always improving, and always looking for new ways to improve predictability. As products cross borders, governments can either get in the way of that transaction or, through best practices, help facilitate it. Choke points, such as outdated customs mandates, excessive security mandates, inadequate infrastructure, and burdensome or redundant regulations, can have the same detrimental impact on trade as tariffs. These hidden costs contribute to trade inefficiencies as high as 15% of the product value and consequently waste business resources and hurt US competitiveness. In many countries, improving trade facilitation could produce greater benefits than reducing tariffs. Additionally, countries should look at their customs procedures as a competitive tool that can help improve their economic performance, rather than simply as a means to collect duties.

With all the action on the TPP and the need for trade facilitation, it seems logical that we link the two. That is why the U.S. Chamber

is promoting a chapter in the TPP that creates a new framework for advancing the demands of modern supply chains. The faster and more efficiently we move products and inputs, the more competitive we are as trade partners. A successful TPP agreement should eliminate duplicative, trade-distorting, and unnecessary barriers in each country today and over time as more issues arise.

Existing US trade partners realize the importance of trade facilitation to the competitiveness of trade agreements. The North American Free Trade Agreement (NAFTA) is a good example. The recent U.S.-Canada Beyond the Border Initiative (B2B) was developed to address problems that have plagued trade facilitation at the border for years. Progress on this initiative should be applauded. But if there is one criticism, it is that it took President Obama and Canadian Prime Minister Harper coming together to solve these issues. The very existence of B2B admits that there was no effective mechanism in NAFTA to solve basic border issues. Issues should not have to reach a boiling point before they receive attention.

The Chamber is urging negotiators to comprehensively address supply-chain issues by institutionalizing new checks and balances into the TPP agreement. Specific recommendations by industry include having each country identify a single entity responsible for coordinating all national agencies and regulators impacting the supply chain. The purpose would be to cut through red tape and have one agency focused on engaging industry and facilitating legitimate trade. Another recommendation is to have public- and private-sector committees focused on solving the supply-chain connectivity issues of today and tomorrow. The final recommendation is to create a vigorous action plan for improvements. These three recommendations will elevate the issues facing supply chains and prominently display their significance to the free-trade agreement.

The TPP should push the limits of what has been addressed in past free-trade agreements. As the agreement evolves, the Chamber seeks to strengthen the interconnectivity that is critical to a competitive trade bloc. Through this chapter, we can create a new framework to better facilitate supply-chain solutions for the future.





## Cargo Economic Outlook Q3 2012

Cargo profitability has come under downward pressure in the third quarter of 2012, with the minor improvement in air freight demand in the first half of the year 2012 stalling, yields declining, and oil prices surging once again.

Continued expansion in world trade has helped air freight markets stabilize, as has the lack of an inventory overhang. But the growth momentum in trade volumes is slowing, and business confidence has reversed the upward trend seen earlier in 2012, declining for the last 3 months.

Demand drivers have also weakened, with consumer confidence falling in China, the US and particularly in Europe, and with capital investment intentions by Japanese and the United Kingdom companies declining. Freight load factors stabilized in first half of 2012, but aircraft utilization has been declining, and freight rates continue to be under downward pressure.

Looking forward, cargo heads surveyed in July 2012 have become more cautious, expecting cargo yields to decline over the next 12 months, and traffic to increase only modestly.

## More and More Industry Stakeholders are Adopting the e-AWB!

The air cargo industry is witnessing a steady increase in the global adoption of electronic Air Waybill (e-AWB) as more and more stakeholders move from the traditional paper Air Waybill to the e-AWB.

In North America, the Canadian International Freight Forwarders Association (CIFFA), which represents about 245 freight forwarding firms, issued a position paper on e-AWB in Canada. The CIFFA position paper expresses the will of its members to "embrace the opportunities that will be found moving forward to a truly electronic e-AWB document that brings [the industry] into an age of true electronic commerce, facilitating growth, driving quality and eliminating waste from the system". In this document, the CIFFA urges carriers to seize the e-AWB opportunity as well.

In the Middle East, the Israeli Federation of

International Freight Forwarders & Customs Clearing Agents (IFFCCA) contacted two Israel based airlines to report that it supports the implementation of the e-AWB and encourages its members to contact airlines in order to switch to e-AWB as soon as feasible. IATA is working with local industry stakeholders to organize a workshop in Israel in the fourth quarter of 2012.

In Europe, British Airways went live with e-AWB out of Heathrow Airport (LHR) in April and as of July has seen steady growth of e-AWBs on international feasible shipments out of the United Kingdom market. British Airways is steadily progressing towards its target of a 15% e-AWB penetration out of the home market by the end of 2012.

In Asia, Korean Air Lines went live with new business processes in July, resulting in the increased e-AWB penetration for international shipments out of South Korea rising from 0.2% in June to 5.4% in July. This was a major step forward for the airline, as it quickly accelerates towards its target of 60% e-AWB penetration out of the home market by the end of 2012.

There is overall good progress in the industry and IATA urges all its Members, their business partners and also Regulators to join the e-AWB initiative and become a part of this momentous evolution of the air cargo industry!

## IATA Cargo Operations Advisory Group established

Cargo Operations Advisory Group (COAG) has been established to bring together members from airlines and ground handling agents to develop best-practice processes and procedures in order to address all aspects of cargo acceptance and handling.

The COAG will be working on the review, improvement and development of cargo operations processes and procedures for incorporation into the IATA Airport Handling Manual (AHM) and IATA Ground Operations Manual (IGOM). The objective being to develop operations processes that can be adopted by airlines and ground handling agents and that will ultimately lead to a greater degree of standardization and harmonization for cargo acceptance and handling.

Having a higher level of harmonization and

standardization will help both airlines and ground handling agents to simplify training requirements for cargo handling and should lead to cost savings and potentially improved safety for all parties. The first effort by the COAG will be to review and develop the cargo acceptance processes including clear processes supporting paperless e-AWB. The cargo acceptance processes being critical to the safety, regulatory and liability domains.

## Delivering Time on Time ... Air Cargo Makes it Happen.

Air Cargo transports over US\$5 trillion worth of goods and approximately US\$60 billion in Airline revenues. It is not just a trade facilitator but it is a trade creator that contributes to the global economic development.

By enabling access to vaccines in time to remote parts of the world, air cargo helps to prevent 2.5 million deaths every year.

Similarly, air cargo boosts the electronics industry by fast delivery of the latest technology – facilitating education of the youth, accelerating businesses and connecting communities with the latest gadgets.

In order to raise the profile and awareness of what a critical industry air cargo is to commerce, the economy and the global community, IATA introduced "...air cargo makes it happen" campaign, comprised of cargo specific posters and other materials.

The campaign was launched during the 6th World Cargo Symposium at Kuala Lumpur International Airport in March 2012 and has been present at a number of renowned airports and prominent cargo industry events, including the latest CNS Partnership Conference in Miami in May and the IATA Annual General Meeting in Beijing in June.

IATA continues to develop the materials dedicated to specific regions or countries with the newest poster showcasing the value of air cargo in Switzerland.

The goods transported from Switzerland consist of light, compact, perishable, time sensitive or valuable cargo, such as pharmaceuticals and time pieces. IATA chose the watchmaking sector to illustrate the value of air cargo is bringing to Swiss market: speed delivery of high value products.

# Political Unrest Disrupts Air Cargo Flow

By: George Leposky, Freelance Journalist

If you were in Yemen and wanted to ship CD players, computers, amplifiers, and speakers elsewhere in the world via DHL Express, you couldn't do it.

In October 2010, the Yemeni branch of al-Qaida used DHL to ship from Sana'a to Chicago two cargo packages containing computer printers with explosives in the ink cartridge connected to a cellphone detonator. One was intercepted in Dubai, the other in the United Kingdom. DHL immediately shut down all outbound service from Yemen.

Several months later DHL resumed limited service, accepting outbound documents to 38 countries and some outbound parcels – but not containing electrical and electronic equipment – to 29 countries, all in the Middle East, Africa, and Asia. Recently DHL began accepting outbound documents from Yemen to the United States and United Kingdom, but the parcel ban to the U.S. and U.K. continues. What's more, outbound shipments from Yemen must go through a transit country for physical inspection and repacking before being flown to their destination, adding delay and costs.

This incident illustrates just one aspect of the disruption that political unrest creates for the air-cargo industry. Air cargo is vulnerable to terrorists who can strike anywhere in the world at any time, and to mass uprisings such as the Arab Spring events that brought down entrenched leaders in Egypt, Libya, Tunisia, and Yemen and now threaten Syria's president.

Under these circumstances, "the cost of air-cargo security today is escalating," says Ram Menem, Emirates' senior vice president, cargo. "The cost is latent, it doesn't surface all the time, but it slows down the supply chain. You have more audits. You constantly audit what you're

doing, and others keep on auditing you, to make sure you have not left any gray area, or let anything slip.

"Our security was already tight even before the terrorist attacks of September 11, 2001. Now it's tighter, and we have to follow rules set by different regimes. We hope the International Air Transport Association's Secure Freight project will be widely accepted and bring some standardization so there will be a common understanding and more cost efficiency."

## Airports a Prize

Aircraft and cargo aren't the only vehicles of political dissent. Wherever terrorist cells and revolutionary movements strive to topple an unpopular regime, airports are a strategic prize. Warring factions may battle to control them, damage them so others cannot use them, and/or cut off access by blocking key highways.

When Libya's revolt against the regime of Muammar Gaddafi broke out in spring 2011, Emirates shut down its regular schedule at the Tripoli airport, which was badly damaged. "We resumed service in July 2012 as soon as the Tripoli airport was safe to operate," Menem says. "We fly there from Dubai and drop off cargo on the way to Frankfurt, but we aren't picking up cargo in Tripoli yet due to concerns with the local security system."

Menem notes that shutting down service to a single airport can affect distribution for the entire network. "China and Hong Kong were good markets feeding into Libya, and there was a lot of traffic between Libya and Dubai because of the oil field," he says. "We were able to reallocate our assets on other routes. We stayed in constant touch with our four-person cargo team in Libya. We did not abandon them.



They are still there. We support them in any way we can. Our hearts went out to them. They were in a very difficult situation.”

In Tunisia and Egypt, Emirates halted service at the height of the unrest, but was able to resume as soon as stability returned to those local markets because their airport infrastructure wasn't compromised, Menem says.

In Yemen, closures of varying duration affected the Sana'a airport in May, June, September, and October 2011 during the waning months of President Ali Abdullah Saleh's tenure. Three contending factions divided Sana'a and fought each other for control. Roadblocks along the main highway between the city center and the airport, a distance of about 15 km, frequently made the airport inaccessible. Also, heavy artillery fire in the vicinity of the airport was most intense at night, when most international flights arrive in Yemen.

Most international carriers serving Yemen cancelled or sharply curtailed their schedules. This affected the express services as well because they typically serve Yemen through Amman or Dubai on common carriers instead of their own dedicated aircraft. Egypt Air Lines, Royal Jordanian Airlines, and Qatar Airways cancelled all flights; Emirates cancelled flights during periods of extreme disruption.

Late in 2011 Saleh stepped down after signing an agreement with the Gulf Cooperation Council, a regional political and economic union. Vice-president Abd-Rabbu Mansour Hadi took over and won a presidential election in February 2012 in which he was the only candidate.

On April 7, 2012, air force officers blockaded the Sana'a airport to protest Hadi's dismissal of their commander, a half-brother of Saleh. Protesters and government troops shot at each other. The airport sustained some damage. Flights were prevented from landing and taking off for two days, delaying cargo shipments and stranding hundreds of passengers in Sana'a and throughout the Middle East.

## Basic Necessities

While the political unrest continues, “some 10 million people, almost half the population, are going hungry in Yemen,” according to Oxfam International. Oxfam and other aid organizations have called for emergency funding to stave off immediate malnutrition and help Yemenis with the long-term task of rebuilding their economy. Even if the necessary food is available, getting it to people who need it depends on reliable transportation – which often hasn't been readily available.

About 90 percent of Yemen's food supply is imported. Ships can bring in products with a long shelf life such as canned goods, cooking oil, and flour, but perishable fruits and vegetables from South Africa and South America typically travel by air and are subject to the disruption of air-cargo operations.

“Air supply can affect malnourishment,” Menem says. “Air is a major pipeline, especially for landlocked countries. If the supply chain for whatever reason is being disrupted, people in Ethiopia and Sudan aren't being fed.”

The world also depends on the air-cargo system for medications. “When disease strikes, serums and vaccines have to be brought to an affected place very quickly,” Menem notes. “People like the Red Cross spring into action. We carry a lot of humanitarian shipments for the Red Cross, the United Nations, and Médecins sans Frontières.”

Menem says political unrest can curtail supplies of the fuel that air-cargo companies need to maintain service. “We tanker fuel [carry extra fuel] to get to a point nearby where we can refuel the plane and get a fresh crew,” he says. “When we're tankering, we're burning fuel to carry fuel, adding extra weight to keep our supply lines open, and making stops that wouldn't ordinarily have to be made. That adds to costs.”

Because transport services are subject to disruption, aid agencies and “opportunity traders” may stockpile goods in or near distressed areas. “We see the movements and we react,” Menem says. “Conflicts happen quickly. We may not have warning.”

## Losses and Gains

The Arab Spring upheavals of 2011 decreased air-cargo volumes as growth in gross domestic product declined in the affected countries. According to a February 2012 report in *The Economist*, the International Monetary Fund says Tunisia's GDP didn't grow at all in 2011, while the government says it lost 1.8 percent. Egypt's growth declined from five percent to one percent, and Libya's economy shrank to less than half its previous value.

After decades of near-serfdom under dictatorial regimes, workers emboldened by the political changes have struck for better wages and benefits and replacement of their bosses, slowing or halting entirely the manufacture of export goods that typically travel by air.

Another casualty is the flow of perishable foodstuffs and other cargo to supply hotels and other hospitality-industry customers in the region, as political unrest has diverted tourists to less perilous destinations. *The Economist* says tourists have shunned previously popular resorts along the Nile River, depriving many of the 15 million Egyptians who depend on tourism for their livelihood.

The *Yemen Times* reports that reservations for resorts and furnished flats in the southern port city of Aden have decreased by 60 percent from past years. A study by Yusef Saeed, an economics professor, found that during the past decade Yemen's tourism sector lost \$10 billion and 700,000 jobs, while hotels and transportation companies experienced a 50 percent shrinkage in annual profits.

On the other hand, the upheavals have left in their wake extensive physical damage to private property and public infrastructure, especially in Libya. Given the need to restore and upgrade facilities and services quickly, the air-cargo industry is likely to capture more than its normal share of the necessary components and equipment – especially in such low-weight, high-value categories as computer systems and telecommunication networks.



# Simple like Google, Pretty as Apple . . .

By: Niall van de Wouw, Managing Director, CLIVE B.V.

Airlines often have cumbersome procedures and technology in place to manage their capacity commitments (permanent bookings, BSAs, etc.) with forwarders. And the resulting inefficiencies cause airlines to leave money on the table. This article argues that implementation of humanized-technology standards, which we have become so accustomed to in our private sphere, will facilitate the needed improvement in the years to come.

Humanized technology may be described as software and hardware that are intuitive to operate, neatly packaged, and, above all, capable of providing instant gratification. Two behemoths that excel in this domain are Google and Apple. Google is second to none when it comes to organizing the world's information and making it universally accessible and useful. And "designed by Apple" is synonymous with "looks great."

So imagine that airlines have access to technology to manage their capacity commitments that is as simple to operate as Google Search and looks as pretty as Apple's software.

## Efficient Capacity Managers

With Google-simple and Apple-attractive technology, capacity managers will have all the information they need, right there on the screen before them, to assess the value of a new allocation request. This information will include not only the essentials of the new request, but also those of existing allocations. Contribution-per-cubic-meter and historic-performance indicators are just two of the performance indicators that are present. And the data, which can be quite extensive, is all nicely organized and pleasantly placed on the screen. With this technology, capacity managers can make swift and well founded decisions with little effort. And without leaving that same screen, they can implement their decision, communicate with the responsible sales person, and update the booking system if required.



Such integrated analysis and execution features will allow them to respond far more quickly to a sales request. In addition, these features will make keeping an overview of the myriad allocations easier. As for making changes to allocation plans due to flight-schedule changes or changing client volumes, capacity managers would no longer have to maneuver between excel sheets, old emails, and the airline's booking system. It would all be there right there in front of them.

## Informed Sales Managers

Such technology would also allow sales managers to have access to accurate client-performance data in a manner that is meaningful to them. Currently, such performance data is too often "hidden" in fragmented reports and large databases that sales people are not comfortable working with. Instead, the data would be displayed in a far more easily digestible manner. The allocation performance of a client would be captured by simply displaying two percentages. The first one lists the total performance relative to the periodic target, and the second one, the average deviation from the daily target. The result is a quick overview of whether the volumes have been delivered and whether the tender pattern was stable or erratic.

Providing the data in a meaningful manner will dramatically increase the chance that sales people will actually look at the performance data and use it to their benefit. Key-account managers could help clients struggling to reach their global or regional incentive targets by pointing them toward underperforming allocations. Sales managers at cargo airlines often think that forwarders know more about their airline's performance than they know themselves. Embracing a technology that recognizes the needs (and limits) of sales people should make such notions a thing of the past.

## Improved Incentive Structure

The accurate and consolidated perspective on the client's allocation performance will enable airlines to extract more value from key-account programs. These programs are presently concerned mainly with incentives related to (global) tonnage or revenue targets. It is no secret that airlines often struggle to assess whether they received reciprocal value from the pay-out or whether it should simply be considered the cost of doing business with the major forwarders. There is however an opportunity for airlines to improve the conditions relating to these incentives. Through the easy access of this performance data, a second threshold could be introduced. This threshold could condition that only if a minimal percentage of the



key account's turnover is from allocations (versus ad-hoc shipments), will the full payment be made. Incorporating these conditions into the key-account programs will create a more direct link between the client's longer-term commitment and the pay-out of incentives.

### Limited Implementation Effort

So, what would it take to transform these ideas into reality? Well, perhaps surprisingly, not that much. Airlines are less bound by their older (and difficult-to-replace) technology than they think. But it would require a paradigm shift. Instead of insisting that the supporting IT infrastructure be "one system," airlines should promote the connectivity of their current infrastructure to tailored applications. Only then can the pace of innovation in the air-cargo domain keep up with the improving user experiences outside the industry. And these experiences clearly show that users don't mind using several systems during one activity (buying goods online, for example) as long as the connectivity between the systems is seamless and their use intuitive. Another benefit is that these applications can be made available through software-as-service with all maintenance done by a third party. And with only an Internet browser required at the user's end, the global roll-out can be performed with very little on-site presence. This will further help airlines to improve their pace of innovation while keeping IT costs at an acceptable level.

### Attractive Revenue Opportunity

A 2011 study<sup>1</sup> by the Sloan School of Management concluded that "firms that adopt Data-Driven-Decision-making have output and productivity that is 5-6% higher than what would be expected given their other investments and information technology usage." Airlines confirm that all other things being equal, an improvement of 1-2% on revenues from capacity commitments through the use of the described technology is realistic. With an estimated 60% of global airline capacity being marketed through capacity commitments, this annual improvement potential would range from US\$360-720 million. This additional revenue can be obtained by making numerous (small) improvements to the current way of doing business. And humanized technology would be a good beacon to show the way ahead.

<sup>1</sup> "Strength in numbers: How does data-driven decision-making affect firm performance," 2011.

**CLIVE provides humanized technology to the air-cargo domain. For more information, please contact Niall van de Wouw at [nvdwouw@useclive.com](mailto:nvdwouw@useclive.com).**

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# Revisiting the Business Case for Freighters

By: DJ Ghosh, President, American Friendship Cargo [www.aircargopedia.com](http://www.aircargopedia.com)

A lot has changed on the world stage in the last few months. Suddenly, it looks as though the “gray beards” of this industry are switching positions to make it appear that, all along, they have argued that the business case for dedicated cargo airlines never existed in the first place. With the industry in the throes of one of its deepest down cycles – with multiple cargo-airline failures worldwide and even industry stalwarts like Cargolux questioning their business model – the business case for freighters appears to be in serious trouble. The ranks of people saying, “I told you that dedicated freighters would never work,” are growing by the day.

Dr. Karl Ulrich Garnadtdt, CEO and Chairman of Lufthansa Cargo, was quoted in *Flying Typers* as saying, “The iron rule is that airlines can operate profitably only when utilization is high – and where that is not possible, we cut back on capacity.” In the same publication, Joseph Czyzyk said, “As air cargo moves along during the next few years, welcome to the world of commodity pricing.” And Bill Boesch, an industry veteran and another advocate of high utilization, asserted that if the market rate multiplied by the number

of hours does not at least equal your costs of aircraft, fuel, and operations, you will fail.

It hasn't helped the business case for freighters when industry captains like Neel Shah, formerly of Delta Airline Cargo and an avid freighter cutter, have publicly stated that “[y]ields cannot support these aircraft. The only people who should be flying them are Fed Ex and UPS.” The final nail in the coffin comes from GSA Howard Jones of Network Cargo Systems who unequivocally stated at the FREIGHTERS World Conference in Frankfurt last month: “We do not control our destiny. We can manage it, but not control it.”

All of this reminds us of the time-honored words of the 19th century American writer/philosopher Henry Thoreau: “Most men lead lives of quiet desperation and go to the grave with the song still in them.” In this case, it appears that the air-cargo industry is drifting rudderless and leaderless into a future of quiet desperation, without ever having made a serious effort to study its true potential. If nothing is done, we may soon become irrelevant, if not extinct.

The captains of this industry will deny a lot of what is afflicting us today, shrugging it off as a consequence of a distressed world economy. They will blame the stagnating and indebted economies of Europe, the high unemployment rate in the USA, and a slowdown in the Chinese and Indian economic engines. The truth of the matter is that the anxieties of the air-cargo business can be attributed less to the world's problems and more to the fact that the industry has been in a state of denial. The air-cargo industry has had a serious problem and has never really made a determined effort to define its value proposition. Air cargo, a \$70-billion-plus industry today, has never really taken the time to re-invent itself as a stand-alone business.

A classic example of this is Lufthansa's problems with the night ban at Frankfurt airport. While we all know that Frankfurt is Lufthansa's biggest cargo hub, if it does not act soon, it could also become Lufthansa's biggest headache. In spite of the fact that the advocates of the night ban are getting more entrenched in their positions, supported by a court decision, Lufthansa continues to be in denial. Lufthansa thinks that a marketing campaign outlining the benefits that air cargo brings will help placate the night-ban advocates and overturn this ban. Even Dr. Andreas Otto, a member of the Executive Board of Lufthansa Cargo, admitted at the FREIGHTERS Conference last month that he personally suffered a night of disturbed sleep at a hotel next to the airport.

Lufthansa's Frankfurt problem may soon become a problem at every major hub in every major world metropolis. Instead of denying the problem or fighting it, the large freighter operators need to gradually wean their businesses away from hub airports and toward smaller rural airports, which are immune to noise restrictions. This would rapidly re-invent and establish a strong business case for dedicated cargo airports and provide a sound platform for a new all-cargo model.

While Neel Shah has correctly stated that the yields of the air-cargo business cannot support freighter aircraft, what he has not told you is that the industry has done very little to study individual products and create special "value propositions" for each of them. The reason that integrators like Fed Ex and UPS can make piles of cash, year after year, is that they offer a "product" – and not a "commodity" – that can be priced at four to six times what standard belly-cargo carriers or "general-cargo" freighter operators charge.

Joseph Czyzyk's earlier comments that the world is headed toward commodity pricing reflects the inertia in this industry when it comes to researching and studying individual products and creating value propositions and service parameters around each of them. To state

it bluntly, commodity pricing reflects the thinking of individuals or companies who are lazy and have spent very little time or effort studying the unique items that they transport. Instead of investing in attending industry seminars and symposia to learn about the unique characteristics of each product they transport, they quickly lump together very different items as "general cargo." The sad truth is that yields and profits come not from generalization, but through specialization. Consequently, this industry needs more specialists and fewer generalists.

"High utilization" has almost become a mantra for operators of large, expensive freighter aircraft like Lufthansa and Atlas Air. By allowing themselves to be "nickel and dimed" by forwarders and airlines alike and with their backs to the wall in terms of pricing, they have had to squeeze every minute of flying out of their wide-body aircraft. Like the proverbial hamster on the wheel, they can never stop operating for fear of defaulting on their lease payments or other financial obligations. Contrast this with the smaller aircraft of the integrators where "reliability" and "underutilization" are the key words of this business and where product offerings and service parameters are clearly defined.

Nobody has ever dared say this in a public forum, but the biggest problem with the air-cargo business is that it has evolved without a grand master plan. As air-cargo volumes surged through the seventies, eighties, and nineties, airlines added wide-body capacity at a rate that would shock even the most inexperienced investor. Legacy carriers have survived these errors due to their passenger balance sheets. Independent cargo airlines without this luxury have folded ignominiously.

The only way that the independent air-cargo airline business should have ever been launched is by defining a value proposition for every type of cargo, thus creating a revenue model, and never proceeding even one step forward unless all profit parameters were met. No airline should have ever been allowed to purchase an aircraft without having firm long-term commitments from customers such as forwarders and shippers. Everyone, and I mean everyone, needs to have skin in the game. And airlines need to have a clear plan on how they intend to finance and operate the aircraft over the lease term.

Indeed, if we could do it all over again, the best way to start an independent cargo airline would be by starting small, very small, with the smallest-size freighters. With the lower financial risk that this would entail, operators could gradually develop a profitable customer base, customize it, and then gradually scale it. They could develop purpose-driven freighters for special products or customers,

The business case needs to be  
unique and worthy of a higher rate  
to compete with the commodity-style  
pricing of belly carriers.

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customizing each freighter to suit the needs of the customer. The only way they should allow themselves to grow bigger and into larger freighter types would be based on a pro-forma or template of guaranteed profitable operations.

Very few new cargo airlines will have the financial strength to withstand the cyclical nature of the air-cargo business without serious long-term financial backing or the support of a proverbial “rich uncle.” At the end of the day, a new cargo airline is a new business, and like a new business, it must prove itself, develop a business case, and establish a value proposition. To do this takes time and money – lots of money. Furthermore, the business case needs to be unique and worthy of a higher rate to compete with the commodity-style pricing of belly carriers. In a way, the integrators like Fed Ex and UPS should become role models. New cargo-airline entrants should start small and concentrate on the highest-revenue freight, gradually building their business case around it before moving to larger-gauge aircraft.

Whether we like it or not, 80% of the world's freight is still controlled by the world's 20 large forwarders who control pricing. Most of this freight will move on a commoditized basis and will flow to the lowest-cost providers. The business model for a new or existing operator in this space is very simple. Partner with multiple major carriers or forwarders by entering into long-term contracts of 10-to-12-year duration, nothing less. Ensure that your contracts match your aircraft-lease terms. If they pay rock-bottom prices, make sure they give you a long-term contract with a guaranteed margin over cost. Do not place an asset unless you have this contract in place. Own or control the asset. Get paid a fixed fee per operation. Keep a simple fleet type. Achieve high utilization of your aircraft and human resources. Maintain low overhead. Don't take revenue risk, and don't take fuel risk. Most people in the industry refer to this as ACMI. We call it common sense and the only way to stay out of

bankruptcy court and make a decent margin.

For the foreseeable future, passenger bellies with their below-cost pricing will continue to undercut freighter operators and make their lives miserable. The substantial belly lift that the wide-body A340, B777, and the B787 passenger aircraft provide on a scheduled basis will continue to make the business case for dedicated freighters more difficult. However, as history has shown, no matter how unprofitable they are, freighters have always been a mainstay of the business and will continue to grow their share from the current 50/50 split. As the PowerPoint presentations from the Seabury group have shown, some major trade lanes, including North to South America and Asia to Europe, are still dominated by freighters. As long as Boeing and Airbus build passenger aircraft with large bellies, freighter operators will have to scratch their heads to find ways to make money.

But there is still plenty of hope. So don't rush out to write off the dedicated-freighter business yet. Even though air-cargo growth rates have tempered to 3.6% over the last decade from the headier growth rates of the previous three decades, the business of air cargo is still growing. Boeing and Airbus forecasts may have been overly optimistic and may have driven the industry to over order freighter capacity, but there is still much optimism to be mined in this business.

As the business grows, we predict that the air cargo-industry will fragment and become a more niche and specialized business. As smaller product groups grow larger, they will demand their own space and service parameters, as well as their own routes. The passenger business model with the large bellies and regular schedules may still not be able to fully cater to the age of the new air-cargo specialist. This is the opportunity that the new air-cargo entrepreneur has been waiting for. For the visionaries of the air-cargo universe, with well researched and bespoke cargo offerings, the games have just begun.





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# Uncertainty and Tough Times in Air Cargo

By: Tony Charaf, Senior Vice President and Chief Cargo Officer, Delta Air Lines

It's no exaggeration to say that we're working during some very challenging times in our industry. Clearly, the current economic stresses in Europe, as well as the ongoing uncertainty in the US, are having a significant effect on the overall market worldwide for both passenger and cargo traffic. These global conditions have caused some contraction in the cargo industry in particular. At the moment, we are not seeing any clear indication of improving conditions, at least in the near term. Excess capacity and declining freight volumes are also creating yield pressures in the market. Additionally, competition is keen, which means that we all have to work even harder to grow our business.

That said, we know that airfreight will continue to play an essential role in global trade. Still, industry surveys from IATA and others lack a clear consensus for cargo growth. And if you look at the demand models for both passenger and cargo operations, there is also no apparent picture as to how long this uncertainty will last.

At Delta, we are focused on making it easier for customers to do business with us by offering the variety of products and range of services we know are the most in demand. We also continue to provide a consistently reliable operation that customers can count on for every shipment. Building on \$1 billion in revenue in 2011, Delta has continued to outperform others in the industry for most of this summer from a cargo-ton-mile perspective. We can credit this to several factors.

At the top of the list are our people. Our employees consistently distinguish us and provide what we call the "Delta difference." Investing in our employees and giving them the tools they need to be successful is a key focus for us. For example, this summer we launched a new Customer Resolution Team that offers a single point of contact to help customers in tracking shipments. In such a competitive environment, customer service is what will distinguish Delta Cargo in the industry.

Our extensive network in the US and globally, particularly in Asia since our merger, also gives our customers a distinct advantage. Our ability to connect the major production and supply centers to the strongest markets worldwide is a value proposition that works. We are also privileged to have a very strong joint venture with Air France-KLM and Alitalia that includes transatlantic antitrust immunity. Our teams work closely together to leverage the added value customers enjoy as a result of our strong joint-network opportunities.

An area we should continue to watch in the cargo industry is the growing investment in technology. We have seen this during the past decade on the passenger side of the business. Today, a customer can book a ticket online from home or office and print that ticket and check in at the airport using an automated kiosk or even check in using a mobile smartphone.

In the cargo business, we need to ramp up our processes to offer that same level of service and convenience to customers. Certainly, these efforts are underway with C2K and e-freight initiatives. I think we'd all agree that eliminating paper from our business will drive more-efficient processes and improve the accuracy of data. I'm proud to say that Delta has become the number-one carrier in adopting e-freight processes, as measured by IATA.

Online business capabilities are something that customers are increasingly coming to expect. We have made a significant investment in [deltacargo.com](http://deltacargo.com) – which we expect to re-launch by the first quarter of 2013. The site will feature improved design and navigation functions and enhanced shipment-tracking capabilities. In addition to English, this site will be available in Spanish, German, and Japanese. All of this supports our goal to make it easier for customers to do business with Delta Cargo.

Another area on the industry radar is the collaboration between the industry and government regulators. The work that has been done in relation to the Air Cargo Advance Screening project is an example of this new level of collaboration. You have U.S. Customs and Border Protection, Transportation Security Administration, express carriers, passenger carriers, freight forwarders, and all the cargo carriers working side by side to design solutions that will help secure the cargo we are loading on our aircraft while not impeding the flow of commerce. Delta will continue to play an active role in this important work.

We are also seeing regulators in other countries working together and making some significant progress. TSA announced mutual-recognition agreements in relation to air cargo-security programs with the European Union, Switzerland, and Canada. As cargo carriers, we are moving goods all over the globe, and at each end of the chain, there are agencies and regulators with their own requirements. As more of these mutual agreements are put in place to acknowledge each country's requirements and programs, we can take a step forward as an industry.

Combining these mutual-recognition agreements with developments like the ACAS program, we are moving away from the burdensome screen-everything-at-the-airport model to a more risk-based supply-chain model. And this is a model that distributes the responsibility among all the participants in the chain. The result should be a more secure and efficient flow of goods through the system.

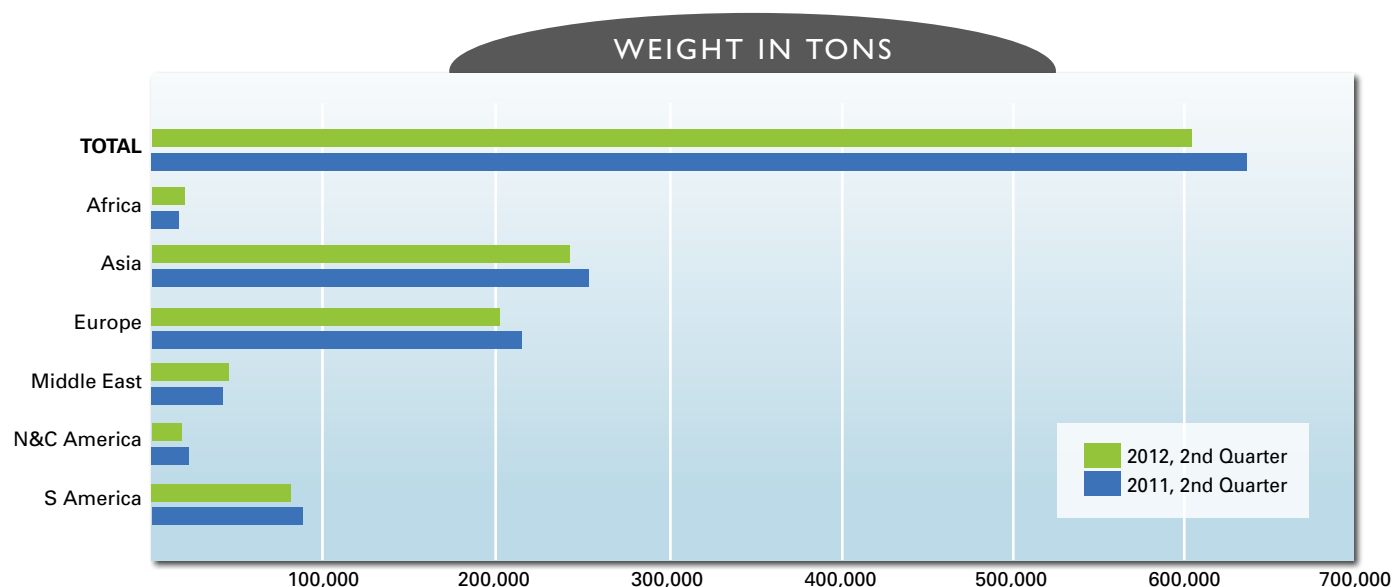
Despite the challenges that face us, I think we'd all agree that it's a fascinating time for our industry. I am excited and energized to be back at the helm of the great team at Delta Cargo as we work together to build a world-class operation with industry-leading customer service.

# CASS-USA Market Monitor

CASS-USA Market Monitor appears in every issue of CNS Air Cargo FOCUS. It is designed to provide an overview of the results of the most recent quarter and highlights both the year-to-date activity and monthly review of traffic originating from the USA as processed by CASS-USA. More detailed reports are available to CASS-USA Participating Carriers and CNS Endorsed Agents. Contact Michael Ludovici at Cargo Network Services at (786) 413-1000 or mludovici@cncs.us for more information.

2012 Weight in Tons		2011 Weight in Tons		2012/2011	
Region	2nd Quarter	Region	2nd Quarter	Region	2nd Quarter
Africa	14,653	Africa	14,163	Africa	3.5%
Asia	242,776	Asia	252,861	Asia	-4.0%
Europe	206,891	Europe	224,356	Europe	-7.8%
Middle East	45,389	Middle East	44,578	Middle East	1.8%
N & C America	19,967	N & C America	20,900	N & C America	-4.5%
S America	78,240	S America	80,488	S America	-2.8%
<b>Total</b>	<b>607,916</b>	<b>Total</b>	<b>637,346</b>	<b>Total</b>	<b>-4.6%</b>

2012 Shipment Count		2011 Shipment Count		2012/2011	
Region	2nd Quarter	Region	2nd Quarter	Region	2nd Quarter
Africa	28,068	Africa	27,616	Africa	1.6%
Asia	263,621	Asia	282,446	Asia	-6.7%
Europe	231,140	Europe	248,831	Europe	-7.1%
Middle East	54,083	Middle East	55,990	Middle East	-3.4%
N & C America	28,035	N & C America	28,360	N & C America	-1.1%
S America	72,553	S America	74,970	S America	-3.2%
<b>Total</b>	<b>677,500</b>	<b>Total</b>	<b>718,213</b>	<b>Total</b>	<b>-5.7%</b>



## June

During the month of June, total US export revenue decreased 3.1% y/y, up from -4.8% and -10.4% the prior 2 months, up against a difficult +15.3% year-ago comparison. Total U.S. export tonnage increased 0.3% y/y in June, also improved from -5.3% and -10.4% the previous 2 months, up against a tough +10.1% 2011 comp. Yields fell 3.4% y/y,

decelerated from flat -0.6% and -0.3% the prior 2 months, and facing an +4.7% year-ago comparison. Tonnage to Asia (representing 41.9% of tonnage) decreased 12.1% y/y, decelerated from -4.0% and +3.6% in March and February. Export tonnage to Europe (representing 34.7% of tonnage) increased 4.6% y/y in June, rebounding from -5.5% and

-12.1% the prior 2 months. On a sequential basis, June revenue and volumes increased 9.6% and 11.4%, respectively, while yields increased 1.7%. Overall, 2Q proved to be in-line with 1Q, helped by greatly improved June data, however, we remain cautious looking ahead to July as it is historically seasonally weaker than June.



When I grow up  
I want to work  
for Virgin



virgin atlantic  
cargo

It's our people that make the difference.