



THE LOADSTAR

# LongRead

## LongRead Vol 7

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# Belly and freighter networks

**The brutal economics of operating freighters in a challenging market with relentless pressure on yields are prompting all-cargo operators to countenance link-ups with passenger carriers. At the same time, belly carriers are sensing opportunities to expand their reach and raise their load factors. ACMI arrangements offer the easiest way forward, but do they go far enough?**

All-cargo carrier Cargolux, once a model of efficiency and solid results, is undergoing a fundamental review of its business strategy in an effort to stem the downward pressure on profitability.

### **Marriage with a passenger airline**

Cargolux CEO Richard Forson reveals that one option getting more than a fair bit of scrutiny is a potential alignment with one or more belly carriers. Essentially, this would make

capacity available to such a partner under an ACMI arrangement. This would help Cargolux shift the balance of costs more to the variable side, which is a fundamental plank in its strategy for survival. Tests in that direction have already commenced with one potential partner.

The headwinds of recent years have made it challenging to produce black figures with freighters, as the cull of cargo aircraft at combination carriers shows.

Carriers like Air France KLM, Lufthansa, Singapore Airlines or EVA Air have scaled back their all-cargo fleets, while Northwest and Japan Airlines got rid of theirs altogether.

According to most observers, pure freighter airlines have been buffeted the most.

“Freighter operators have been forced into a corner. It has been difficult to make money with freighters,” observes Ram Menen, former head of cargo of Emirates.

There have been casualties. “The field of widebody freighter providers has shrunk quite a bit,” notes Tom Crabtree, regional director, airline market analysis at Boeing Commercial Airplanes.

Their plight is likely going to get worse, according to Airbus. The plane maker projects that the share of freighters of global air cargo traffic (in FTKs) will slide from 2015’s 48% to 38% in 2035, as more new-generation widebody passenger planes with cavernous bellies come onstream.

“Every combination carrier tells us that they use belly capacity first and freighters on top,” reported Oliver von Tronchin, head of freighter marketing, last year when Airbus tabled its industry forecast for the 2015-2035 period. “Ten, 15 years back, the use of freighters was more independent from belly cargo.”

### **Freighters, an endangered species**

Boeing, perhaps unsurprisingly given the two manufacturers’ product lines, does not share this view. For one thing, much of the new belly capacity is deployed in the wrong markets as far as cargo is concerned.

According to the US plane manufacturer, 66-70% of air cargo moves between industrial sites, but only 30% of the belly capacity on new widebody aircraft introduced in the past five years has served the primary air cargo routes. Most flies to markets where forwarders, who determine gateway selection, are not active, according to Mr Crabtree.

Freighters continue to carry more than half of the global airfreight volume, although they make up only 8% of global air transports, and their share of the market has not declined through the downturn of recent years, he says. “Airlines that operate freighters generate 90% of the air cargo industry’s revenues,” he adds.



**Hubs are by default the points where demand for equipment, as well as volatility, are at the highest level. With freighters the spikes can be more pronounced, but having a large fleet and a host of clients helps**

– Unilode sales director John Jacobs

Boeing’s statistics show that freighters command roughly 80% of the airfreight between Asia and Europe and 70% in the transpacific arena. On the transatlantic sector they account for 40% of the volume.

Over the past 10 years, more than 700 Boeing 777 passenger planes have been put into service, but they have not moved the needle to boost market share in favour of belly capacity, says Michael Steen, executive vice-president and chief commercial officer at Atlas Air Worldwide Holdings. He adds that the situation varies by market, notably on the transatlantic routes, where bellies have a much larger impact than on intercontinental routes to Asia.

He anticipates need for more freighters, pointing to economic fundamentals. Global GDP, which stood at US\$50 trillion in the year 2000, climbed to \$76 trillion in 2015 and is forecast to reach \$131 trillion by 2035, he notes.

Moreover, e-commerce will propel more demand for all-cargo aircraft, he believes. Its more time-sensitive

nature, combined with a tendency to keep inventory low and to accelerate delivery, is very much in favour of freighters, he says.

As global shippers try to figure out what the right logistics model is going forward, they are looking for speed and flexibility, and freighters are more geared to provide this than passenger aircraft, he adds.

“You can definitely do well with a full freighter fleet,” he concludes, pointing to the results of Atlas Air across the segments, from ACMI and CMI to scheduled and charter activities. “The full freighter model is alive.”

Boeing forecasts a need for 2,370 freighters to come on stream between 2016 and 2035, raising the number of jet freighters in service around the globe from 1,770 last year to 3,010. Airbus, which uses different base numbers, sees the global freighter fleet rise from 1,560 freighters last year to 2,110 units by 2035.

Their projections diverge the most in the large freighter bracket, where Airbus anticipates a significant impact from the deployment of new passenger aircraft.

Still, yields for freighter carriers have been painful. Buoyed by a robust fourth quarter – one of the strongest in years, according to Mr Forson – Cargolux reported a 10% increase in FTKs for 2016, but its net profit was down almost 90% from the previous year, while revenues declined 5.4%.

"I agree that the margins are tough on freighter operators. Revenue growth has been flat or decreased and yields are down," he says, but adds that the yield numbers usually do not reflect the drop in fuel cost.

### Feeding bellies

The concept of freighter and belly operators joining hands offers a lot of benefits to address the above and other issues, says Stan Wraight, executive director of Strategic Aviation Solutions International.

"Passenger airlines can't make money with freighters, freighter operators need scale, more city pairs to sell."

Mr Von Tronchin also sees a win-win scenario in such an axis. "The belly cargo carriers can offer a different product, as about 20% of cargo has to go on freighters either for size, security or specific environmental conditions. The all-cargo carrier will benefit from having available space filled that might stay empty otherwise, generating additional revenue and profits," he comments.

While all-cargo operators see better utilisation of their assets in an alignment with passenger carriers, for

the latter this offers a number of benefits. To start with, they can offer their clients the possibility to book maindeck freight with them.

For Air Canada, teaming up with Cargojet has opened the door to outsized pieces like aircraft engines, notes Lise-Marie Turpin, outgoing vice-president of cargo.

In itself, this is arguably a lesser factor, since the freighter-only portion of the air cargo market is relatively small.

A bigger appeal for belly carriers is the feed from freighters into the network to drive up system-wide utilisation.

"The primary goal [of the partnership with Cargojet] is to feed the Air Canada network. We have a large network now," says Ms Turpin.

Mr Menen notes that freighters help balance capacity and flows of a belly network that is, by its nature, not optimised for cargo flows.

"A pure belly carrier cannot optimise yield contribution," says Mr Steen. "Freighters drive belly utilisation of the total network, and they also drive higher yields."

Faced with the tough operating economics of freighters and the fact

that passenger growth has outstripped increases in cargo in recent years, passenger airline boards are understandably reserved about the notion of taking on freighters.

"It's a tough sale to make the case for freighters at airline board level today. Airfreight is a niche business," says Mr Crabtree.

The traditional route out of this dilemma has been leasing cargo aircraft, with ACMI the predominant model, although forms like CMI have gained ground in recent years. For some operators this has worked well, but others balk at the costs, especially if they face a struggle to fill the aircraft.

Using freighter capacity of a commercial cargo airline, which may come at a discounted price because of the improved utilisation of that carrier's equipment, offers an interesting alternative.

### ACMI or more?

All-cargo carriers that have moved in this direction, such as Cargojet and Cargolux, have favoured the ACMI model, which seems the most straightforward way of boosting utilisation of their assets without



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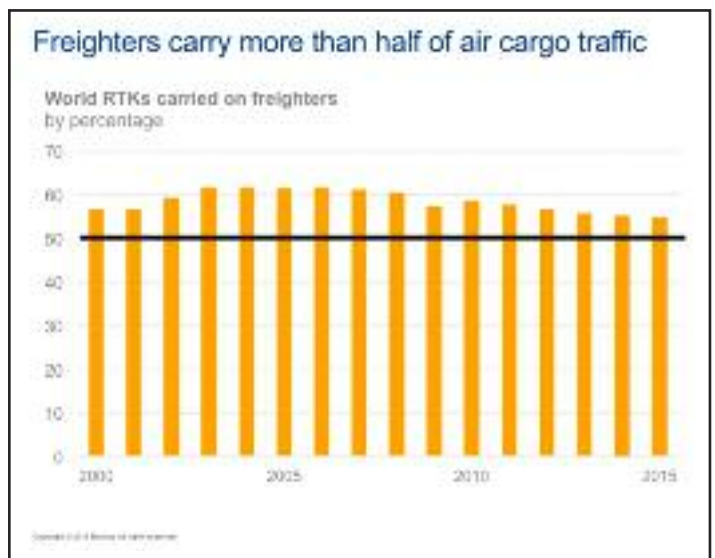
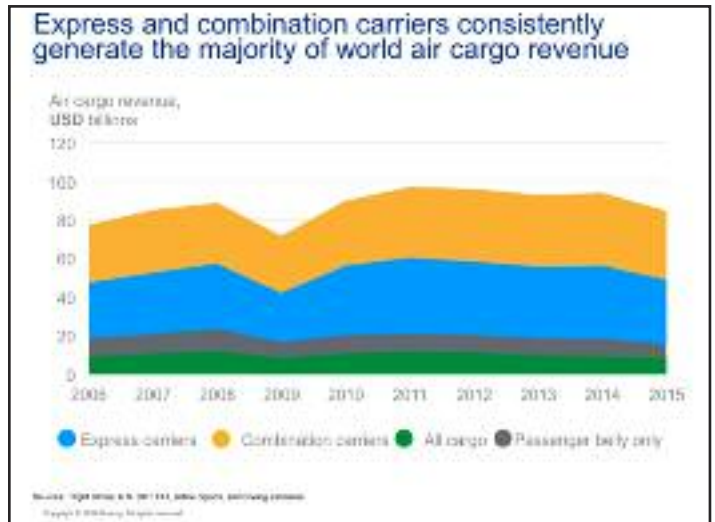
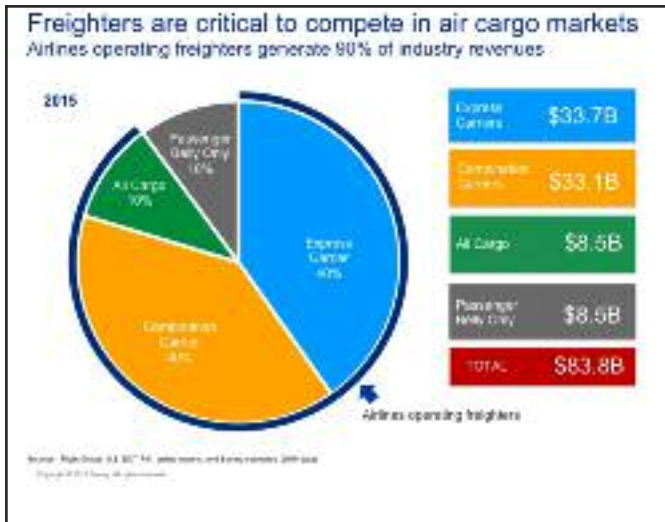
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## Belly & freighter networks: providers unfazed by alignment

The prospect of having to manage a mix of ULDs from a belly and a freighter carrier joining hands does not faze Don Jacobs, director of sales, marketing and account management at Unilode Aviation Solutions. Freighters operators' need for special equipment accounts for only a small percentage of their ULD requirements.

"There is a lot of commonality, a lot of synergies," he says, adding that the ULD management firm commands a large pool of equipment for a diversified customer base that makes it relatively easy to adjust.

Hubs are by default the points where demand for equipment as well as volatility are at the highest level. With freighters the spikes can be more pronounced, but again, having a large fleet and a host of clients helps manage this, Jacobs says.

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Sebastiaan Scholte, CEO of Jan de Rijk Logistics, likes freighters, as they usually translate into bigger loads and more trucking.

"It's easiest to have full pallets, but even on a freighter you don't always have this," he adds.

"Sometimes you have full pallets as well as half pallets or loose cargo. It's not a huge difference for us."

So far he has not seen any consolidation of RFS activities from freighter-belly carrier partnerships. If one carrier uses a flight of a partner and the former employs Jan de Rijk, his outfit will still do the trucking. The customer air waybill determines the RFS provider, he says.



Arguably the biggest impact from a belly-freighter team-up is on ACMI providers. But which alignment works for airlines varies, depending on a range of factors, from business models and commercial relationships to markets and traffic rights.

"It's going to be horses for courses," comments Michael Steen, chief commercial officer of Atlas Air. "I don't think there is one solution. There can be tremendous opportunities for collaboration. It depends on opportunities and business models."

disrupting their core business.

The alignment with Air Canada – in the main weekend B767-300 freighter runs to Mexico, Colombia and Germany – has not impacted Cargojet’s main focus of hauling overnight traffic across Canada for the express and courier industry and Canada Post, says Gord Johnston, senior vice-president of sales.

“When you have capacity and no market, it’s easiest to get an ACMI deal to utilise aircraft that sit on the ground,” says Mr Wraight.

While getting an idle freighter airborne to carry somebody else’s traffic is a marked improvement on the balance sheet for an all-cargo operator, there are issues, observes Mr Menen.

“You need crews all over the place, everywhere the customer wants. Atlas can do that, because it has so many planes, but it’s tough for most freighter airlines,” he says.

He has more fundamental reservations about the ACMI route, though, raising doubts if it addresses the challenges that freighter airlines are facing in his view, the need for an alignment with passenger carriers is driven more by changing dynamics in the market.

“Pure freighter operators are going to struggle,” he suggests. “Unless they fly a high-density route like Hong Kong or Shanghai, they can’t afford to operate a daily flight. But in today’s world, people don’t want to wait for consolidations. Consolidations are dying unless you have daily service,” he reflects.

Teaming up with a belly operator is an avenue to achieve higher frequency to



keep a freighter operator’s network commercially viable by tapping into network of the partner, he argues.

“ACMI will only take care of the assets, not the network. For network they need daily distribution capability. They won’t get the benefit of interacting, of jointly selling capacity. It should be about sharing capacity, sharing the network.”

#### **Smooth alignment**

Aligning schedules is not much of a problem, notes Mr Wraight, especially if the freighter airline involved has a relatively large fleet.

**For Air Canada, teaming up with Cargojet has opened the door to outsized pieces like aircraft engines**

**–Lise-Marie Turpin, outgoing vice-president of cargo**

“It’s not difficult to synchronise freighters and bellies, but you have to have the appropriate network and route structure,” agrees Mr Steen.

“Because of curfews and slot issues most airlines tend to work in similar patterns, so aligning is not a big deal,” says Mr Menen. “Belly-to-belly can be tail-to-tail, but between bellies and freighters you usually have five or six hours, so you have a cushion there.”

Ms Turpin says the schedules of Air Canada and Cargojet match perfectly, as the cargo airline is at full stretch during nights on weekdays, but free to take on freight for the passenger carrier, which is heaviest at weekends. This creates a win-win situation for the pair, she adds.

This year, Cargojet is also running a Wednesday freighter for Air Canada to Bogota and back. While the other flights are routed over intermediate points, this operation is straight down and back, so the aircraft returns to Hamilton in time for its night job, reports Mr Johnston.



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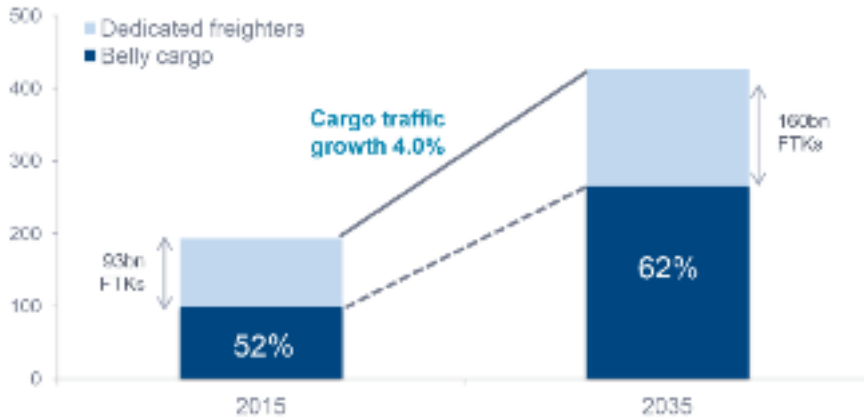
**– Gord Johnston, senior VP sales, Cargojet**



## Belly capacity will capture more market share from main deck freighters

### Worldwide share of belly vs dedicated cargo traffic

Estimates FTKs (billion)



#### Belly capacity

4.6% RPK growth

8,900 new widebody passenger aircraft

Impact is mainly on long haul flows

Main assumption: Belly load factors remain stable

Source: Airbus GM™ 2016

About 65-70% of the freight on Cargojet's flights for Air Canada connects to the passenger airline's network. The interface is not straightforward. Cargojet operates out of Hamilton International airport, about 45 minutes trucking distance from Air Canada's Toronto hub. Still, this has not created any challenges, according to Mr Johnston.

"Air Canada builds pallets and containers. The freight is trucked and gets into the container bypass system," he says.

Cargojet is no stranger to an ACMI role, having operated freighters for DHL, LOT Polish Airlines and Cubana. However, the Air Canada partnership goes beyond a pure ACMI arrangement; it also has an interline element.

One regular flow is seafood from the Canadian east coast which the freighter outfit takes to Hamilton to transfer to Air Canada departures out of Toronto.

"We've been doing interline for years. Sometimes Air Canada feeds to us from Bogota to the Maritimes," says Mr Johnston.

"We don't sell from Latin America and

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## Belly & freighter networks: a forwarder perspective



Pure belly operators are of limited interest to Panalpina, which regards freighter capacity as vital.

“The majority of our air cargo is on maindecks,” says Lucas Kuehner, global head of airfreight. This has not changed in a significant way in recent years and he does not expect any shift there.

A considerable chunk of this traffic moves on the company’s dedicated freighter flights. This is run as a stand-alone operation but is managed as part of Panalpina’s overall network and fully integrated in it. The second pillar consists of standing deals with carriers, predominantly block space agreements. Most of these cover the major markets, and the majority of them involve freighters.

“The top 20 carriers we use are either pure freighter operators or combination airlines,” says Mr Kuehner.

Based on the strategic pillars of dedicated capacity and fixed allocations, Panalpina strives to optimise the network, with tactical decisions made at the gateways on a daily basis.

“We try to create an overflow situation in a gateway where we have our own freighter and then decide what makes more sense to go on the freighter or on a commercial flight,” Mr Kuehner says.

The biggest benefit of its dedicated freighter operation is the control it gives the forwarder – not only in terms of what is loaded on the aircraft, but also in terms of access to the cargo. It also helps with large shipments, as shippers prefer not to see their traffic split over various flights, notes Mr Kuehner.

In this scheme of things, a belly carrier that offers maindeck capacity through a freighter partner is a viable option, but a transfer between the two to a connecting flight would mean an unwelcome complication. On the whole Panalpina tries to avoid using multiple carriers to move a shipment.

Mr Kuehner expects to see more carrier alignments ahead. “For us it’s important who is the leading party and who has the authority to execute,” he comments. “The proof is in the pudding. It’s all in the execution.”

Frankfurt, but we sell to Air Canada destinations. It gives us pricing on its network. We are not competing with each other.”

Moreover, Cargojet can tap into Air Canada’s presence in markets outside its own network for backhaul for ad hoc charters.

“If you have a charter to Latin America and you work with somebody like Air Canada which has boots on the ground there, that helps us,” Mr Johnston says.

### Different models

IAG has leased freighters to supplement its belly fleet with a number of operators over the years, but it found that sometimes less than a full freighter works better. This led to the arrangement struck with Qatar Airways in 2014, when the European carrier cancelled its ACMI lease for 747-8F equipment and, instead, took the majority of the space on a Qatar freighter moving Hong Kong-Doha-

London. This replaced the 747-8F IAG had going direct from Hong Kong to its hub. The agreement was subsequently extended to other points.

Lucas Kuehner, global head of airfreight at Panalpina, reckons there will be more airline partnerships along these lines, as well as more joint-ventures like the ones struck by Lufthansa Cargo with ANA, Cathay and United. Likewise, Mr Steen sees fertile ground for freighter and belly operators to collaborate.

“There will be opportunities for companies that are agile. We will see some new collaboration models emerge that we haven’t thought about. Three years ago nobody thought Amazon would have freighters,” he says.

Such opportunities beckon across the freighter spectrum, from large widebodies to narrowbody planes, he notes.

“Look at intra-regional growth in Asia.

This uses all different kinds of fleet type, down to 737s,” he says.

For the Air Canada-Cargojet venture, the biggest mountain to climb was to obtain clearance from the authorities in Mexico and Colombia.

“Getting them to understand how we wanted to operate was the biggest hurdle,” recalls Ms Turpin. “If you want a full alignment, you need to go for antitrust immunity. That’s worth more than an equity stake,” says Mr Menen.

At the same time, partners have to ensure they get the fundamentals right. Mr Kuehner has seen airline partnerships where both carriers work together, but in other cases the alliance amounted to little.

“Some companies get their act together and show clear leadership and direction. In others nothing is really changing. You can see two companies selling the same capacity at different rates,” he says.



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