

The World's Best-Read Air Cargo Publication

September 2019 / No. 874



HEALTHCHECK FOR CARGO:

Pharma transport

Could growth flatline as the rising star of air cargo faces new challenges?

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AN OVERSIZE CHALLENGE: Graham Witton

Dreamlifts on the up as energy sector fuels demand for Antonov behemoths

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FORWARDERS

DSV closes in on top spot with Panalpina purchase

DSV has completed its acquisition of Panalpina in a deal worth \$5.5bn.

The combined company, DSV Panalpina, is the second-largest airfreight provider in the world – DHL Global Forwarding currently leads the pack. DSV Panalpina has a workforce of 60,000 and a presence in 90 countries, and its revenue is expected to be DKK118bn per year, making it the fourth largest forwarder on this measure.

"We have been working extremely hard since we first announced the deal on April 1," said DSV chief executive Jens Bjørn Andersen in a conference call on the day of the completion. "Both sides have done a remarkable job

"As of today, we are one company, which means that we are now the second-largest provider of airfreight in the world. We are also now the third-largest provider of seafreight and we retain our position as the fourth-largest provider of road freight," he added.

DSV now has full control over



Jens Bjørn Andersen has become chief executive of DSV Panalpina

Panalpina and upon completion, Andersen and Jens Lund became chief executive and chief financial officer, respectively, taking over from Stefan Karlen and Robert Erni who previosuly occupied those roles at the Switzerland-headquartered forwarder.

The entire integration period is expected to take two to three years, with most of the operational integration being completed within two years.

"As we move forward with the integration, it is our firm intention that

our customers continue to experience an uninterrupted, high level of service," DSV stated.

The company expects to achieve annual cost synergies of around DKK2.2bn. These cost synergies are expected to have full-year effect by 2022 and will primarily be derived from the consolidation of operations, logistics facilities, administration and IT infrastructure.

Next month's *Air Cargo News* will feature an in-depth look at what the deal means for the airfreight industry.

AIRLINES

Volga-Dnepr restructures

The Volga-Dnepr Group has announced it will restructure the business after performance in the first half of the year was below expectations.

The group, which includes AirBridgeCargo (ABC), Volga-Dnepr and ATRAN, said that its restructuring plan was aimed at quality enhancement, cost reduction and the development of specialist services.

As part of the restructuring, Nikolay Glushnev will become general director of ABC. Reports suggest the scheduled airline's current chief executive, Sergey Lazarev, will leave along with Volga-Dnepr Group vice president for sales and marketing, Robert van der Weg.

The group declined to comment on the reports that Lazarev and van der Weg would be leaving the company.

Beyond Glushnev's appointment and a "restructuring of the management team", details of what the restructuring would entail were thin on the ground and the company declined to comment further.

"[Glushnev's] key focus will be to restore ABC customers' confidence," the airline group said.

→ Continues on page 4



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CONTAINER SHIPPING

BOXING CLEVER? Container industry set for capacity crunch





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AMERICAS EXPANSION:

Korean Air Cargo will upgrade its Incheon – Anchorage – Miami – Sao Paulo – Santiago – Lima – Los Angeles – Incheon B777F service from two to three times a week. Meanwhile, it has cut services to three domestic airports due to falling demand.

BATTERY BAG MOVE:

Cathay Pacific Cargo has introduced a new fire containment bag approved by the US Federal Aviation Authority and thoroughly tested that enables it to carry standalone shipments of lithium-ion batteries safely.

NEW OZ HUB:

Ten of Australia's major freight firms have entered a memorandum of understanding with Western Sydney Airport, due to open in 2026, to help develop design concepts for cargo facilities at the new hub and discuss potential operations.

FEDEX DITCHES AMAZON:

FedEx has moved to distance itself further from Amazon, stating that it will cease delivering packages for the e-commerce giant in the US. Analysts suggest FedEx increasingly sees Amazon as a competitor.

KALITTA-JAL TIE-UP:

Ypsilanti-based Kalitta Air has begun operating three Boeing 747-400F flights a week between Tokyo-Narita and Chicago O'Hare under a codeshare agreement with Japan Airlines (JAL).

AIRLINES

→ Continues from page 1

The group said that the changes come as the three carriers saw cargo volumes decline by 6% year on year to 2.6bn freight tonne km in the first half – 20% below expectations and budget.

"Decrease of the world cargo market, overcapacity and operational hurdles prevented the group's businesses profitability," the airline group said.

"The group would like to thank its customers and partners for their support throughout the years of development and believes the decisions aimed at restructuring of management and increasing operational effectiveness will allow it to get back to the growth strategy this year," it stated.

"The restructuring is also focused on keeping the high level of service quality for the customers worldwide."

Glushnev has more than 14 years of experience in the air cargo sector and has held various positions within ABC including director of operations.

The 6% decline in cargo traffic is a reflection of wider market performance. IATA statistics show cargo volumes fell 3.6% over the first six months of the year, although its figures do not include charter volumes.



ABC's restructure will help it return to growth while maintaining service levels

The market decline will be more keenly felt by those airlines looking to add capacity and Volga-Dnepr has been rapidly expanding its fleet over recent years with several headline-grabbing letters of interest signed for Boeing freighters.

This is not the first sign the group has been under pressure. Last year, the airline stopped working with charter brokers, but this year it performed a U-turn on this.

Mike Hill, director of freight at broker Air Partner, said of the decision: "Following Volga-Dnepr's decision in 2018 to stop working directly with brokers, Air Partner actually saw a significant increase in An124 projects to a record high. It seems our clients understand the value that our role adds to such projects.

"We of course welcome Volga-Dnepr's decision to resume working with charter brokers. In fact, on the day of the announcement, we were the first broker to fly with them again.

"Their decision will help to rebuild brokers' relationships with them and provide us with more choice in the market, which will benefit our clients."

Partner airline CargoLogicAir is also undergoing a restructuring, with David Kerr set to leave the chief executive role as that position is combined with that of the chief operating officer, currently Frank de Jong.

GROUND HANDLERS

Swissport to target further acquisitions

Ground handler Swissport has said it will target further acquisitions after a refinancing of its debt. The group refinancing includes €410m of senior secured notes, €250m of senior notes and a €850m term loan B facility.

Swissport will use the net proceeds to repay existing debt.

"The successful refinancing significantly increases our cash position and enables us to further enhance our leading global market position through organic growth opportunities and selective bolt-on acquisitions", said Eric Born, president and chief executive of Swissport International.

"At the same time, we continue to focus on improving our customer service delivery and reducing our cost structures across the globe."

The handler has been busy acquiring businesses over recent years and in February became the sole owner of Heathrow Cargo Handling.

EDITOR'S COMMENT

Damian Brett



A beautiful partnership

Big is beautiful, or so the expression goes. That certainly seems to be the belief held by the leaders at Danish freight forwarder DSV, which over the last few years has embarked on an expansion strategy that has seen it grow to become one of the world's top four freight forwarders in terms of revenue.

Its latest purchase is that of Switzerland-based Panalpina – DSV's largest yet. The move has propelled the company to the upper echelons of the industry with the merged entity set to become number two in the airfreight market, number three in seafreight and one of the top four in road transport.

So far, integrating the companies that DSV has bought has gone smoothly – from the outside at least – and analysts often hold up the Denmarkbased forwarder as a shining example of how to expand through acquisitions while

maintaining margins.

However, being big does come with its challenges – just look at the world's largest passenger airliner, the A380, which Airbus announced this year would no longer be produced from 2021 because of a lack of interest.

There are plenty of pitfalls DSV will face over coming years as it attempts to bring the two companies together. Offices and logistics facilities will need to be merged, customers and key members of staff could leave for pastures new, IT

systems will need to be implemented and aligned, and there is also a danger that Panalpina's business could act as a drag on DSV's margins.

But analysts' take on the deal seems to indicate this scenario is unlikely, based on DSV's past performance after acquisitions.

One analyst pointed out that DSV's takeover of UTi in January 2016 is seen as its most successful merger to date, with the integration completed in one-and-a-half years despite it initially being expected to take around three years.

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AIRLINES

Cargolux strikes fresh deal with unions on pay

All-cargo carrier Cargolux and unions LCGB and OGBL have finally come to an agreement over two new collective work agreements (CWAs).

The agreements will result in "substantial improvements" for the 1,300-plus employees covered by the airline's collective work agreement, the groups said.

They include a salary increase of 6% for ground staff and 4% for pilots over their four-year duration.

Staff hired since December 2015 will "benefit significantly" from additional adjustments to salaries as well as off-day and vacation entitlements, bringing all staff to similar levels.

One agreement covers the period between December 1 2018 and December 31 2019, while the second takes effect from January 1 2020 to December 31 2022.

Cargolux president and chief executive Richard Forson said: "This agreement cements job security within our company while contribut-



New agreement with LCGB and OGBL covers both ground and air staff

ing to Cargolux's sustainability on both social and economic fronts.

"Building on this solid foundation, we can strengthen our position as a leading player in the global airfreight industry."

LCGB union secretary Paul de Araujo added: "The improvements in the new agreement became necessary after the employees' concessions made in the previous collective labour agreement. "The new agreement addresses the main concerns of our members; a salary increase, improved work-life balance for employees, and the pilots' flight time limitations.

"The elimination of what has often been referred to as 'B-Scale' should make it possible for Cargolux to hire the staff it needs."

OGBL central secretary Michelle Cloos commented: "We are happy that the social partners could negotiate a substantial salary increase and measures improving the work-life balance of Cargolux employees.

"This is a very important recognition of the employees' efforts during the last years and their contribution to the good financial results of the company for all Cargolux employees, ground staff and pilots."

Talks over the new CWAs have been taking place for years, with the unions at one stage gaining approval from their members to threaten strike action.

PORTS

AIA set to turn into hub for perishables

Hendry County in South Florida and the current operator of Airglades International Airport (AIA) have sought approval from the US Federal Aviation Administration (FAA) to convert the airport into an all-cargo and perishable goods logistics hub.

The parties said the FAA had deemed their application under the Airport Investment Partnership Program as "substantially complete".

AvPORTS has been named by Hendry County as the airport's new operator, with Star America as private investor and equity provider.

Hendry County said it hopes the hub will improve flows of perishable goods from Latin America into central America and the rest of the world. Its figures show that 86% of Latin American perishables arriving in the US by airfreight in 2017 came via South Florida.

Freighter operator 21 Air has expressed an interest in starting operations at the airport when it opens.

PUTZGER PERSPECTIVE

Ian Putzger



E-commerce forces the case for collaboration

Commenting on Air Canada Cargo's 12.1% dip in revenues in the second quarter, cargo vice president Tim Strauss said segments like e-commerce, pharmaceuticals and perishables had bucked the downward trend and continued to grow.

The slowdown in international air cargo traffic in recent months is exposing a divergence. While traditional airfreight commodities like electronics have lost momentum, e-commerce has roared on; pharmaceuticals and perishables – traditional niches that have more recently moved into the mainstream – also continue to perform strongly.

Rockford airport (RFD), which markets itself as the hassle-free alternative to Chicago O'Hare, declared in August that it had seen 55% growth in throughput last year, whereas cargo activity at its big neighbour declined.

E-commerce has been the main driver of growth at RFD, which is the second-largest US hub of UPS, and it has seen rapid growth in freighter activity for Amazon.

Yields in e-commerce are another matter, of course, but the volume involved is hard to ignore.

Air Canada is pursuing this, but it's not a case of flipping a switch. Strauss reckons it will be a year before it is ready to launch an e-commerce service.

Investment in technology, tools and training is a huge chunk in such an undertaking, but will only get you so far. Brian Bourke, vice president of marketing at SEKO Logistics, stresses that it has become more and more difficult to go it alone in this fast-changing e-commerce world. His company has partnered with several technology and e-commerce solutions providers over the past year.

Canadian courier and logistics provider eShipper, which has described itself as "Expedia for freight", is currently renting warehouse space in Vancouver from a competitor, which refers clients to the new partner in Toronto when its own facility there is full.

"We all have to work together and be smarter," commented Imtiaz Kermali, eShipper vice president of sales and marketing. More and more operators are coming to see collaboration as the way to stay in the game and grow, and technology allows them to align themselves without twisting their set-up.

Ocean carriers, marine

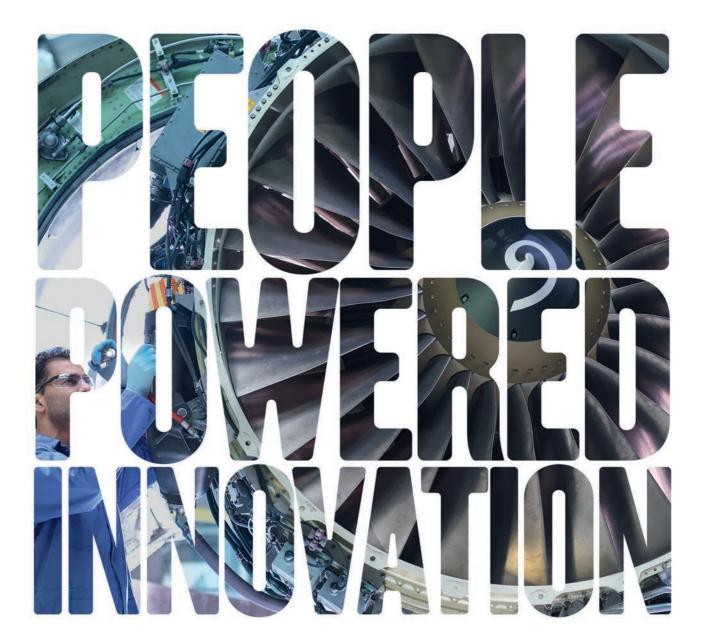
'While traditional airfreight commodities like electronics have lost momentum, e-commerce has roared on'

terminal operators, airlines, airports and handlers are increasingly looking for collaborative solutions.

Nowhere is this more acute than in the fast evolving e-commerce arena, but the case for collaboration is everywhere.

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BREXIT

Air cargo sector critical of UK government tender

A UK government tender calling for companies to transport trucks, trailers and vans loaded with critical goods via either aircraft, rail or ship in the event of snarl-ups on the border following Brexit has been criticised by the air cargo sector.

The four-year agreement will start on a September 18. It requires a framework to be put in place for the transportation of freight vehicles – meaning vans, trucks, lorries and trailers – between the UK and the European Economic Area using aircraft, ships or rail.

The scheme is intended to "meet the strategic objective of supporting the continued flow of category one goods in light of disruption events", according to the tender document.

Suppliers securing a place on the framework agreement will have the opportunity to take part in 'call-off' mini-competitions for freight capacity contracts when they come up.

"The first of these is expected to be in place as part of the Government's contingency planning for a 'No Deal' European Union (EU) exit on October



Disruption at Dover last year caused delays for trucks on the approach to the port

31," the tender states.

Category one goods are those considered critical to the preservation of human and animal welfare and/or national security, such as medicines, medical devices and military items.

On the freighter front, the only aircraft that can realistically handle a lorry are larger Antonovs, such as the An-124.

However, there are only around 20 of these in civil operation and they are designed for use in humanitarian aid, natural disaster, conflict and oversized cargo operations.

Commentators have said that you could load only two or three 40 ft trailers on an An-124, making the operation costly and inefficient.

It has been suggested that it would be easier to transport the cargo as a typical airfreight operation, breaking it down and putting it back on a truck at the destination.

The move comes amid concerns that if the UK leaves the EU without a deal allowing goods to continue moving freely, there could be huge hold ups for Road Feeder Service providers and hauliers at ferry ports.

PERISHABLES

Oslo – Nanjing service boosts seafood trade

Oslo Airport received a boost to its seafood ambitions on September 1 when Suparna Airlines started a twice-weekly Boeing 747-400 freighter service to Nanjing, China.

The service out of the Norwegian capital operates on Thursdays and Sundays, arriving in Nanjing the following day.

Nanjing Airport is said by Oslo airport operator Avinor to be well positioned to serve the growing demand for fresh Norwegian seafood in China.

Martin Langaas, director cargo for Avinor, said: "We expect seafood up to about NK250m in export value annually on this route."

The news is a welcome boost to the airport's fast-growing perishables operation, which was dealt a blow earlier in the year when a deal with cargo handler WFS to operate a huge new seafood centre fell apart.

Meanwhile, Russian authorites have ramped up a ban on Norwegian food imports to include salmon transhipments, forcing operators to re-route flights.

SHIPPER SPOTLIGHT

Striving for zero by 2050

The UK government recently set out its ambition to achieve net zero greenhouse gas emissions (GHGs) by 2050, an aim fully supported by the Freight Transport Association (FTA).

But with the number of flights expected to double within the next 20 years, the aviation sector faces big challenges on its journey to decarbonisation.

After all, it operates in a complex environment: high altitudes, extreme temperatures and safety-critical operations make it one of the transport sector's most difficult areas to decarbonise.

As a result, carbon offsetting – compensating for aviation emissions using projects that reduce emissions elsewhere by

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an equivalent amount – will be essential.

Our view is that the UK should focus on the Carbon Offsetting & Reduction Scheme for International Aviation, created by the International Civil Aviation Organisation, instead of developing its own national offsetting initiative.

Following the successful cross-channel flight of a Rolls-Royce and Airbus 'E-Fan' concept plane, aviation experts have envisaged that hybrid or all-electric planes could be in use by 2050.

In addition to modernising airport infrastructure, a fundamental redesign of the aircraft would be required. Experts have also warned that the availability of lighter

And while smaller electric flight demonstrator projects are also underway, technological focus should be on the bigger aircraft, in the view of the FTA.

materials presents another

challenge.

With Airbus predicting that the required technology would not be viable in larger commercial aircraft until the 2030s, and a typical aircraft fleet replacement taking around 20 years, the deadline appears to be closing in.

Unless a long-term solution can be found, governments may be forced to reduce the number of flights to ensure they stay within the imposed carbon limitations.

Efficient logistics is vital to keep Britain trading, directly having an impact on more than 7m people employed in the making, selling and movement of goods. With Brexit, new technology and other disruptive forces driving change in the way goods move across borders and through the supply chain, logistics has never been more important to the UK.

Alex Veitch

A champion and challenger, FTA speaks to Government with one voice on behalf of the whole sector, with members

'The **aviation** sector faces **big challenges** on its journey to **decarbonisation**'
Alex Veitch, FTA

from the road, rail, sea and air industries, as well as the buyers of freight services such as retailers and manufacturers.

Alex Veitch, head of multimodal policy, FTA

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AIRLINES

A\$1bn deal seals A321P2F debut



Qantas chief executive Alan Joyce with Australia Post's Christine Holgate

Australia Post and Qantas Freight have announced an expanded domestic and international airfreight agreement to support the growing demand for e-commerce parcels.

Qantas said the seven-year deal is valued at over A\$1bn. It will give Australia Post customers access to Qantas Freight's dedicated freighter aircraft, priority access to the cargo space on up to 1,500 Qantas and Jetstar passenger flights to over 110 destinations each day and space on partner airlines globally.

It will also see the introduction of up to three Airbus A321P2Fs (passenger to freighter converted aircraft) to the freighter network used for Australia Post.

Qantas will be the first airline in the world to operate the A321 as a freighter aircraft.

The prototype conversion of the A321P2F will be completed by the end of this year, while the supplemental type certification (STC) is expected to be obtained in early 2020. The first A321P2F is due to enter the fleet in October 2020.

Each A321P2F will add nearly 50% more capacity - or an additional nine tonnes - compared with the existing Boeing 737 freighters.

"Australia Post plays a critical role in connecting Australian businesses and communities to each other and the rest of the world, and with the continued growth in online shopping, we can now take it to new heights," said Christine Holgate, chief executive and managing director, Australia Post.

DIGITAL

Successful app trial heralds end-to-end cargo tracking

ULD firm Unilode Aviation Solutions and wireless device manufacturer OnAsset Intelligence have completed trials of their smartphone app that can track Bluetooth-equipped ULDs through an aircraft's WiFi system.

The trial, which was conducted on a flight from Hong Kong to Zurich, demonstrated that the Bluetooth connection between container tag and smartphone functioned across flight

Data transmitted throughout the flight included location, temperature, humidity and light in the aircraft's belly.

"The proven capability of end-toend air cargo tracking will open up new avenues in transportation safety by allowing live in-flight temperature monitoring and automated load sequencing control before take-off," Unilode said in a statement.

The company is currently equipping its fleet of 140,000 cargo containers with Bluetooth-based tracking devices.

Unilode's customers will gain access to ULD tracking data and additional information such as temperature and shock records.



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AIRLINES

Freighters escape HKIA disruption

The Hong Kong Association of Freight Forwarding and Logistics (HAFFA) has warned that the recent disruption to operations at Hong Kong International Airport (HKIA) could have a far-reaching effect on the territory.

Protests at the airport disrupted bellyhold freight for three days in August, but overall, cargo operations escaped relatively unscathed.

However, there are concerns that air cargo may not be so lucky next time.

HAFFA said it "strongly opposes" the "violent disruption" to the normal operations of HKIA.

"If such disruption continues, it will undermine Hong Kong's reputation as an international transportation hub and the world's busiest cargo

"It will have a far-reaching impact on Hong Kong and have a serious, adverse effect on the economy as a whole."

The association added that it respects the freedom to express opinions lawfully and peacefully, calling on all parties to resolve their differences through rational dialogue and constructive communication.

HAFFA chairman Brian Wu told

Air Cargo News that supply chain disruption caused by the protests was minimal.

He described the backlog as "not a big issue", explaining that it is currently slack season and that freighters had continued to operate as normal during the disruption.

He added that there was no spike in prices, which would be expected if air cargo operations had ground to a halt.

Rates, he said, remained low because of the downturn in the global economy and the China-US trade conflicts.

This view was echoed by Peter Stallion of airfreight derivatives broker Freight Investor Services.

"Political unrest in Hong Kong encroaching onto HKIA has not had a noticeable effect on spot rates," Stallion said in August.

"Perhaps a blessing in disguise, disruption has come at the low point of the airfreight slack season, with the swell of freighter capacity providing adequate lift to cover any backlog.

'Market participants may have cause for greater concern should such disruption persist into the fourth quarter."

Increased security

The airport itself hopes that extra security measures it has put in place will help avert further disruption.

The Airport Authority obtained an interim injunction to "restrain persons from unlawfully and wilfully obstructing or interfering with the proper use" of HKIA.

The authority also limited access to the airport terminals, only allowing passengers to enter if they were in possession of a valid travel document and air ticket or boarding pass for a flight. Airport staff had to show relevant identification documents.

Checks were set up at the entrances to terminal buildings.

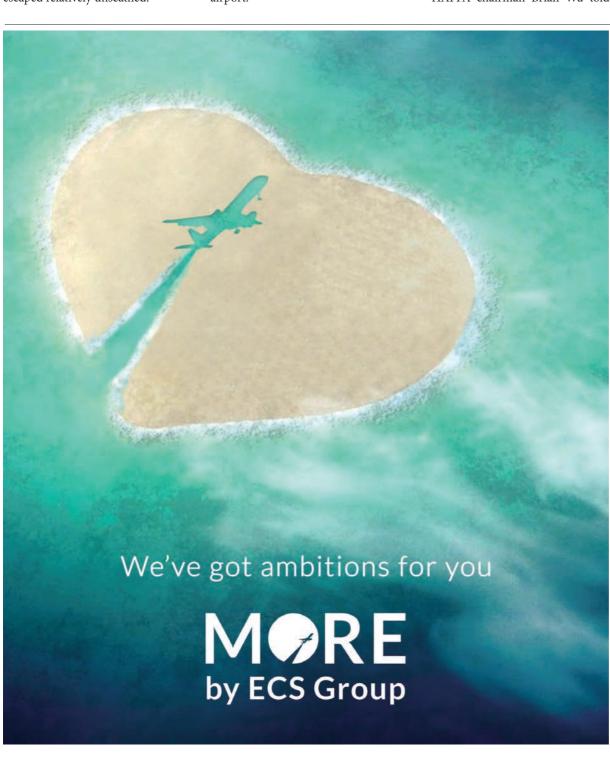
Cathay Pacific Cargo general manager cargo commercial Nelson Chin said that the airline was hopeful that the security measures could avoid a repeat of the situation.

"It is perfectly understandable that the events over the past few days have led to concerns about whether schedule integrity can be maintained," he said.

"We trust that the improved measures at HKIA will provide greater confidence that cargo operations can fully resume, and once more serve the industry through Hong Kong and on Cathay Pacific to the standard to which you are accustomed."

The protests in Hong Kong, catalysed by a controversial extradition bill, have been ongoing for two months.

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EXPRESS

UPS commits to delivery by drone

UPS has applied to the US Federal Aviation Administration (FAA) for Part 135 certification, which would enable the express firm to operate commercial drone flights in its delivery network. The drones would be operated through a subsidiary business called UPS Flight Forward Inc.

If the application is approved, UPS Flight Forward will become one of the first fully-certified, revenue-generating US drone operations to complete routine flights.

UPS said that the certification "lays the foundation for drone flights beyond an operator's visual line of sight and for flights occurring day or night".

Currently, such flights are highly restricted in the US and are approved only by exception.

"UPS is committed to using technology to transform the way that we do business," said Scott Price, UPS chief transformation and strategy officer.

"UPS's formation of a delivery-bydrone company and application to begin regular operations under this level of certification is historic for UPS and for the drone and logistics industries overall."

In March, UPS and drone maker Matternet signed a deal to deliver medical samples via unmanned drones for healthcare company WakeMed.

The flights, which took place at the WakeMed Raleigh Campus in North Carolina, marked the first FAA-sanctioned use of a drone for routine revenue flights involving the transportation of a product under a contractual delivery agreement.

Economy service

Meanwhile, in order to capture a slice of the surging cross-border e-commerce market – forecast to be worth \$1trn by 2020 – UPS has launched an international delivery service for small- and medium-sized retailers: UPS Worldwide Economy.

This service connects key e-commerce destinations across the world, providing customers with an affordable shipping option for non-urgent deliveries. Initially only available in the US, Canada, China, Hong Kong and the UK, the service will expand to other key global markets "in the near future", a UPS spokesperson said.

With an eye on the export ambitions of the UK in a post-Brexit world, the spokesperson added: "The UPS Economy service benefits the UK. Businesses in the business-to-consumer and business-to-business space that are looking to export to key

e-commerce destinations across the world, but have been waiting for a more affordable way to ship internationally.

"Exporting opens doors to new customers and can help businesses to diversify revenue to offset economic shifts."

UPS believes that by 2022, crossborder online sales will make up 20% of global e-commerce transactions. "Our customers are seeking growth opportunities by doing what UPS did decades ago – they're going global," said Nando Cesarone, president of UPS International.

"The opportunities are even greater in today's dynamic international trade environment, with crossborder e-commerce set to grow two times faster than domestic e-commerce.

"The UPS Economy service enables small businesses to compete like micromultinationals," Cesarone added.

"While the 'last mile' gets a lot of attention in our industry, we know small businesses look carefully at the first mile. With the same driver, same pick-up service and competitive rates, we're making that first mile easier and more economical for even the smallest of our customers."



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Pharma sector to take centre stage

The air cargo sector must streamline to make the most of the opportunities in healthcare, writes Rachelle Harry

'Many companies will not be able to compete if their supply chains cannot adapt to this new world'

Larry St Onge, DHL Life Sciences

n its most recent annual review, IATA reported a noticeable decline in air cargo demand growth. In 2018, the market grew by 3.7% compared with 9.7% in 2017 and this slow down has continued into this year.

The pharma industry, however, offers air cargo a high-margin sector that continues to grow – so much so, that DHL anticipates global spending on healthcare, pharmaceuticals and medical devices will grow at over 5% annually in the next five years.

In July, DHL Customer Solutions and Innovations hosted a conference call analysing the results of a survey it carried out with more than 450 key players in the life sciences industry on the subject of future pharma trends.

Based on the results, the logistics firm has identified ten trends it believes will impact pharma supply chains over the coming years.

10. Pharma companies are trying to improve market access by speeding up the transport of goods to existing locations and expanding into new ones. But this can only be achieved if cargo operators, including air cargo companies, branch out into the same locations as businesses in the pharma industry and expedite their processes.

9. Supply chain resilience is growing in importance and pharma



organisations are looking to build faster, more flexible and more responsive supply chains. Air cargo and logistics firms can help by minimising the number of links in supply chains.

8. A rising number of pharma businesses are using new technologies, like robotics, to improve efficiency and speed in areas like packaging and inspecting. Robotics is also being used more in other industries, for example, in certain areas of freight distribution.

7. Regulatory compliance is growing worldwide. Pharma businesses are complying with Good Manufacturing Practice requirements and when drugs are passed to logistics companies, they expect Good Distribution Practice standards to be met.

6. Sustainability and green supply chains are becoming more important, despite only 10% of customers acknowledging so in the 2018 survey. Since then, pharma and freight companies have been working together to reduce their carbon footprint and use greener transport.

5. Following the introduction of Amazon's PillPack service in 2018, new concepts – such as direct-to-pharmacy, ward and lab – for more direct drugs distribution are materializing

4. Pharma and cargo companies are trying to realise synergies in areas such as network optimisation and distribution centre consolidation.

3. Both sectors are focusing on streamlining operations to improve

cost efficiency and service level optimisation, not least as the cost of many drugs is increasing faster than gross domestic product. This is problematic for governments trying to lower healthcare costs.

2. To save time and money, and improve efficiency, pharma businesses are digitising supply chains and using data analytics.

1. More than three quarters of the professionals who took part in the DHL survey identified temperature and cold chain as their top priority. This has topped the list for the past three years. Pharma and freight organisations continue to work together to deliver disruption-free temperature-controlled logistics.

Decade of transformation

"We are on the cusp of a decade of fundamental transformation," says Larry St Onge, global president, DHL Life Sciences and Healthcare.

"At the centre of all of this are the supply chains that form the end-to-end eco-system for the sector. Many companies will not be able to compete in future if their supply chains cannot adapt to this new world. Topics such as increasing market access, leveraging digitalisation and new technologies in the supply chain, and driving network optimisation are all important to the survival of companies in the industry."

→ Turn to page 15 for an in-depth look at the current air cargo pharma market

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Looking to the long term

Cargolux president and chief executive Richard Forson sees flexibility as key when navigating through unpredictable market conditions, writes Damian Brett

argolux is going through an interesting period in its 49-year history: on one hand the all-cargo carrier enjoyed record profits last year, but on the other, 2019 is shaping up to be a tough year for the whole industry.

The airline also has some long-term decisions to make as Boeing continues to wind down production of the Boeing 747 freighter that makes up Cargolux's entire fleet.

President and chief executive Richard Forson takes a pragmatic view of the current market conditions and admits that some may find his outlook pessimistic.

"In our business plan for the year we had foreseen a reduction in yields," he says. "In terms of volumes, we expect them to be slightly lower this year and possibly into next year.

"Some people may say I am too pessimistic, but we have had two good years. Unfortunately our industry is very cyclical and volatile, and at this point in time there is so much uncertainty regarding future trade flows," he continues.

"There are two points of view regarding the rest of the year. Firstly, that it could be a very short peak period of three or four weeks, or secondly, if companies are not shipping in goods now, come the peak season they could be short of inventories and need to utilise airfreight.

"I think that at the moment, people are looking more at the downside than the upside."

Agile and flexible

Forson says that the key to managing an airline in such unpredictable times is to be "agile and flexible" when it comes to fleet deployment.

This year, for example, the airline is adding two scheduled destinations – Jakarta in Indonesia and Santiago in Chile

The Jakarta flight will be the only



'You are going to get the downturns. It is how you manage them to be ready for when the upturn does come in that is important'

Richard Forson, Cargolux



direct freighter service between Europe and Indonesia, and will cater for commodities such as apparel, footwear, pharmaceuticals, perishables and live animals.

The market isn't new to Cargolux – it has been doing business in Jakarta for more than 23 years, mostly through partnerships and interline agreements.

Meanwhile, the Santiago flight will cater for perishables, flowers, spare parts, pharmaceuticals, building materials and electronics.

"We are also reshuffling in other areas where we are seeing demand not matching up to expectations, or where the economics of the flights are not viable. It is a continuous process," says Forson.

And despite the tough market conditions, Cargolux is actually expanding its fleet this year.

Forson says that the airline will add three Boeing 747-400 extended range freighters this year.

Two of these have been purchased and one is on a medium- to long-term lease

Including the new freighters, the Cargolux fleet will stand at 30 aircraft, consisting of 16 B747-400Fs and 14 B747-8Fs.

"You are going to get the downturns," says Forson. "It is how you manage them to be ready for when the upturn does come in that is important.

"If volumes continue to be under pressure, these aircraft will go into our fleet in full-time service and then we will ground our 'power-by-the-hour aircraft', which are flexible capacity.

"At the same time we also fly scheduled services. From our customers' perspective, you don't want to keep stopping and starting services. All of these variables get taken into account when a decision [on network and fleet] is made."

Successful business areas

Two areas of the Cargolux business that performed particularly well last year were its ACMI leasing operation and charter flights.

Forson explains that the ACMI operation is mainly used by airlines to cover their heavy maintenance periods. However, he adds that Cargolux does also have one longer term arrangement.

On charters: "We really focussed on our charter business about two years back and over that period of time we have been continuing to build up the necessary skills.

"It's not that we didn't offer charters before that, but we have now made it an area of focus and it really began to deliver in 2017 and 2018.

"Even in the first half of this year, the charter team has been fairly successful in terms of the business that they are booking, which is a bit surprising given the market."

Looking into the future, Forson →

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the air cargo news interview: Richard Forson

→ is confident that there will continue to be a need for freighters, despite the influx of cargo-friendly B787s and A350s to passenger fleets.

"Maindeck capacity is always going to be required," he says. "In terms of passenger operations, the trend is for airlines to increasingly do point-topoint flights and avoid the hubs.

"For this, the aircraft should be full and then what tends to get offloaded first is the cargo.

"So that might possibly work in our favour. Forwarders want to consolidate all their pallets and freighters give them a chance to mix and match highand low-density cargo, whereas the belly carriers just want the highdensity cargo."

Fleet development

One challenge the airline will need to face up to in the coming years is how to develop its fleet.

At the moment, Cargolux exclusively operates B747Fs, which gives it a huge amount of flexibility when it comes to moving aircraft around its network

However, it is only a matter of time

until Boeing stops producing the B747-8F, and Forson admits there is a good chance that the aircraft could exit service between 2030 and 2040.

Although some could continue to operate beyond then, Forson points out that an aircraft of that age would require ramped-up inspection regimes and reduced intervals between checks.

"If you are prepared to do that, you should get back in the premiums for the loads that you carry because there will be no other aircraft," says Forson.

However, the B747 is not going to be the future mainstay of air cargo, so

'Maindeck capacity is always going to be required'

Richard Forson, Cargolux

where will the industry turn?

"I don't think either of the two major manufacturers [Boeing and Airbus] will be developing fourengine aircraft again, it will all be twin-engine aircraft," Forson says.

"And for me, a successful freighter has to be off the back of a successful passenger programme.

"We are going through the various scenarios now in terms of our long-term fleet planning: What it will look like? To what extent we can keep the B747s flying? Should we add to it? Should we change type sooner rather than later? Or should we wait until the manufacturers come up with a new freighter using the latest technology?"

Of the B777-200F, the current darling of the airfreight industry, Forson says he admires the aircraft but points out that the technology is more than 10 years old, so it is not a newgeneration freighter. It seems, then, that we will need to wait a bit longer to find out what will happen with Cargolux's fleet in the future.

NEXT AIR CARGO NEWS INTERVIEW



FACT FILE

- ◆ Luxembourg-based airline Cargolux saw net profits after tax increase by 72.7% year on year in 2018 to \$211.2m.
- ◆ The airline said that it had achieved the result despite a "global softening in market demand in the second half of 2018, a shorter peak period compared to 2017 and uncertainty regarding potential trade wars".
- However, cargo traffic declined by 0.8% in 2018 to 8.4bn cargo tonne kms, while its load factor slipped to 67.9% compared with 70.1% in 2017.

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COMMENT

'm writing this column shortly after Hong Kong **International Airport** was plunged into chaos as protesters occupied the main arrival areas, resulting in all passenger



flights being grounded for a couple of days.

Speaking to cargo contacts in Hong Kong, I was surprised to hear that they were not expecting delays to freight.

This is partly because the airport is one of the busiest freighter hubs in the world and all-cargo operations were unaffected by the passenger flight chaos.

The fact that freighters could keep flying demonstrated their importance to supply chains and also reminds us that predictions of their demise are greatly exaggerated, to paraphrase Mark Twain.

Freighters offer more capacity than passenger aircraft, they can carry a greater variety of cargo, can be easily chartered to meet demand and, most importantly, go where the cargo wants to go.

The level of control and the guaranteed capacity freighters provide are major reasons why e-commerce companies like Amazon and freight forwarders such as Flexport continue to expand their all-cargo networks.

Since the last issue of Freighters World, Amazon has inked a deal with aircraft lessor GE Capital Aviation Services for 15 Boeing 737-800 converted freighters (page 10), while Flexport has switched operator to larger production freighter B747-400F (page 4), although this move was also caused by a rift between the forwarder and previous supplier, Western Global, over service levels.

Freighters can fly where you want, when you want and with just the right amount of capacity. That is why they will continue to prove invaluable to supply chains for the forseeable future.

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Qatar Cargo homes in on top spot with another B777F order

Qatar Airways has ordered a further five Boeing 777 freighters as it continues to pursue its goal of becoming the world's largest cargo

US President Donald Trump and the Emir of Qatar, Sheikh Tamim Bin Hamad Al-Thani, both attended the signing ceremony, underlining the importance of the deal, which was first announced at the Paris Air Show in June.

The Qatar Airways order, worth \$1.8bn at current list prices, provides a boost for US-based Boeing, which has been under pressure following the grounding of its B737 Max aircraft recently.

Qatar Airways Group chief executive Akbar Al Baker said: "This order will enable Qatar Airways Cargo to grow to become the number one global cargo carrier this year in both fleet and network, and is a demonstration of our ongoing commitment to US manufacturing."

Boeing Commercial Airplanes president and chief executive Kevin McAllister added: "As one of the world's leading air cargo carriers, we are delighted that Qatar Airways continues to expand its freighter fleet with the B777F and we deeply appreciate their business and positive impact on Boeing, our employees, suppliers and communities."

The B777F has the longest range of any twin-engined freighter as well as a payload capacity of 102 tonnes.

"The aircraft's range capability translates into significant savings for cargo operators, fewer stops and associated landing fees, less congestion at transfer hubs, lower handling costs and shorter delivery times," commented Qatar Airways about the freighter order.

The Doha-hubbed airline saw cargo volumes increase by 10% year on year in 2018 as it continued to add capacity.

The carrier added bellyhold cargo capacity to several key destinations in its network and also received two brand new B777Fs in 2018

The freight division of Qatar Airways has witnessed significant fleet growth over the past few years – from three Airbus 300-600 freighters in 2003 to a fleet of 23 freighters and over 250 bellyhold cargo aircraft.

CARGOLUX ADDS IN XIAMEN

Freighter operator Cargolux Airlines has launched a third weekly frequency to Xiamen to meet growing demand. The new service, CV9721, is operated every Monday morning, departing Luxembourg at 08:10 with arrival in Xiamen on Tuesday at 04:40.

CEB STARTS FREIGHTER OPS

Philippine carrier Cebu Pacific (CEB) has moved into freighter operations, following the delivery of a converted ATR 72. The aircraft allows CEB to move cargo to and from destinations served by airports with short runways.

NEW B767F FOR FEDEX

FedEx has introduced a B767F to its European network – its first in Europe. The aircraft can carry 16% more volume than the A300F it replaces and will operate on its London – Paris – Dublin flight.

SHIPPERS TURN TO THE AIR

Shippers are expected to increasingly create their own air cargo networks to enhance their control over their supply chains, said Atlas Air Worldwide, which has benefited from this trend; it operates over 20 aircraft for e-commerce company Amazon.

EL AL ENDS B747F OPS

EL AL Israel Airlines has ended its Boeing 747-400 freighter operation in favour of partnerships with ASL Airlines and AirBridgeCargo. The company has flown 275,000 tons on its B747-400F services over the last nine years.



Chapman Freeborn recently used a chartered Maximus Air freighter to transport an MRI machine from Dubai to a hospital in the Maldives. The flight represented the first time that an AN-124 freighter had flown into Gan International Airport. The gateway had only completed a runway extension and other infrastructure upgrades in 2016. According to Chapman Freeborn: "Use of the Maximus Antonov aircraft provided significant cost savings when compared with an alternative proposal calling for three separate flights using smaller Ilyushin IL-76 aircraft."

Ethiopian Cargo adds new service to China

Ethiopian Cargo has added a new weekly Boeing 777F service to Chongqing in Southwest China.The service will have a full rotation of: Shanghai – Chongqing – Delhi – Addis Ababa – Lagos – Sao Paulo – Quito – Miami.

Ethiopian Cargo said the service would connect "the main destinations of three continents which cover a population of more than 3bn people.

"Located in Southwestern China adjacent to Hunan, Hubei, Guizhou, Shaanxi and Sichuan provinces, Chongqing serves as a node of China's Belt and Road initiative linking the country to its western neighbors," the airline added.

Group chief executive of Ethiopian Airlines, Tewolde GebreMariam, said: "We are excited to have launched a

freighter service to Chongqing.

"We are among the veteran carriers that started serving the People's Republic of China back in the early 1970s, a long-standing and multifaceted tie which has translated into a flourishing trade and investment, cultural and bilateral co-operation between Africa and China.

"Our new cargo service augments the development of China-Africa bilateral trade and expands on China's already growing Belt and Road initiative, while supporting our strategic initiatives to expand our global cargo operations."

As part of the airline's Vision 2025 strategic plan, Ethiopian Cargo's targets include annual revenues of \$2bn, 19 dedicated freighter aircraft, annual tonnage of 820,000 tonnes and 57 international destinations.

Flexport switches provider from Western Global

Freight forwarder Flexport has transferred its transpacific air charter operation from Western Global to a service run by Plus Logistics, a Nippon Cargo Airlines (NCA) subsidiary, and

A spokesperson for the company said that the switch was made without a single missed flight. Atlas Air operates five Boeing 747-400 freighters on behalf

The Flexport spokesperson explained that the production Boeing 747-400F freighters offered by Atlas are able to carry an extra 10 tons of cargo per flight. This, added the spokesperson, equates to an increase in capacity of around 9% compared with the previous operation.

The production freighters also have the ability to carry cargo that is oversized, because of their nose door capability.

There were also some service issues that remained to be resolved in the previous operation, the company admitted, although Western Global has disputed this suggestion.

Flexport first launched its twiceweekly scheduled flights between Hong Kong and Los Angeles in April last year.

The forwarder also offers a service between Hong Kong and Chicago

At the time, the company said that the move would allow it to control freight from end to end at a fair and predictable rate as well as having access to guaranteed capacity.

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ELCOVER 1

Flying fresh flowers to market is a specialist job. Mike Bryant looks at how some of the key airlines do so

oving flowers by air is big business and it is a job that requires careful handling. The challenge for all concerned is to maximise the shelf life of the blossoms at their destinations.

This means the air cargo carrier keeping them at as near a steady, cool temperature as possible throughout their journey from farm to retailer or end customer, while also ensuring that they reach their destination as quickly as possible.

Air France KLM Martinair Cargo (AFKLMP Cargo) is one of the big European carriers

moving large quantities of flowers. It flies about 70,000 tonnes of flowers a year, much of it in the run-up to important days in the European calendar such as Mothering Sunday, which is celebrated on different days across the world, Valentine's Day in mid-February, Russia's Back to School Day in September and Christmas.

AFKLMP Cargo measures its performance

in terms of moving flowers quickly at a low temperature in 'degree hours': the temperature of the flowers multiplied by the time taken to move them from source to destination.

The airline measures this using temperaturelogging sensors placed in flower boxes at the





Air France KLM Martinair Cargo flies about 70.000 tonnes of flowers a year, much of it in the run-up to important periods like Valentine's Day and Christmas

farm that are retrieved only when the flowers are delivered to the customer; these sensors measure temperature and other conditions in real time over the entire cargo journey and the data can then be checked and interrogated.

The flowers are usually received by the airline at a temperature of 0 to 2 degrees Celsius, and the aim is to maintain that as far as is possible.

Heat is generated by the flowers as soon as they are cut at the farm, the result of a natural process of metabolisation as the flowers begin dying once cut. This heat is allowed to dissipate because they are packed in boxes with air holes, but there is no way of preventing the generation of some heat around the cargo.

There are highs and lows in the demand for flower shipments but according to Eric Mauroux, AFKLMP Cargo's global head of perishables logistics, demand as a whole for flowers has continued to increase over the years.

Supply has also increased to meet that growing demand, but what has really changed in relation to the business of flower shipping is where those flowers are primarily grown.

The Netherlands - home of KLM and Martinair, of course - continues to be an important grower of flowers, but the advantageous conditions and labour costs of certain other nations have meant they have become of increasing significance in the business. In particular, Kenya in Africa, and Ecuador and Colombia in South America offer low costs and the right combinations of temperatures and elevation for growing flowers, and it is primarily from these locations that AFKLMP Cargo now flies these perishable shipments.

Roughly 60% of the flowers flown by AFKLMP Cargo from Latin America go to the US and roughly 40% to Europe, including Russia, says Mauroux.

The airline carries these flowers aboard its

Flower suppliers are increasingly being asked to promise freshness guarantees. Thus, we keep doing everything we can to create the best possible conditions Uta Frank, Lufthansa Cargo

KLM and Martinair Boeing 747 freighters out of Quito and Bogota: its passenger services out of South America simply do not have the capacity to move the flower tonnages required, especially when cargo capacity is constrained by the altitude these aircraft are taking off at in Quito, one of the highest capital cities in the world.

Likewise, the Franco-Dutch carrier's freighters serve the Nairobi to Europe flower market, the cargo flown into Schiphol for Europe's biggest flower auction, the Royal FloraHolland at Aalsmeer, from where they will be distributed overland by the importers.

The data logged by the sensors that accompany AFKLMP Cargo consignments can and have been used to perfect the flower shipping process and, says Maroux, evidence for that can be seen in the fact that the flowers it ships from Kenya are now taking only 300 degree hours to reach their customer - a saving of a whole day has been made in the shipping process as a result of recent improvements.

PERISHABLE CARGO

For many mainline carriers, transporting flowers represents an important part - though just one component - of their shipments carried under the general label of perishables. Lufthansa Cargo, another European carrier that moves large quantities of flowers every year, is a good example. "Flowers and plants are an important part of our business and represent approximately a fifth of our 'Fresh' service," says Uta Frank, Lufthansa Cargo product manager Fresh.

Like AFKLMP Cargo, it flies these flowers and plants primarily on the maindeck of its freighters plying the routes from Africa and South America to the German cargo carrier's European hubs, although they can also be found in some bellyholds of Lufthansa Group airplanes - mainly Brussels Airlines aircraft operating between Africa and Europe.

Says Frank: "With our decades of experience in transporting perishables, we are very well prepared to handle flowers and plants.

"We do our utmost to make sure that the transport is as fast and reliable as possible, and we store the goods in temperature-controlled environments whenever this is possible.

"High temperatures on the tarmac are challenging, thus we minimise the transit times,

for example by using parking positions near to perishables facilities. We also seek close co-operation with the relevant authorities to continuously optimise our processes and keep transport times at a minimum."

Such challenges are only getting greater, however. "Flower suppliers are increasingly being asked to promise freshness guarantees. Thus, we keep doing everything we can to create the best possible conditions for our customers during airport to airport transport," she says.

Lufthansa Cargo itself is already offering vacuum-cooling in Frankfurt in co-operation with the Perishable Centre there. Moreover, says Frank: "As part of the Air Cargo Community Frankfurt, Lufthansa Cargo is pushing digitisation of many ground processes. Our aim is to further accelerate transit and import times, especially for perishables, and to further optimise the cool chain for our customers with shortened processes and improved transparency."

VITAL ROLE

Emirates SkyCargo also offers a 'Fresh' service for the shipment of flowers, and it is a significant element of its product mix. Hiran Perera, Emirates senior vice president, cargo planning and freighters, confirms that Emirates SkyCargo carried about 50,000 tonnes of flowers last year.

"Flowers are an important part of the perishables business and we play a vital role in connecting major flower growing markets with distribution centres like Amsterdam," he says.

Emirates transports flowers on both its passenger and freighter aircraft. However, as with AFKLMP Cargo and Lufthansa Cargo, the majority of flower consignments are flown on its freighters.

Like its European carrier counterparts, the Dubai-based Emirates SkyCargo operates direct flights between flower producing markets like Kenya and Ecuador into Europe - specifically, the Netherlands. It flies six freighters from Nairobi to Netherlands every week and offers a four-times-a-week service from Quito to the Netherlands. These flights are operated by the carrier's B777 freighters, offering a capacity of around 100 tonnes per flight.

Emirates also transports flowers from markets such as Thailand, Sri Lanka, Ethiopia, Zambia and South Africa on passenger aircraft to various destinations.

Emirates SkyCargo transports a wide range of perishables and has developed its Emirates Fresh umbrella for these movements. The Emirates Fresh Breathe product predominantly caters to delicate perishables such as cut flowers, bouquets, cut fruits and vegetables. The cargo is temperature-controlled and benefits from prioritised ground handling.

"We consulted extensively with our customers in order to identify requirements for transportation for flowers and then we fine-tuned our own processes to match the requirements for flowers to arrive fresh at destination," says Perera.

"In addition, we introduced supporting products, such as the Emirates White Cover range of thermal blankets that protect cargo by providing thermal insulation and in Dubai we have the Emirates Fresh Ventilated Cool Dolly which

essentially maintains the correct temperature when cargo is moved from the ramp to the cargo terminal, and vice versa."

The market for flowers and how they are moved is changing, Perera believes.

"We are observing a trend where major flower producers are connecting directly with their end customers. This means that, in some instances, they are not looking to fly their flowers to a distribution centre but to the end destination directly. For example, in February 2019 we operated the first ever direct flower charter from Nairobi to Sydney. Similarly we also operated a flower charter from Quito to Los Angeles.

"There are also other developments such as hydroponics, which means that there are new emerging markets where perishables and also in some instances flowers are grown.

"We monitor market trends to ensure that we are able to deploy adequate capacity where there is demand," Perera states.

AN EVOLVING BUSINESS

Fatih Cigal, senior vice president of cargo marketing for Turkish Cargo, is also seeing the business of moving flowers by air changing.

"Flower transportation is a growing business in the global market," he observes. "Air transportation is becoming more and more important in flower shipping. Air transport, thanks to technological and systematic improvements, offers flower producers new opportunities that they have not previously enjoyed."

For Turkish Cargo, he says, this means that "in order to keep up with the times, investments are to be made continuously in perishable air cargo". The investments must first be made into the facilities, training, and certification required to transport perishables.

The carrier is building a larger, dedicated perishables facility at Istanbul Airport. It hopes it will be the most important perishables transit hub between Asia and Europe and provide better service at Istanbul's new mega-hub gateway, boasting a 1,100 sq m cold store, with a two degrees Celsius to eight degrees Celsius area for flower shipments.

Turkish Cargo carried more than 34,000 tons of flowers in 2018. It offers capacity for flowers flown at different temperature ranges in a total of 43 "special cargo spaces" on its aircraft, says Cigal.

As for the other carriers, moving blossoms from Africa and South America to Western Europe is the key trade lane.

The most important route on which the Istanbul-based cargo carrier flies flowers – more than 8,000 tons a year – is from Nairobi to the Netherlands. Other important routes are from Entebbe and Quito to the Netherlands.

Most of these flowers are carried on the maindeck of Turkish Cargo's widebody B747 and B777 freighters.

From Nairobi, Turkish Cargo operates to London Stansted, Narita, Maastricht and Riyadh, and from Quito it flies to Amsterdam, Beijing,

Manila, Jakarta and Taiwan.

As mentioned, the flowers are carried in air-conditioned aircraft for maximum freshness and shelf-life. "Moreover, all packages containing flowers must be stored in temperature-controlled rooms," says Cigal. "Our storage rooms are monitored instantly. The system automatically sends alerts in the event of any temperature deviation and we take action immediately. Retroactive reporting through telemetry system is also possible."

He continues: "A special cargo care team works in the warehouse to make sure flower shipments are in the suitable temperature-controlled room.

"In addition, there are data loggers in all storage rooms, so we can instantly monitor temperature and humidity through them." ◆

Emirates
SkyCargo
flower packing
operation. The
airline operates
direct flights
from countries
like Kenya and
Ecuador into
Europe







TWODECADES OF FREIGHTER

CHARTERS

With a professional career spanning more than 20 years, much of it working with Antonov aircraft, there is not much **Graham Witton** doesn't know about chartering a freighter



raham Witton has co-ordinated freighter charters for more than 20 years, ranging from TNT's compact British Aerospace 146 'whispering jets' to the leviathan Antonov An-225 that made its first commercial flight 18 years ago, writes *Roger Hailey*.

Witton says that the proudest moment in his professional career was when he and hundreds of spectators watched the only An-225 ever built land at Germany's wintry Stuttgart airport in December 2001. And he still has the charter contract with his signature as a memento.

He is a joint shareholder in Dreamlifts, the worldwide GSSA for Antonov Airlines, which is the international air transportation division of the aircraft design bureau, Antonov Company.

The airline's fleet includes the An-225, seven Ukrainian-built four-engine An-124s, one 60-tonne capacity An-22 turboprop freighter – an infill between the IL-76 and the An-124 – and one example of the niche five-tonne capacity An-26. The iconic six-engine An-225, with a payload of up to 250 tonnes, is currently undergoing an upgrade of its power units and is expected to return to commercial service by the final quarter of 2019.

Witton says that the An-225 would normally operate one or two flights per month and that last year was "quite intensive" as the aircraft maintained an airbridge between Chile and Bolivia to transport power plant equipment.

AN OVERSIZE CHALLENGE

One of the challenges in operating the An-225 is that its size limits the number of potential diversion airports that can handle the giant aircraft if the original destination hub becomes unavailable during a transpacific or transatlantic flight.

"You need to be able to divert to another airfield with suitable performance and equipment capabilities, and across the Atlantic those are few and far between. For example, you have the Icelandic airfield in Keflavik but if that is closed then the nearest alternative is going back to Prestwick [Scotland].

"You have to factor that into your fuel component, and those calculations of course affect the payload you can offer."

Antonov Airlines operates five An-124-100s, which can transport up to 120 tonnes, and two upgraded versions, the An-124-100-150M, which can haul 150 tonnes due to increased take-off and landing weights, changes in the operation of the aircraft and more efficient flight deck systems.

Witton says that the plan is to upgrade the five An-124-100s to the higher payload capability over the next three years: "Antonov has been trialling different technologies on different airframes to see what the best component is, and

which is the best supplier to use."

The main markets for the Antonov are the energy, aerospace and military sectors, with the former now split into two distinct verticals: oil and gas to supply the exploration and extraction markets; and the power plant, hydro-electric and wind-energy markets.

Witton makes the point that many developing countries are increasing their use of air conditioning, mobile phone and internet services.

This surge in energy consumption is draining national power grids and the demand on governments to keep the electricity switched on when an outage occurs has resulted in shorter timeframes for transporting replacement parts.

"There is tremendous pressure on our customers and, in turn, on us to ensure that we deliver a replacement as quickly as possible. For example, we had an urgent requirement to fly a 47-tonne rotor from Belgium to Pakistan with just a few days' notice. What drove the business



to being awarded was how quickly the airline could operate a flight."

Adds Witton: "The demand for energy shipments is rising, but more and more we need to deliver within a week or so, and that is what we used to see in the oil and gas sector."

Shippers have responded to the need for speed and, says Witton, are now better informed about the requirements of the An-124 aircraft and the necessary consignment preparation: "You need to make sure that the person you are in contact with understands the fundamentals of the aircraft and the fundamentals of securing cargo in any form of transport, whether it be air, sea or land.

"And if he understands that then it is a lot easier to go into details. The primary objective is to keep both the weight and the cost of that preparation down to a minimum and to expedite the process, so it makes it easier for a fabricator to do the work in the shortest possible time."

For the aerospace sector, and in particular for the satellite industry, building an airfreight component into the supply chain is essential, as it is too for the aircraft manufacturing market.

But turbulent economic times have a longtail effect on airfreight. In an economic lull, shippers planning a long-term contract bid will be reluctant to factor in airfreight as standby logistics if they are running behind schedule, whereas they are more likely to build it in when the global economy is booming.

"We will see that effect some three or four years later when the project comes to fruition. The shipper has to balance the cost of paying the penalty or choosing airfreight, and sometimes the difference between those two costs is not always that great."

Antonov Airlines is a subsidiary of the state-owned Ukrainian aircraft manufacturer, which means that MRO support and technical upgrades are available at home hub Kiev.

Dreamlifts, trading from 2006, is an independent company whose commercial relationship with Antonov includes running a LIS office.

EXPRESS BEGINNINGS

Witton began his aviation career in 1997 with the European airline division of Australian express parcel pioneer TNT, involving the wet leasing of the BAE 146, Lockheed Electra, Boeing 727, DC-8, DC-10 and Airbus A300.

There was an early connection with Antonov, because the BAE 146 freighters were crewed and operated by Air Foyle, which was then the GSA for the airline: "I got to know the guys who were dealing with the entire network and Bruce Bird, who was in charge of Air Foyle's commercial division at the time, offered me the opportunity to join their team."

LEFT: The An-225 at Stuttgart airport in December 2001 OPPOSITE PAGE: A combined capping stack and airfreight skid design under test on an An-124 aircraft

We had an urgent requirement to fly a 47-tonne rotor from Belgium to Pakistan with just a few days' notice Graham Witton, Dreamlifts

Witton moved from Windsor to Luton and then to Stansted when Air Foyle teamed up with HeavyLift Cargo Airlines to market the Antonov fleet.

There was a wealth of freighter chartering and customer relationship experience on offer at HeavyLift, knowledge that Witton soaked up over a decade before Air Foyle and Antonov decided to form a joint venture with Russian freighter carrier and fellow An-124 operator, Volga-Dnepr.

That Russo-Ukrainian venture, called Ruslan International, was to last for ten years but ended in the face of increased regional political tensions between Russia and Ukraine. Witton had already left for personal reasons but was still acting as a consultant for Antonov as well as National Airlines between 2015 and 2016.

Asked what is his favourite freighter, the BAE 146 or the An-124, Witton answers: "It has to be the An-124. It is a bigger beast and with that comes bigger headaches and bigger rewards. But if you talk about my humble beginnings and getting my hands dirty, the blood and tears, I would probably have to say the BAE 146."

Witton saw footage of a BAE 146 he used to operate being cut into bits to demonstrate aircraft recycling processes: "At the very least I would have loved to have a little bit of that airplane in my garden at home. I'm a bit sentimental when it comes to that type of thing."

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ONERSI

Passenger conversions were in high demand at the International Paris Air Show, as Roger Hailey and **Damian Brett report**

he International Paris Air Show in June continued the air cargo fleet expansion with big ticket orders for passenger conversions and production line freighters.

Paris continued the maindeck spending spree set by its UK sister event, the 2018 Farnborough International Airshow.

Given its ravenous appetite for freighters, it was no surprise that global e-tailer Amazon inked a deal with aircraft lessor GE Capital Aviation Services (GECAS) for 15 Boeing 737-800 converted freighters (BCF) that will enter the Amazon Air network by 2021.

In a joint statement with GECAS, Amazon confirmed that the 15 aircraft will be in addition to the five B737-800s already leased from GE-CAS in a deal announced earlier this year.

The aircraft will fly in the US overnight

domestic airspace, linking the 20 air gateways and growing - in the Amazon Air network.

"These new aircraft create additional capacity for Amazon Air, building on the investment in our Prime Free One-Day programme," said Dave Clark, senior vice president of worldwide operations at Amazon. "By 2021, Amazon Air will have a portfolio of 70 aircraft flying in our dedicated air network."

GECAS, which launched the B737-800 passenger-to-freighter (P2F) conversion programme in 2016, delivering the first BCF in 2018, restated that it has plans to convert at least 50 of this popular aircraft type to meet market demand.

Elsewhere at the busy Le Bourget for the B737-800, ASL Aviation Holdings (ASL) and airframer Boeing signed a Memorandum of Understanding (MoU) for 20 B737-800BCFs in an agreement that includes 10 firm orders and 10 purchase rights.

The deal with Dublin-based ASL, now owned by European fund manager STAR Capital Partnership, brings the total number of B737-800 freighter conversions to 120 orders and commitments, from eight customers.

Hugh Flynn, ASL Aviation Holdings chief ex-

ecutive, said: "Having operated two leased B737-800BCFs across our wide European network, we are very pleased with how the flexibility and reliability of these freighters fulfil our operational needs in meeting our customer requirements.

"The aircraft is highly efficient and right-sized for our developing operations on behalf of our express cargo customers who are experiencing growing demand. The B737-800BCF will also give us access to new markets."

Ihssane Mounir, senior vice president of commercial sales and marketing for Boeing, said: "With more operators seeking out the B737-800BCF, we are looking to expand our conversion capacity to support our customers and their growth plans."

Boeing recently inaugurated new conversion lines at Boeing Shanghai Aviation Services (BSAS) and Taikoo (Shandong) Aircraft Engineering Company (STAECO), while looking to

The programme is committed to more than double the B737-800BCF output this year, going from eight conversions in 2018 to 17 in 2019.

Boeing predicts that 2,650 freighters will be delivered between 2018-2037, with more than 60% being P2F conversions.

Other conversion news emerging from the show included aircraft lessor BBAM and an unnamed airline signing letters of intent (LoIs) for A321 converted freighters.

The LoIs were signed with the ST Engineering-Elbe Flugzeugwerke (EFW)-Airbus joint venture (JV).

The BBAM aircraft will be inducted for conversion into a 14-pallet cargo configuration in mid-2020, with re-delivery scheduled for later that year.

Steve Zissis, president and chief executive of BBAM, said: "As the first conversion solution to introduce a containerised lower deck in the segment of narrowbody freighters, the A321P2F has the potential to be the game changer for any hub-and-spoke operation, and to greatly help realise the projected global air cargo growth rate. For this reason, we made the decision to work with EFW to offer this conversion solution to our customers."

Andreas Sperl, chief executive of EFW, added: "We are pleased to welcome BBAM as one of our prestigious P2F customers.

"Given the track record we have in redelivering converted freighters with the support and resources from parent companies, ST Engineering and Airbus, we are confident in meeting BBAM's requirements for this first conversion, and we look forward to engaging them soon in the near future for follow-on conversion projects."

The A321 P2F JV conversion programme was launched in 2015 together with the A320



Global e-tailer Amazon continues to exhibit a huge appetite for freighters

P2F programme. ST Engineering is responsible for the engineering development phase, up to obtaining the Supplemental Type Certificate (STC) approval by the European Aviation Safety Agency and US Federal Aviation Administration.

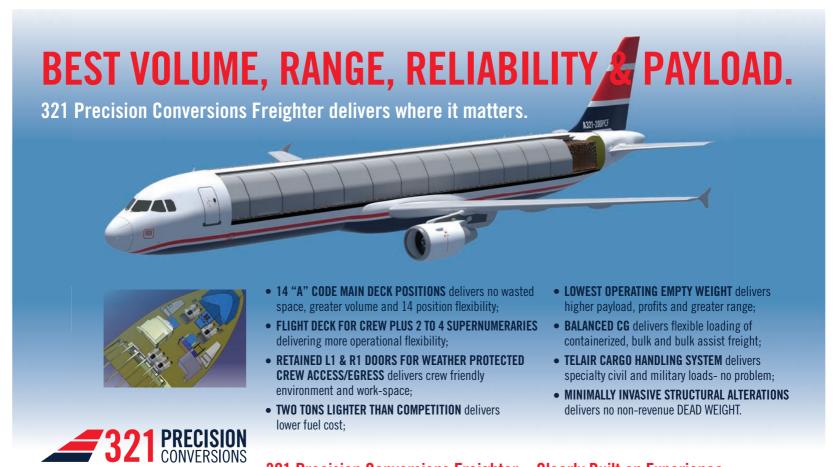
Airbus contributes to the programme with original equipment manufacturer data and certification support, while EFW leads the overall programme as well as marketing and sales.

The programme is the first in its size category to offer containerised loading in both the main deck (up to 14 container positions) and lower deck (up to 10 container positions) with a payload-range capability of 27.9 metric tonnes over 2,300 nautical miles.

The prototype conversion of the A321P2F will be completed by end of this year, while the STC is expected to be obtained in early 2020.

Other P2F solutions marketed by ST Engineering which uses the Airbus platform include the A330 that comes with two variants – the A330-200 and the larger A330-300. ◆

With more operators seeking out the B737-800BCF, we are looking to expand our conversion capacity to support customers *Ihssane Mounir, Boeing*



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5 x R737-400F				Bluebird Cargo (bluebirdcargo.com)
Blue Dart Aviation (bluedartaviation.com) 6 x B757-200F			5 x B737-400F	

	10t-30t	31t-60t	61t-150t
Cairo Aviation (cairoaviation.com)	2 x TU-204-120		
CAL Cargo Air Lines (cal-cargo.com)			1 x B747-400ERF
			1 x B747-400F
			1 x B747-400BCF
Cardig Air (cardigair.com/site)	3 x B737-300F		
Cargo Air (cargoair.bg)	3 x B737-300F		
	6 x B737-400F		
Cargojet (cargojet.com)		12 x B767-300F	
		8 x B757-200F	
C		1 x B767-200F	2 D7.47. 400.F
CargoLogicAir (cargologicair.com)			3 x B747-400F 1 x B747-8F
CargoLogicGermany (clg.aero)	2 x B737-400F		1 X D/4/ ⁻ 0Γ
Cargolux (cargolux.com)	2 x 0/3/-4001		16 x B747-400F
cargorax (cargorax.com)			14 x B747-8F
Cargolux Italia (cargolux-italia.com)			4 x B747-400F
Cathay Pacific (cathaypacificcargo.com)			6 x B747-400ERF
, , , , , , , , , , , , , , , , , , , ,			1 x B747-400BCF
			14 x B747-8F
Cavok Air (cavok.aero)	7 x An-12		
Cebu Pacific (cebupacificaircorporate.com)	2 x ATR-72CF		
China Airlines (cargo.china-airlines.com)			18 x B747-400F
China Air Cargo	1 x MA-600F	2 x B757-200F	
China Cargo Airlines (ckair.com)			3 x B747-400F
			6 x B777-200F
China Postal Airlines (cnpostair.com)	8 x B737-400F	5 x B757-200F	
	13 x B737-300F		
	1 x B737-800BCF		
China Southern Airlines (flychinasouthern.com	1)		12 x B777-200F
Connect Cargo (connect cargo com)	2 x B737-400F		2 x B747-400F
Connect Cargo (connect-cargo.com) Cubana (cubana.cu)	1 x TU-204-100C		
Cygnus Air (cygnusair.com)	1710 204 1000	2 x B757-200PCF	
DHL AIR UK (dhl.co.uk)		26 x B757-200F	
DILET III ON (anicolary		3 x B767-300F	
DHL Aero Expreso (aviationcargo.dhl.com)	1 x B737-400F	4 x B757-200F	
DHL International ME (aviationcargo.dhl.com)		6 x B767-200F	
DOT LT (dot.lt/en)	1 x ATR-42F		
	1 x ATR-42QC		
European Air Transport Leipzig		21 x A300-600F	4 x A330-200F
(aviationcargo.dhl.com)		6 x B757-200F	1 x A330-300F
Egyptair Cargo (egyptair-cargo.com/cargo)		1 x A300-600F	2 x A330-200P2F
Emirates SkyCargo (skycargo.com)			11 x B777-200F
Empire Airlines (empireairlines.com)	11 x ATR-42F		
	7 x ATR-72F		
	7 x ATR-72F 37 x C-208		
	37 x C-208		
Estafeta Carga Aerea (estafeta.com)	37 x C-208 2 x B737-300F 2 x B737-400F 2 x CRJ-100F		
Estafeta Carga Aerea (estafeta.com) Ethiopian Airlines	37 x C-208 2 x B737-300F 2 x B737-400F	2 x B757-200F	6xB777LRF
Estafeta Carga Aerea (estafeta.com) Ethiopian Airlines (cargo.ethiopianairlines.com)	37 x C-208 2 x B737-300F 2 x B737-400F 2 x CRJ-100F	2 x B757-200F	
Estafeta Carga Aerea (estafeta.com) Ethiopian Airlines (cargo.ethiopianairlines.com) Ethad Cargo (etihadcargo.com)	37 x C-208 2 x B737-300F 2 x B737-400F 2 x CRJ-100F	2 x B757-200F	6 x B777-200F
Estafeta Carga Aerea (estafeta.com) Ethiopian Airlines (cargo.ethiopianairlines.com) Ethad Cargo (etihadcargo.com)	37 x C-208 2 x B737-300F 2 x B737-400F 2 x CRJ-100F	2 x B757-200F	6 x B777-200F 1 x B777F
Estafeta Carga Aerea (estafeta.com) Ethiopian Airlines (cargo.ethiopianairlines.com) Ethiad Cargo (etihadcargo.com) EVA Air Cargo (brcargo.com)	37 x C-208 2 x B737-300F 2 x B737-400F 2 x CRJ-100F 1 x B737-800F		6 x B777-200F 1 x B777F 5 x B747-400F
Estafeta Carga Aerea (estafeta.com) Ethiopian Airlines (cargo.ethiopianairlines.com) Ethiad Cargo (etihadcargo.com) EVA Air Cargo (brcargo.com)	37 x C-208 2 x B737-300F 2 x B737-400F 2 x CRJ-100F 1 x B737-800F	69 x B767F	6 x B777-200F 1 x B777F 5 x B747-400F 57 x MD-11F
Estafeta Carga Aerea (estafeta.com) Ethiopian Airlines (cargo.ethiopianairlines.com) Ethiad Cargo (etihadcargo.com) EVA Air Cargo (brcargo.com)	37 x C-208 2 x B737-300F 2 x B737-400F 2 x CRJ-100F 1 x B737-800F 25 x ATR-42C 21 x ATR-72C	69 x B767F 119 x B757-200F	6 x B777-200F 1 x B777F 5 x B747-400F 57 x MD-11F 37 x B777F
Estafeta Carga Aerea (estafeta.com) Ethiopian Airlines (cargo.ethiopianairlines.com) Ethad Cargo (etihadcargo.com) EVA Air Cargo (brcargo.com) FedEx (fedex.com)	37 x C-208 2 x B737-300F 2 x B737-400F 2 x CRJ-100F 1 x B737-800F	69 x B767F	6 x B777-200F 1 x B777F 5 x B747-400F 57 x MD-11F



The world's largest ULD fleet

Always ready where you are

	10t-30t	31t-60t	61t-150t
First Air (firstair.ca)	7 x ATR-42CF		
	3 x B737-400CF		
Global Africa Aviation (globalaa.net)			2 x MD-11F
Hong Kong Air Cargo (hkairlinescargo.com)			5 x A330-200F
Icelandair Cargo (icelandaircargo.net)		2 x B757-200F	
Jordan Int'l Air Cargo (jiac.com.jo)		2 x IL-76MF	
Kalitta Air (kalittaair.com)		6 x B767-300F	22 x B747-400F
M. No. of the American			1 x B777F
Kalitta Charters (kalittacharters.com)	1 x DC9-30F		
	2 x DC9-10F		
	3 x B727-200F		
	2 x B737-300F 4 x B737-400F		
Kenya Airways (kqcargo.com)	2 x B737-300F		
Korean Air (cargo.koreanair.com)	2 X D/3/ 3001		4 x B747-400F
Notedit All (Cargo.Rorealiali.Com)			7 x B747-8F
			12 x B777F
LATAM Cargo (latamcargo.com)		11 x B767-300F	LAUTTI
Lufthansa Cargo (lufthansa-cargo.com)			7 x B777F
			12 x MD-11F
MAC & CSA (airt.net)	8 x C-208		
	9 x ATR-42		
	9 x ATR-72		
Magma Aviation (magma-aviation.com)			2 x B747-400F
MASkargo (maskargo.com)			3 x A330-200F
Maximus Air Cargo (maximus.aero)		2 x IL-76F	1 x An-124-100F
Mistral Air (mistralair.it)	2 x ATR-72-200C		
	3 x B737-400F		
MNG Airlines (mngairlines.com)		7 x A300-600F	1 x A330-200F
Modern Logistics (modern.com.br)	2 x B737-400F		
M 1: A: C	2 x B737-300F		
Mongolian Airways Cargo	1 x B737-300F	0	
Morningstar Air Express (maei.ca) My Indo Airlines (myindoair.com)	8 x C-208 1 x B737-200F	8 x B757-200F	
My Indo Alfillies (Hlyllidodif.com)	2 x B737-300F		
	1 x B737-400F		
National Airlines (nationalaircargo.com)	1 X D/ 3/-4001		2 x B747-400F
Nauru Airlines (nauruairlines.com.au)	1 x B737-300F		2 N D I T T T T O O I
Nippon Cargo Airlines (nca.aero)	17.57.5001		8 x B747-8F
Nolinor Aviation (nolinor.com)	7 x B737-200C		
	4 x CV-440		
Northern Air Cargo (nac.aero)	2 x B737-200F		
	2 x B737-300F		
Pacific Air Cargo (pacificaircargo.com)			1 x B747-400F
Pacific Air Express (pacificairexpress.com.au)		1 x B757-200PCF	
Qantas Freight (qantas.com.au/qfreight)	4 x B737-300SF	1 x B767-300SF	2 x B747-8F
	1 x B737-400SF		
	4 x BaE 146		
Qatar Airways Cargo (qrcargo.com)			16 x B777F
			5 x A330F
			2 x B747-8F
Raya Airways (rayaairways.com)	1 x B737-400F	1 x B757-200F 1 x B767-200F	
Royal Air Maroc (royalairmaroc.com)		1 x B767-300F	
Royal Jordanian (rj-cargo.com)		1 x A310F	
RUS AVIATION (rusaviation.com)		1 x A300B4F 1 x IL-76TD	
		1 X IL-701D	
Safair (safaironerations com)	6 x I 100-30H		
Safair (safairoperations.com)	6 x L100-30H 1 x B737-400C		

Saudia Cargo (saudiacargo.com) SF Airlines (sf-airlines.com) Sichuan Airlines Cargo (cargo.sichuanair.com) Sideral Air Cargo (siderallinhasaereas.com.br/en) Silk Way Airlines (silkway-airlines.com) Silk Way West Airlines (silkwaywest.com) Singapore Airlines Cargo (siacargo.com) Sky Taxi (skytaxi.aero) Solinair (solinair.si) South African Airways Cargo (flysaa.com) SpiceXpress (spicexpress.com) Star Air (starair.dk) Suparna Airlines (yzr.com.cn) 10	4xB737-300F xB737-300F xB737-300F xB737-300QC xB737-300QC xB737-300F xB737-300F xB737-300F xB737-300F xB737-300F xB737-300F xB737-400F xATR-42-300F 1xATR-72	31t-60t 8 x B767-300BCF 28 x B757-200F 2 x IL-76TD-90 3 x IL-76TD 1 x B767-200SF 2 x A300-600F 11 x B767-200SF 1 x 767-300BCF 2 x B767-300F	61t-150t 4xB747-400F 2xB747-8F 4xB777F 1xB747-400ERF 3xA330-200F 5xB747-400F 5xB747-400F 4xB747-400F
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Sichuan Airlines Cargo (cargo.sichuanair.com) Sideral Air Cargo 3) (siderallinhasaereas.com.br/en) 2) Silk Way Airlines (silkway-airlines.com) Silk Way West Airlines (silkwaywest.com) Singapore Airlines Cargo (siacargo.com) Sky Taxi (skytaxi.aero) 1) Solinair (solinair.si) South African Airways Cargo (flysaa.com) 3) SpiceXpress (spicexpress.com) 1) Star Air (starair.dk) Suparna Airlines (yzr.com.cn) 10	x B737-300F x B737-300QC x B737-400F x Saab-340QC x B737-300F x B737-700F 0 x B737-300F x B737-400F x ATR-42-300F	2 x IL-76TD-90 3 x IL-76TD 1 x B767-200SF 2 x A300-600F 11 x B767-200SF 1 x 767-300BCF 2 x B767-300F	5 x B747-400F 5 x B747-8F 7 x B747-400F
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5ilk Way Airlines (silkway-airlines.com) 5ilk Way West Airlines (silkwaywest.com) 5ingapore Airlines Cargo (siacargo.com) 5ky Taxi (skytaxi.aero) 5olinair (solinair.si) 5outh African Airways Cargo (flysaa.com) 5piceXpress (spicexpress.com) 5tar Air (starair.dk) 5uparna Airlines (yzr.com.cn) 10	x Saab-340QC x S737-300F x B737-700F 0 x B737-300F x B737-400F x ATR-42-300F	3 x IL-76TD 1 x B767-200SF 2 x A300-600F 11 x B767-200SF 1 x 767-300BCF 2 x B767-300F	5 x B747-8F 7 x B747-400F
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	x B727-400F x B737-100F		
TransAviaExport (transaviaexport.com)	X D/ 3/~100F		1 x B747-300F
·			1 x MD-10-30F
Transportes Aereos Bolivianos (tab-bolivia.com)		3 x A310-300F	10 x A330-200F
Turkish Cargo (turkishcargo.com.tr)			
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11. I		52 x A300-600F	
Uzbekistan Airways (uzairways.com)		2 x B767-300F	
Volga-Dnepr Airlines (volga-dnepr.com)		5 x IL-76TD-90-VD	12 x An-124-100F
,	0 x BAE ATP-F	3 x B767-200SF	
	x B737-300SF		
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	x CRJ-200PF		
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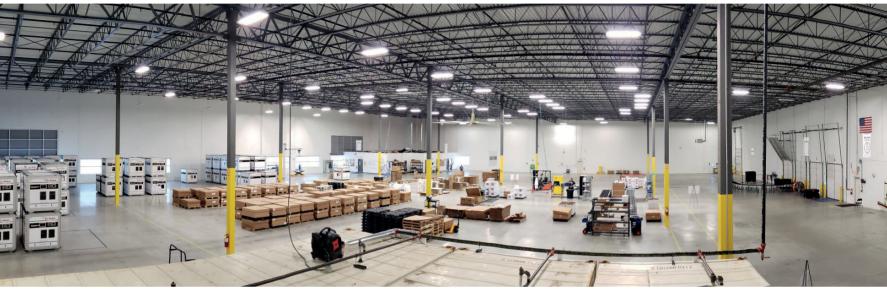
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Keeping cool under pressure



Peli BioThermal containers set for deployment

Tougher regulations, rising customer expectations, cost pressures and new technology are creating profound shifts in the pharma market, writes Chris Lewis

harma has been the rising star of international airfreight over the past few years – but can the growth be expected to continue?

Manufacturers are becoming ever more cost-conscious, and the increasing sophistication of cheaper sea and road transport has certainly enticed some volume away from the airlines.

However, Tom Grubb, senior manager cold chain strategy at American Airlines, claims to have seen no let-up in the carrier's pharma traffic growth. He points out that 2018 was another record year for the sector, despite a slowing in the overall air cargo market.

While other factors in play in global pharma production could conceivably reduce demand for airfreight – greater manufacturing capability in developing countries, for example – Grubb believes there is little evidence that this is yet having any effect.

"I don't think the location of manufacturing has affected airfreight that much," says Grubb. "It is still a fairly scattered activity."

Mass vaccination programmes will continue to generate large amounts of airfreight, not only in the developing world but in Europe and North America too, where the flu jab and other programmes have gained importance in recent years.

Taking a look ahead at potential future developments, it is possible that the industry will develop the equivalent of 3D printing for pharmaceuticals, but it's not an issue the airfreight industry is losing any sleep over.

Julian Sutch, manager global

pharma sales at Emirates SkyCargo, believes that pharma air cargo will continue to grow.

He suggests that regulations around how temperature-sensitive pharma is moved will evolve and become more stringent, not only to protect the integrity of the cargo but also to prevent the counterfeiting of valuable medicines.

Institutions such as the World

Health Organization are pushing for additional regulation and monitoring of pharma cargo transport, while customers are increasingly restricted to carriers that have an internationally recognised certification such as the European Union's Good Distribution Practice (GDP)

And, as Nicola Caristo, secretary general of the Cool Chain



Emirates SkyPharma facility

→ Association (CCA) says, the challenge in moving pharma is "to find an ideal balance between customers' expectations, regulatory and logistic constraints, product packaging and handling specifications, prices and rates".

Sensitive cargo

Sutch expects high-value products with a short shelf life and those that need to be urgently restocked at a destination will continue to travel by air.

However, he adds: "We definitely see a certain amount of temperaturesensitive cargo being shifted to sea, which for a lot of shippers is more cost-effective than airfreight. Yet the growth for pharma airfreight is being driven increasingly by more sophisticated formulations including biologics.

"These shipments by nature of their value, sensitivity and urgency will never be shipped by sea and will continue to travel as airfreight."

Patricia Cole, managing director, same day and lifeconex at DHL Global Forwarding, says that the market share of biopharmaceuticals is increasing globally and will make up nearly 30% of the pharmaceutical market by 2020.

In comparison to traditional drugs produced using chemical synthesis, the manufacturing process for biopharmaceuticals is more complex



Emirates SkyCargo has noticed some modal shift

and costly. They are sensitive to varying temperatures and other environmental factors, as are new gene and regenerative therapies, and require careful handling.

Sutch believes the most significant recent development in pharma airfreight has been the emergence of specialised solutions by the carriers to transport this delicate cargo.

"Emirates SkyCargo has been a pioneer and industry leader in this. We launched our dedicated suite of solutions for pharmaceutical cargo -Emirates Pharma - in 2016.

"In order to support the product we also invested heavily in our infrastructure, opening a dedicated facility at Dubai International Airport. We streamlined our processes and obtained GDP certification for all our handling operations for pharma in Dubai."

The carrier has also opened a 1,000 sq m purpose-built facility in Chicago, dedicated solely to pharmaceuticals in partnership with ground handling company Maestro, with a capacity of 15,000 tonnes a

With a pharma corridors initiative

of over 20 stations across the world, Emirates SkyCargo is confident that it offers a high standard of protection from origin to destination.

American Airlines opened its major hub at Philadelphia ten years ago and Grubb describes business there as "going gangbusters". While there are no plans to develop anything similar elsewhere, the carrier will continue to open or develop its pharma network in other parts of the world.

Developing technology

There have been a number of developments in packaging and container technology for pharmaceuticals.

Emirates was the first carrier in the world to offer the Cool Dolly, which minimises temperature excursions during movements into and out of aircraft holds or to terminals.

Container specialist companies like SkyCell and Va-q-tec have developed hybrid containers with independent

There have also been considerable improvements in passive technology, for example those offered by Softbox or Emball'ISO, and new developments in cover technology.

Emirates launched a range of thermal blankets designed in partnership with DuPont.

Sutch explains: "We launched our White Cover Xtreme range of





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Julian Sutch, Emirates SkyCargo

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DATA & PACKAGING

Finding the missing link

Andreas Seitz (right), general manager, DoKaSch Temperature Solutions, says that stricter regulations, as well as the development of new biotech and temperature-sensitive drugs, are resulting in higher demand for active containers and passive phase change material (PCM) packaging.

"Almost all future pharmaceuticals will be temperature-sensitive, so the demand for either packaging solution will grow, in particular in markets where there is already an existing pharmaceutical production on a lower level, like India, Korea, China and Brazil," says Seitz.

Another trend, he says, is the requirement for data across the pharma supply chain.

"The global air cargo industry will continue to be heavily fragmented, with numerous physical handling and IT stakeholders and interfaces.

"The missing link is the overall



shipment data and availability to everybody involved. IATA's One Record [data sharing] project may help to solve this.

"This will be a key issue for the air cargo industry [as a whole], but for the cool chain in particular with its very strict process compliance requirement.

"There is a lot of 'data sharing' discussion, but when it comes to the point, every stakeholder tries to protect their data.

"The handling of process irregularities and immediate corrective actions to prevent temperature deviations must improve, which also requires data sharing via up-to-date shipment monitoring systems."

→ thermal blanket last year and other market players are also introducing new variants. We've seen TLX launching phase change covers for example."

At DHL, Cole says: "As artificial intelligence and Internet of Things (IoT) technologies continue to expand, there are more opportunities to track and monitor products at every step of their journey.

"Meeting the demand for real-time data requires an IT infrastructure that can collect, analyse and share the data where and when it's needed – from both legacy and modern devices – without the need for replacement infrastructure and all through one single view of the supply chain."

American Airline's Tom Grubb adds that another worthwhile development has been the emergence of Bluetooth technology, which has made monitoring and control systems much more scalable and affordable than before, and has allowed such technology to spread throughout the network.

Cole adds: "What we consistently find is that the most critical requirement for airfreight – and other modes of transport – are the increased demands from pharmaceutical companies to have access to real-time shipment data.

"With more sensitive drugs being shipped, temperature control

achieved through visibility and transparency is vital to control the quality of pharma products."

Raising standards

IATA has created the CEIV Pharma standard to help organisations achieve handling excellence. In addition to this, DHL also qualifies its global network to handle pharma products through its THERMONET certification process.

Cole explains: "We similarly hold airlines to an additional level of quality as preferred pharma carriers that can operate within our THERMONET network."

This creates a more robust and globally consistent pharma product handling process than is possible with ocean or road freight.

With customers piling on the pressure for near real-time data monitoring, this will continue to be a top concern for pharma transportation management.

While it may present up-front cost challenges to carriers, it can also be an opportunity to create process efficiencies, increase customer satisfaction and ensure regulatory compliance, suggests Cole.

To keep costs under control, some pharmaceutical companies are turning to ocean freight, Cole continues, and many are testing the feasibility of refrigerated containers.





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This research includes the concept of air-ocean, combining an ocean leg with air transit.

Cole adds: "Many of our customers have recently approached us to help develop joint risk-management processes.

"These combinations of manufacturer, forwarder, and airline processes include near-product temperature sensor readings, external ambient temperature sensor readings, logistics transportation milestones, shipping performance, lane risk assessments, process deviation analysis, and corrective and preventative action analysis – with the ultimate goal of creating an end-to-end risk-based approach.

"Investing in risk management processes allows for benchmarking to compare performance relative to industry averages by utilising low-risk trade lanes, less costly packaging, and/or lower cost transportation modes.

"We are able to help our customers ensure availability of their pharma products into new markets and regions, which ultimately increases their profitability."

In addition to increased quality management processes due to CEIV certification, other important developments include airline IT systems that allow for Application Programming Interfaces. These enable applications to communicate with one another, connecting airline, forwarder and sometimes packaging companies' IT systems which increases visibility, improves preventative measures and reduces errors.

Airlines now permit the use of active GPS trackers to monitor shipments, ensuring an accurate temperature is kept throughout the



entire transport chain; another notable quality enhancement, says Cole.

These trackers go into 'airplane mode' in the air and start communicating the moment they exit the aircraft.

This allows for both increased visibility into product integrity throughout the journey and access by the pharma company to the

temperature transportation data immediately upon exit of the aircraft at destination, which means faster product release into the intended market.

Packaging remains one of the most crucial aspects of the pharma supply chain. It is the last line of defence which determines how viable, safe and secure the contents inside remain until they reach the end user.

monitored in real-time using IoT devices and Cloud-based software applications.

These acclimatising systems are linked to sensors that share data such as temperature and humidity, or if light is entering the container.

Instantly knowing a container's current state can avoid problems such as a shipment of vaccines left to bake in the sun on the tarmac.

'Meeting the demand for **real- time data** requires an IT
infrastructure that can **collect**, **analyse** and **share** the data
where and when it's needed'

Patricia Cole, DHL Global Forwarding

The primary challenge is to balance the packaging and transportation cost - typically, the more insulated the packaging, the higher the cost.

Intelligent assets are helping pharma companies to ensure the quality of their products in transit by making it easier to maintain unbroken temperature control.

For instance, a growing number of refrigerated packaging systems can be

As the temperature rises, an alert is triggered in the system. The forwarder can then resolve the matter with a call to the ground handler or airline.

Also, some containers may use automated means to maintain the temperature and atmosphere to strict parameters, sending its location and status to the Cloud every few minutes.

Paul Terry, EMEA sales director →

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→ at specialist packaging firm Peli BioThermal, says there has been a move to higher performance systems which allow "for a wider reach from point of origin to point of destination while still maintaining the integrity of the product being shipped.

"This has mainly been achieved by incorporating better materials into packaging such as phase change materials, with specific thermal set points and improved insulation of the packaging system."

At the same time, the new systems have reduced the cost of transport as they are "volumetrically efficient".

Recover and reuse

Increased deployment of reusable packaging systems also reduces per-shipment cost: "As high-performance packaging tends to have more expensive componentry, it makes sense both environmentally and economically to try and recover and reuse those assets time and time again.

"This should reduce the cost of shipping across the globe and also improve the performance of those products being shipped," says Terry.

Peli BioThermal is developing its network of service stations to take the task of recovering and returning units off its clients' shoulders.

For any shippers that do have very specific requirements or are sending

goods to places with extreme temperatures, there is also the option of active containers.

For American Airlines, the proportion of pharma shipped this way has remained fairly constant at around 25% which, incidentally, is an accurate reflection of the overall airfreight industry.

Grubb points out that the proliferation of new and ever more sophisticated passenger packaging options doesn't seem to have affected the active container's share of the market.

Caristo would in fact like to see a dedicated CCA project on passive and active packaging to benchmark the solutions available.

Drug manufacturers in the European Union, US and other parts of the world are producing more in emerging markets, and at the same time are selling into more overseas markets.

Global pharma shipping creates longer supply routes, challenging transport packaging to maintain temperatures for greater lengths of time and through a variety of different scenarios.

At the moment, regulations for pharma logistics are less strict in emerging markets, but changes are taking place.

China, for example, implemented its Good Supply Practices, a few years



Peli BioThermal notes a drive towards reusable packaging

ago, which is a comprehensive set of regulations for transportation.

Grubb adds that newer types of aircraft can offer varying temperature ranges in different parts of the bellyhold. It is usually possible to offer pharma shippers a suitable environment for their cargo without conflicting with the needs of other pharma products, or indeed other types of cargo.

It is possible that over time, manufacturers will become more demanding and ask for narrower temperature ranges, although most of those offered by the airfreight industry are already more precise than regulations require.

Caristo points out that Boeing and Airbus are already part of the IATA Time and Temperature Working Group, which is tasked with developing and maintaining standards for the handling of pharmaceuticals. "CCA will be more than happy to create an open discussion with the main aircraft manufacturers on technical related issues and development opportunities," she says.





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FedEx retains crown as busiest carrier

FedEx tops the IATA World Air Transport Statistics report once again but Qatar is following hot on the heels of Emirates, writes Damian Brett

edEx retained its position as the world's busiest cargo airline last year, but the passenger and freighter fleet of Qatar Airways continued to close in on number two Emirates.

The latest IATA World Air Transport Statistics (WATS) report shows that express operator FedEx was again the busiest cargo airline in the world in 2018, with volumes improving by 3.8% year on year to 17.5bn freight tonne kms (FTK).

It is likely to retain the top spot for the foreseeable future as it is in the process of upgrading its fleet.

Last year, FedEx ordered an additional 12 Boeing 777 freighters and 12 B767Fs.

As of May 31, its fleet stood at 681

aircraft compared with 670 a year earlier and 657 in 2017.

Not including express airlines, Emirates came top of the pile despite demand being flat at just over 12.7bn

In light of the weakening market conditions, the airline has shown its resolve in fleet discipline by downsizing from 15 to 11 dry lease freighters over the past two years.

Nabil Sultan, divisional senior vice president at Emirates SkyCargo, recently told Air Cargo News that "every year has its own challenges", with 2018 blighted by higher fuel prices as well as the impact of the dollar currency exchange in Europe, China and the Indian sub-continent customer



FedEx is the world's busiest cargo airline

The airline's freighter fleet currently comprises 11 B777Fs, all leased from Dubai Aerospace Enterprise. Emirates also operates 255 passenger aircraft.

According to its own figures -IATA statistics do not include charter operations - the carrier recorded a total increase in cargo tonnage of 1.4% last year across the bellyholds of its passenger fleet and its freighters.

That increase, said Sultan, has a lot to do with Emirates' product portfolio diversification over the past three to four years.

One immediate result of that was a 14% surge in pharma goods to 75,000 tonnes, a welcome increase at a time of economic uncertainty.

Sultan said that the carrier will remain flexible: "So far, utilisation has been good and we continue to operate decent load factors.

"However, looking at the economy, over the coming year we might have to re-evaluate what will happen to production. If we have to reduce some of the capacity, then we will

"It is important to know that we are fully utilising the freighters, and as the operator of a large freighter network, we are always monitoring the trade situation very closely."

definitely do that.

Ambitious growth

Qatar Airways, meanwhile, continued to close in on Emirates as it expanded its fleet and network. It recorded the second-highest growth rate on the chart, seeing cargo traffic increase by 15.4% to just under 12.7bn FTK.

The increased volumes helped the airline leapfrog UPS into third place on the list.

Qatar has stated its ambition to become the world's largest cargo carrier and there has been no let-up in its pursuit of this goal in 2019, despite the market slowdown.

In June this year, the airline confirmed that it would increase its B777F capacity by 20% when it

Rank	+/-	ARRIERS 2018 – SCHEDUL	2018	Y-o-Y %	2017	Y-o-Y %	2016	Y-o-Y %	2015	Y-o-Y %	2014
1	0	Federal Express	17,499	3.8	16,851	7.2	15,712	-0.6	15,799	-1.4	16,020
2	0	Emirates	12,713	-0.0	12,715	3.6	12,270	0.9	12,157	8.2	11,240
3	+1	Qatar Airways	12,695	15.4	10,999	19.3	9,221	20.4	7,660	27.7	5,997
4	-1	United Parcel Service	12,459	4.3	11,940	6.0	11,264	4.2	10,807	-1.2	10,936
5	0	Cathay Pacific Airways	11,284	5.2	10,722	7.8	9,947	0.1	9,935	5.0	9,464
6	0	Korean Air	7,839	-2.2	8,015	4.5	7,666	-1.2	7,761	-3.9	8,079
7	+1	Lufthansa ¹	7,394	1.0	7,322	6.4	6,878	9.0	6,309	9.7	5,753
8	-1	Cargolux	7,322	0.1	7,317	-0.9	7,384	7.2	6,888	-2.4	7,054
9	0	Air China	7,051	5.2	6,701	10.0	6,089	6.5	5,718	16.5	4,910
10	+1	China Southern Airlines ¹	6,597	6.9	6,174	4.0	5,939	10.9	5,355	13.1	4,736
11	-1	Singapore Airlines	6,491	-1.5	6,592	3.9	6,345	4.3	6,083	1.1	6,019
12	+3	Turkish Airlines ¹	5,890	24.6	4,728	29.9	3,640	n/a	n/a	n/a	2,580
13	-1	China Airlines	5,804	1.1	5,741	8.9	5,273	-1.3	5,343	1.5	5,266
14	-1	AirBridgeCargo Airlines	5,511	-0.6	5,543	12.8	4,914	20.8	4,069	25.3	3,248
15	-1	All Nippon Airways ¹	4,587	-4.6	4,810	11.5	4,315	12.4	3,840	-0.2	3,847
16	0	Atlas Air	4,553	0.8	4,515	n/a	n/a	n/a	n/a	n/a	n/a
17	+3	United Airlines	4,455	4.8	4,249	20.2	3,534	10.2	3,206	4.3	3,073
18	0	British Airways ¹	4,276	-2.0	4,364	6.0	4,117	1.5	4,055	-6.3	4,329
19	+2	Asiana Airlines	4,067	1.5	4,008	5.1	3,813	6.1	3,595	-2.7	3,693
20	-3	Polar Air Cargo	4,038	-7.8	4,378	4.0	4,211	0.6	4,186	32.8	3,153
21	+1	American Airlines	3,817	4.6	3,648	n/a	n/a	n/a	3,045	15.0	2,647
22	+1	Air France ¹	3,673	1.7	3,612	5.6	3,419	0.1	3,416	-10.7	3,826
23	+2	KLM ¹	3,604	0.0	3,603	1.1	3,564	-0.1	3,567	-0.7	3,592
24	0	EVA Air	3,580	-0.8	3,609	3.7	3,480	-7.4	3,757	-6.2	4,007
25	-6	Etihad Airways	3,471	-19.3	4,303	4.0	4,481	1.8	4,400	5.8	4,159
Annual To	op 25 Total		170,670	2.5	166,459	7.2	155,315	4.1	149,146	4.8	142,279

ce: IATA 2019 World Air Transport Statistics I. Includes figures from certain partner airline



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TOP 25 CARRIERS 2018 – SCHEDULED TONNES (000)										
Rank	Airline	2018	Y-o-Y %	2017	Y-o-Y %	2016	Y-o-Y %	2015	Y-o-Y %	2014
1	FedEx	7,565	2.9	7,355	2.9	7,145	0.8	7,087	-0.6	7,127
2	United Parcel Service	4,755	-3.2	4,912	4.9	4,681	4.4	4,482	5.7	4,240
3	Emirates	2,609	-1.4	2,646	4.2	2,538	3.4	2,454	7.3	2,288
4	Qatar Airways	2,262	11.0	2,038	15.5	1,764	20.3	1,466	26.6	1,158
5	Cathay Pacific Airways	1,828	4.8	1,744	9.2	1,597	0.6	1,588	4.0	1,498
6	Korean Air	1,574	-3.1	1,624	7.3	1,514	-1.2	1,533	0.9	1,519
7	China Airlines	1,512	3.4	1,462	10.3	1,326	1.5	1,306	0.8	1,296
8	Air China	1,448	1.3	1,430	7.4	1,331	6.0	1,256	7.3	1,171
9	China Southern Airlines ¹	1,383	3.7	1,334	-12.2	1,519	9.4	1,389	4.2	1,333
10	Turkish Airlines ¹	1,369	26.2	1,085	24	875	38.0	634	0.6	630
11	All Nippon Airways ¹	1,258	-7.7	1,363	7.9	1,263	8.4	1,165	-3.4	1,206
12	Singapore Airlines	1,167	-0.2	1,169	2.6	1,139	5.1	1,084	0.6	1,078
13	Atlas Air	1,115	-5.4	1,179	n/a	n/a	n/a	n/a	n/a	n/a
14	Lufthansa ¹	977	-1.9	996	4	958	0.8	950	-2.5	974
15	Asiana Airlines	969	0.8	961	4.2	922	7.7	856	-1.4	868
16	Cargolux	850	-1.6	864	6.8	809	6.9	757	4.0	728
17	LATAM group ¹	831	6.5	780	-2.4	799	20.3	664	-13.8	770
18	Kalitta Air ^{1,2}	828	10.8	747	n/a	n/a	n/a	n/a	n/a	n/a
19	Polar Air Cargo	826	-14.2	963	3.7	703	2.6	685	33.5	513
20	Japan Airlines	754	3.3	730	10.6	660	0.2	659	5.4	625
21	China Eastern Airlines	730	3.7	704	-41.2	1,197	-4.6	1,255	8.5	1,157
22	AirBridgeCargo Airlines	724	3.3	701	12.9	621	1.0	615	19.0	517
23	Etihad Airways	719	-19.3	891	4.1	929	2.8	904	5.9	854
24	Thai Airways International	669	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
25	EVA Air	648	0.9	642	5.2	610	-2.2	624	-8.8	684
Annual To	pp 25 Total	39,370	1.1	38,946	5.5	36,941	5.4	35,059	3.0	34,019

→ formalised an order for five of the aircraft.

1. Includes figures from certain partner airlines 2. US DOT Figures

Last year, Qatar received two new B777Fs and it added a further one to its fleet earlier this year. Five more, which were ordered at the 2018 Farnborough International Airshow, are due to arrive in the coming six months. In the other direction, the carrier has returned three Airbus A330Fs that it had on lease.

"This latest order will enable Qatar Airways Cargo to grow to become the number one global cargo carrier this year in both fleet and network," Qatar Airways Group chief executive Akbar Al Baker said at the signing ceremony.

Qatar Airways chief officer cargo, Guillaume Halleux said: "We are very excited about these announcements. The addition of the five B777Fs will be beneficial for our customers' business, as we can offer them greater capacity and increased frequencies on high demand routes."

Qatar Airways currently operates 23 freighters: 16 B777Fs, five A330Fs and two B747-8Fs. Its passenger fleet stands at 200 aircraft.

In terms of freighter network, Macau was added last year, while 2019 has seen the introduction of Almaty and Guadalajara. Three further routes are to be added: Hanoi – Dallas, Chicago – Singapore and Singapore – Los Angeles – Mexico

Another notable performance came from Turkish Airlines Cargo, which, like Qatar, is in the process of expanding its cargo fleet and network.

The Istanbul-hubbed airline in 2018 recorded an increase in freight traffic of 24.6% year on year.

The carrier said the growth comes on the back of several service launches last year, with new lines to 13 locations: Zaragoza, Spain; Vilnius, Lithuania; Liege, Belgium; Miami, US; Toronto, Canada; Houston, US; Bogota, Colombia; Mexico City, Mexico; Curaçao, Netherlands Antilles; Ho Chi Minh City, Vietnam; Taipei, Taiwan; Navoi, Uzbekistan; and Muscat, Oman.

Turkish Airlines is also in the process of expanding its cargo fleet. In November 2018 the airline ordered three B777Fs, in addition to the three it had already confirmed at the start of that year.

The airline took delivery of two B777Fs at the end of 2017, which would have boosted performance last year.

Turkish Cargo is also benefitting from the opening of Istanbul Airport, with its swanky new cargo facilities.

So far, the carrier has moved only its passenger flights from Ataturk to

the new facility, but its freighter flights will soon follow.

A dedicated trucking operation runs between the two airports, ferrying cargo between the two different aircraft types.

The increase in cargo traffic recorded at Turkish Airlines also meant it was the carrier to climb the most places on the chart, as it moved up three spots to number 12.

The airline's freighter fleet currently stands at three A310-300Fs, one A300-600F, 10 A330-200Fs, five B777Fs and four B747-400Fs.

The third-fastest grower was China Southern, which improved by 6.9% to 6.5bn FTK.

The airline has been expanding rapidly over recent years and its capacity – in available freight tonne kms (AFTK) – was up 10.3% last year, according to its own monthly traffic statistics.

Strategy re-adjustment

In the opposite direction, Etihad Cargo dropped six places on the list to number 25, as cargo traffic declined by 19.3% year on year to 3.5bn FTK.

The company told *Air Cargo News* that it has been busy re-adjusting its network strategy over recent years.

Managing director cargo and logistics Abdulla Mohamed Shadid explained that in the light of changing market conditions, it was evident that the airline had concentrated too much on creating a global footprint. It is now focusing its efforts on developing other key areas of the business such as technology, which customers are demanding to improve business processes.

Etihad exited its A330F fleet last year and now operates B777Fs. They are flying mainly to core markets like Europe and Asia (eg India, Vietnam and China), complementing the bellyhold capacity that feeds more than 90 destinations including North America, Africa and Australia.

With reduced capacity effectively helping Etihad eliminate "bad revenue", the smaller footprint has allowed the airline to refocus and fine-tune the network, enabling it to open up Singapore as a new route and increase Shanghai frequencies.

According to its website, the carrier operates six B777Fs, as well as a passenger fleet of 102 aircraft.

Overall, the top 25 cargo airlines



Cargo demand was flat at Emirates last year



Qatar Airways Cargo ordered five B777Fs at the Paris Air Show



Turkish Airlines became the world's twelfth busiest cargo carrier in 2018

saw traffic increase to 171bn scheduled FTKs, a rise of 2.5% on a year earlier.

That figure perhaps comes as a surprise, given that IATA estimates that overall air cargo traffic increased by 3.4% last year.

However, the WATS report does not include charter volumes and the industry has benefited from an increased demand for this type of service over the past couple of years.

This seems to be reflected in the performance of some of the top 25 carriers that offer charter capacity.

Capacity, meanwhile, increased by 5.2% and as a result, there was a 0.8% slip in the freight load factor to 49.3%.

All-cargo operations grew at a rate of 3.6% in 2018 while airlines with mixed operations increased by 3.2%.

International traffic improved by 3.4%, but there was a higher increase of 3.8% in domestic traffic.

IATA said that the year started strongly but grew weaker in the second half.

"Following a year of very strong

growth in 2017, where industry-wide FTKs increased by 9.7% buoyed by the global inventory restocking cycle, 2018 delivered a considerably weaker performance for airfreight," said IATA.

"FTKs increased by 3.4% last year overall, growing in line with global trade volumes despite trending broadly sideways in the first part of the year and actually contracting in [the fourth quarter].

"This partly reflected the typical slowdown that follows an inventory rebuild. However, the second half of the year also saw the industry facing a number of headwinds including a moderation in world trade – in part a result of the heightened trade tensions between the US and China – and deterioration in some of the key leading indicators, such as the new export orders component of the global Purchasing Managers Index.

"Having said that, not all airfreight sectors were equally affected with e-commerce and pharmaceuticals continuing to perform very strongly."

Looking ahead, IATA is predicting

'IATA continues to be optimistic that airfreight can outperform world trade over the forecast period'

that cargo will grow with a compound annual growth rate of 4.4% between 2018 and 2023.

This is down from the 4.9% forecast the association made in its previous report.

Optimistic outlook

"IATA continues to be optimistic that airfreight can outperform world trade over the forecast period, as strong growth in market segments such as pharmaceuticals and e-commerce is expected to continue," it said.

The report also details the top freight country pairs. As expected,

China to the US proved to be the busiest route with volumes of 642,145 tonnes – up 5.1% on a year ago.

China was also the largest airfreight origin with volumes increasing by 2.3% to 3.2m tonnes.

In second place was the US with volumes increasing by 1.8% to 3.1m tonnes. The country's largest destination was China with 286,017 tonnes – up by 13.1% compared with 2017 levels.

Hong Kong was third in the list of origins with a decrease of 3.3% to 2.5m tonnes. Its largest destination was the US with volumes decreasing 12.3% to 392,219 tonnes.



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DATA HUB

AIRLINE DEMAND

Airfreight traffic falls for eighth month in a row

Air cargo traffic has now declined year on year for eight months in a row and signs of a recovery in recent months have turned out to be premature.

The latest figures from airline association IATA show that demand in terms of freight tonne kms (FTK) declined by 4.8% year on year in June, leaving performance in the first six months down 3.6% on 2018 levels.

Capacity during the month, in available FTK terms, was up 2.6% and as a result the freight load factor slumped to 45.4% compared with 48.9% in June 2018.

IATA said that signs of a modest recovery in recent months appear to have been

'Global trade continues to suffer as tensions deepen. As a result, air cargo markets continue to contract'

Alexandre de Juniac, IATA

premature, with the June contraction being evident across all regions with the exception of Africa.

Globally, trade growth is languishing, and business uncertainty is being compounded by the latest tariff increases in the US-China trade dispute, IATA said.

IATA director general and chief executive Alexandre de Juniac said: "Global trade continues to suffer as tensions, particularly between the US and China, deepen. As a result, air cargo markets continue to contract.

"Nobody wins a trade war," continued de Juniac. "Borders that are open to trade spread sustained prosperity. That's what our political leaders must focus on."

The IATA figures reflect those presented by analyst WorldACD, which show a decline in airfreight volumes of 8.9% in June this year compared with the same month in 2018.

"Only high tech (+3.7%), pharmaceuticals (+5.3%), flowers (+4.6%) and fish/seafood (+4.5%) resisted the onslaught, but the first two of these categories paid a price for their volume growth in the form of yields falling more than volume increased," the analyst said.

Looking at regional performance, IATA figures show that Asia Pacific airlines saw demand for airfreight contract by 5.4% in June.

"Although an important factor, the US-China trade war is not solely responsible for the fall," IATA said. "FTKs for the 'within-Asia market' have decreased more than 10% over the past year."

North American airlines saw demand decrease by 4.6% compared with the same period a year earlier while capacity increased by 1.9%.

IATA said that US-China trade tensions were weighing on the performance, with FTKs to Asia down 5%. FTKs on routes to and from Europe,

South America and the Middle East were also lower, it reported.

Airlines based in Europe posted a 3.6% year-on-year decrease in freight demand in June as comparatively strong cargo volumes within the region helped minimise the impact of weaker German exports.

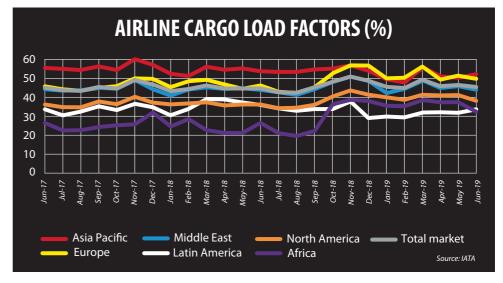
There was a 7% decline in Middle Eastern airlines' freight volumes in June and capacity increased by 2.7%. "Volumes to Europe (-7.2%) and Asia Pacific (-6.5%) were particularly weak," IATA said.

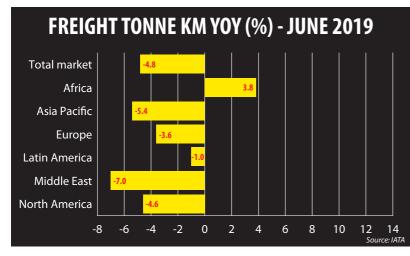
Latin American airlines experienced a decrease in freight demand in June of 1% compared with the same period last year while capacity increased by 4.6%.

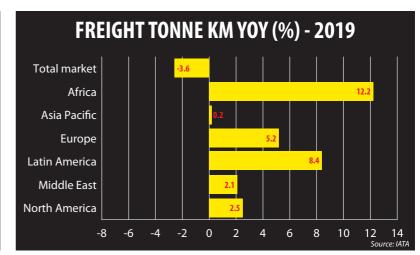
IATA said that much of the decline in traffic could be attributed to weakness being felt in the 'within-South-America market', especially Brazil and Argentina, where FTKs fell 6.5%.

Finally, African carriers managed to report growth in June with an increase in demand of 3.8% year on year but capacity was up by more than 16%.

"This makes Africa the strongest performer for the fourth consecutive month. Route analysis shows that the Africa-Asia performance is strong – up 12% year-on-year," IATA said.







AIRFREIGHT RATES

Cargo rates continue to struggle as summer slowdown takes hold

Airfreight rates flatlined in July as the air cargo industry slowed down for the summer.

Figures from Tac Index show that average rates on the transpacific, Asia-Europe and transatlantic trade lanes in July were all fairly flat compared with June.

However, prices continue to lag behind last year.

On services from Hong Kong to North America, average rates slipped to \$3.44 per kg in July from \$3.46 per kg in June, although this is in line with expectations for the period. However, rates are 11.3% down on a year ago as a general trade slowdown and the US-China trade dispute take their toll.

Prices on the trade route are still above 2017 levels and the year-on-year decline is partially a reflection of the strength of the market in 2018, it should be noted.

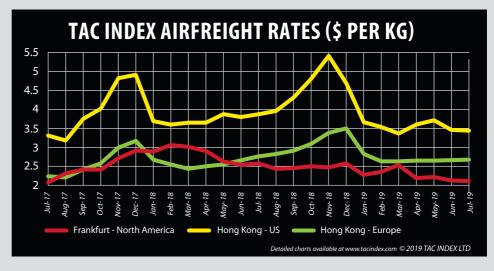
It is a similar story on services from Hong Kong to Europe, with prices at an average of \$2.67 per kg in July compared with \$2.66 per kg in June. Again, this reflects a slowdown over the summer.

Rates for July are 3.3% down on July 2018 – only the second time this year there has not been an increase on a year ago – but still up on 2017.

Meanwhile, average rates on services between Frankfurt and North America stood at \$2.11 per kg in July compared with \$2.24 per kg in June, leaving prices down 17.9% on July last year.

Derivatives broker Freight

Investor Services does not expect an immediate pick up. Its forward curve for China-Europe remains flat in August and September before picking up for the peak fourth quarter. Rates on the China-US trade show a similar pattern.



AIRPORT THROUGHPUT

Europe's airports in fresh setback

European airports registered the largest percentage decline in cargo traffic of the past seven years in June.

Figures from Airports Council International (ACI) Europe show that cargo traffic at European hubs declined by 7.1% in June, while over the first six months of the year there was a 3.5% decline.

Both European Union (EU) and non-EU markets suffered from this first-half decline, with airports in the EU market registering a 3.7% fall in throughput and non-EU

airports slipping by 1.9%.

Amongst the top 10 European airports for freight traffic, only two posted positive results in the first half: Liège, which was up 6.5%, and Istanbul, up 0.4%.

ACI Europe director general Olivier Jankovec said: "The slump in freight traffic is where it really bites at the moment and it is not getting any better, with June registering a drop of 7.1% – the worst monthly performance in more than seven years.

"This does not bode well for

the months ahead, especially as passenger traffic usually does not remain totally isolated from trends in freight traffic."

Looking at individual airport performance in the first half, the largest cargo hub in Europe, Frankfurt, saw cargo demand decrease by 2.5% year on year to just over 1m tonnes; at Paris CDG, meanwhile, there was a drop of 1.9% to 946,129 tonnes; and Heathrow was down 4.2% to 805.953 tonnes.

The second quarter was

particularly tough for the airports, as cargo demand was down 3.6% at Frankfurt, 3.2% at Paris CDG and 6.3% at Heathrow.

Hong Kong International Airport (HKIA) – the world's largest airfreight hub – also had a tough first half of the year, with cargo volumes declining by 6.7% year on year to 2.3m tonnes.

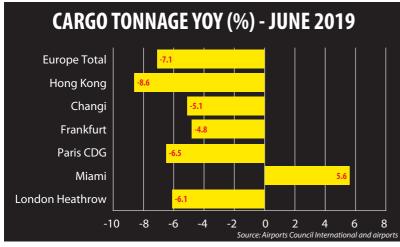
Weak demand in all three cargo categories – imports, exports and transhipments – was observed during the period amid the uncertain

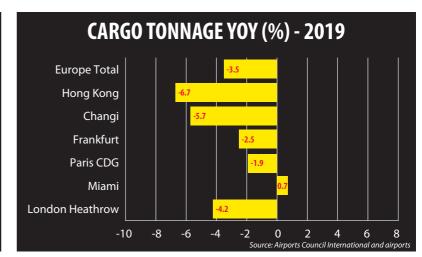
global economic situation, which continues to weigh on sentiment and trading activity.

In June, cargo throughput at the Hong Kong hub was down 8.6% to 387,000 tonnes.

"The decrease in throughput in June was attributed to weaker performance in transhipments and imports, which dropped by 13% and 11%, respectively," HKIA said.

"Amongst the key trading regions, cargo throughput to Southeast Asia and Europe decreased most significantly."





aircargonews September 2019

CONTAINER SHIPPING

Space squeeze worsens

container shipping market is expected to be hit by increasing space shortages over the coming months as box lines continue to axe sailings on the Asia to Europe trade.

In a customer circular issued recently, freight forwarder Westbound Logistics Services warned that it expected severe space pressure to occur during the third-quarter peak season.

"Batten down the hatches, it's going to get rough," the company advised in the circular. "During August we have seen shipping lines issue notices stating that every single vessel is overbooked with 100% chance of container rollings.

"The Alliance group of liners have also confirmed blank sailings on top of this, adding to the market strain as

It added: "There are now containers being rolled every single week, and in some cases, two to three times again at transhipment ports, adding up to three weeks' delay - almost double the transit time in some cases.

"The situation is set to get worse, and there is not likely to be anyone that will come out of the peak season unscathed, unfortunately," it contin-

In an August market update, Flexport said it had also noticed a tightening of capacity on the trade.

"Space is tight and there have been rollovers in main ports. A large number of blank (cancelled) sailings are reducing capacity in excess of 10% for the weeks ahead."

The forwarder said that space had also been tight on services from Europe to the US and India to the US, as well as from the US to Asia and

France-based shipping line CMA CGM said that it had cancelled some sailings on the Asia-Europe trade because of fluctuations between supply and demand.

Lars Jensen from consultant SeaIntelligence said that demand was the reason carriers were reducing capacity on the trade lane.

"With the widespread weakness in demand growth, carriers are out of options in terms of managing capacity through cascading [moving vessels from one trade to another]," said Jensen.

"And as new vessels continue to be delivered, shippers need to prepare themselves for the only effective tool left in the carriers' toolbox: more blank sailings and service rationalisations," he continued.

It isn't all bad news for freight forwarders and shippers that are reliant on container shipping services, however.

While the number of cancelled sailings is on the rise, the reliability of those that do set sail is actually on the

Based on SeaIntelligence figures

running up to the start of August, 84% of vessels worldwide are now on time - which is defined as being within 24 hours of their scheduled arrival.

This is a sharp 10 percentage point increase since December, and a performance only bettered in 2016.

"However, the data also shows that for the vessels which are delayed, the magnitude of the delay is worse than at any other year at this point in the vear," Jensen said.

"Compared with the performance in 2016, vessels that are delayed now arrive a full day later than they did in

"Hence, we are seeing a bifurcation in performance. On one hand, more and more vessels arrive in a timely fashion.

"On the other hand, once delays occur, these are of an ever larger magnitude - and hence are likely to be more disruptive to the supply

8th Caspian Air Cargo Summit 2019



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- CIS Air Cargo Market Update
- E-Commerce What's Next?
- Latest Trends in Perishables Logistics
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For more information and registration online: www.caspianaircargosummit.com

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PEOPLE

Crane selects new CEO

Keith Winters Crane Worldwide Logistics recently named Keith Winters as its new chief executive. He has replaced John Magee, who served as chief executive for 11 years. Winters has



as chief operating officer for Crane Worldwide and, most recently, as chief executive of Davaco, Inc, a firm affiliated with Crane Capital Group, Inc.

Conlin replaces Mao at Cathay Pacific Cargo Iames Conlin



James Conlin has taken over from Jeanette Mao as head of cargo, global partnerships, at Cathay Pacific. Conlin has worked for Cathay Pacific for five years, including stints as country

manager for Bangladesh and then for South Korea. Mao is moving to a new post in the airline's passenger business.

New Silk Way West Airlines VP AP

Silk Way West Airlines has appointed Jenny Zhao as its new vice president, Asia Pacific

Zhao has more than 15 years' experience in the air cargo industry, having previously held senior management positions at various cargo airlines. For the past two years, she worked in the role of



chief operating officer, Asia Pacific region, at Silk Way West Airlines, as well as head of the company's rep office in Shanghai.



Gulf Air's new senior manager cargo Wael Mattar

Gulf Air has named Wael Mattar as senior manager cargo, based at its hub in Bahrain. Mattar, who previously managed

the air carrier's stations in the $\dot{\rm G}{\rm ulf}$ Cooperation Council and Egypt, expressed confidence that Gulf Air "has an opportunity to grow its cargo sales and

QUOTE OF THE ISSUE

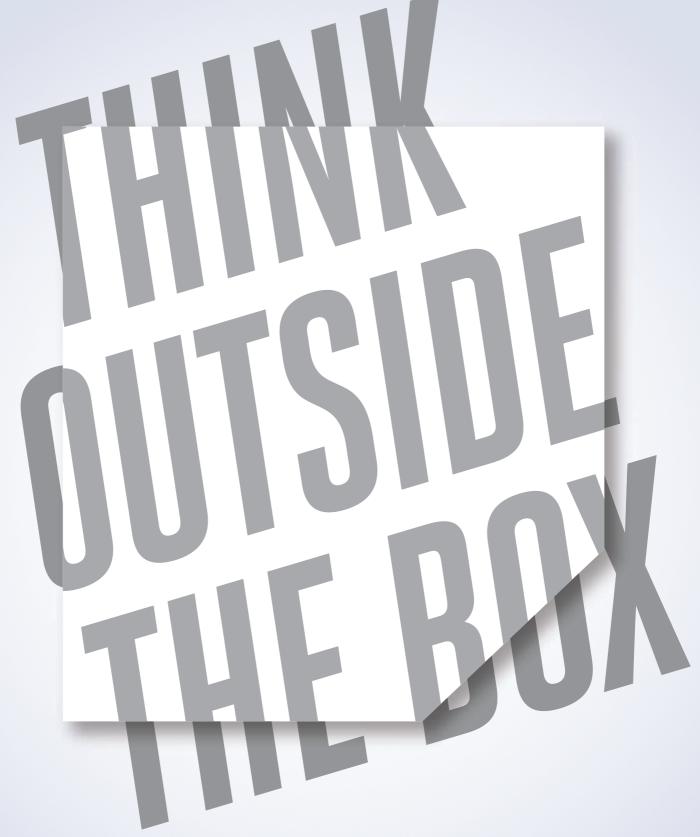
'Unfortunately our industry is very cyclical and volatile, and there is so much uncertainty regarding trade flows'

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