THE LOADSTAR

LongRead

LongRead Vol 12

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In air transport, 2017 trade in perishables was outstripped by growth in general cargo. According to air cargo market data specialist WorldACD, between January-October, general cargo tonnage increased by 11.5% compared with 3.8% for perishables.

The Amsterdam-based analyst recently expanded its product data information to cover 11 different air cargo categories. Perishables showed the smallest increase out of the four largest categories, with vulnerables/hi-tech up 17.1%; pharma up 13.6%; and dangerous goods up 6.4%.

Within perishables, WorldACD notes that growth was primarily driven by the flower markets, which increased by 9.8%, compared with fruits and vegetables (up 4.6%) and fish and seafood (up 4.6%).

"The two most important flower markets show very different fortunes in 2017," says WorldACD managing director Gerard de Wit.

"While flower transport in the Colombia-USA market increased by 19% year on year, the market from Kenya to The Netherlands was flat, and yields did not increase for both markets, contrary to the general worldwide yield trend for 2017."

For fish and seafood, adds De Wit, volumes from Chile to US Atlantic South increased by 3%, whereas the market from Norway to Japan was up 17% with a US$-yield increase of 2%.

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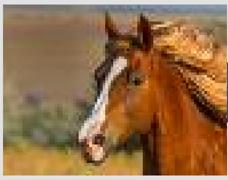

LIVE ANIMALS

PERISHABLE CARGO

PHARMACEUTICALS

SHIPPING AND HANDLING AIR CARGO?

Avoid delays, additional costs and dissatisfied customers

IATA cargo standards manuals are the industry reference for air cargo shipping and handling, covering all your information needs from specific cases such as live animals, dangerous goods and perishables, to overall standards and procedures. Referred to by national regulatory bodies in the development of their own regulations and laws; followed by major airlines and key players in the air cargo supply chain, IATA cargo standards are the information source you can rely on to ensure shipments are prepared and handled safely and comply with regulations.

iata.org/cargo-standards

IATA

Perishables networks

Panalpina consolidated its African perishable operations in 2017 with the acquisitions of Dutch handling agent Interfresh and Kenyan forwarder Air Connection. And in December, it added yet another string to its bow, buying Belgian perishables handling specialists Adelantex and AD Handling.

Adelantex, which handles 75,000 tonnes of air freight imports a year, gives Panalpina access to the Belgian market, as well as its operations at Brussels and Liege airports.

The 3PL also purchased Kenyan air freight forwarder Airflo in 2015.

The move is part of a strategy by the forwarder to form a global perishables network.

According to a Transport Intelligence report on the company: "Worldwide transport of perishables constitutes a huge market, with Panalpina aiming to become the leader. By 2020, under the umbrella of the Panalpina Perishables Network, it aims to be the preferred global supplier of perishables logistics."

Panalpina's Kenya country manager, Conrad Archer, says the African perishables market is continuing its diversification into destinations outside Europe, with notable growth in exports to China.

"The Middle East is still the second-largest consumer market for Kenyan perishables after Europe, and we've seen good growth out of Morocco and South Africa too."

In flower markets, he said improved logistics efficiency has led to more value-added services.

"What was considered impossible a few years ago is now possible. Consistent single-digit temperature cold chains can now be sustained, not only on main transportation routes into Europe, but as far away as Australia."

The increased demand for DIY bouquets has implications for logistics operations, notes Astral Aviation chief executive Sanjeev Gadhia.

"It's very positive for flower producers, as this will lead to an increase in volumes. However, for the logistics sector it will result in an increase in number of shipments per flight."

Gadhia says Astral enjoyed consistent uplift of perishables in 2017, including cut flowers and vegetables flown on its B747-400F routes out of Nairobi to London, which increased by 12% to 12,000 tons.

Astral also carries live crabs and fish

IATA eyes perishables certification

Plans to implement an air freight perishables certification are proceeding at pace, with the International Air Transport Association (IATA) eyeing 2019 to begin a pilot phase.

Senior manager for special cargo at IATA Andrea Gruber says the prospect of a Centre of Excellence for Independent Validators (CEIV) "Fresh" product has been well received by the industry.

"We are very much still in the research and analysis phase, but hope to have settled on a framework and determined the certification by the end of 2018," says Gruber.

"In the second half of the year, we will be looking to find candidates that are available to participate in the pilot phase."

With IATA's pharmaceuticals CEIV programme having already been operating for the last three years, it is hoped the process for rolling out a perishables programme will be greatly reduced.

Gruber believes that with the Fresh product being driven by the industry, as opposed to the regulatory requirements for pharma, there will be a lot more leeway on what it can do.

"And by piloting it, we can ensure that both companies and the various stakeholders benefits from the programme," says Gruber.

"It will also give the industry a chance to examine it before deciding whether it will be taken up by the wider airfreight community."

Despite an element of success with CEIV, IATA has also faced a backlash from some within the air cargo supply chain who suggest it is little more than a marketing exercise.

Some allegations even go further, implying that it creates a two-tier system, with shippers expecting CEIV but only the bigger companies able to afford the "expensive" process to gain certification.

While acknowledging these allegations exist, Gruber contests the idea that it prices players out of the market, creates a two-tier system and is merely a marketing tool.

"Those among the original batch to receive certification are now going through a process of being recertified – if this was just a marketing ploy, why go through the lengthy process?" she asks.

"It is not just a certificate, it is a change of mindset and a way of raising the bar for airfreight processes and quality of service."

Gruber also claims there are companies that operate in niche markets, or could be considered smaller players, that have opted to go through certification.

She also says that in terms of the "high" costs involved, there are always ways of finding solutions to help companies.

This will be particularly important for the Fresh product, with a large percentage of produce coming from developing countries where access to resources is often a lot more limited.

"Cost for the Fresh product is being debated with this in mind, but we remain committed to launching a perishables certification in the coming year," she says.

"Particularly with population growth, the spend on perishables is escalating and, as that continues, CEIV can ensure sustainability and reduced waste, and maintain and improve quality."

fillets on its various regional flights, with an average uplift of 300 tons last year. The carrier plans to acquire a second B747F in 2018 for extra capacity into London Stansted and Liege.

Gadhia notes that while foreign carriers have been reducing capacity to Africa, Astral remains cautiously optimistic of positive export growth to Europe.

"Astral continues to have an optimistic strategy for Africa due to its established tradelane for perishables northbound, which is combined with consistent southbound volumes of consumer goods and oil and gas cargo into West Africa, which is a perfect triangle route."

A lack of maindeck capacity out of Africa is a "looming cloud" for the sector, according to Panalpina's Archer, who says this was due to "massive demand elsewhere in the world" and the scarcity of southbound cargo.

"Rates are increasing and this will likely continue, reversing the trend of previous years. Of additional concern is the difficulty of freighter operators to get traffic rights for scheduled flights, especially in Kenya.

"Another concern is airport congestion in Europe, which is leading to reduced freighter slots at the traditional destination airports and driving operators to new destinations. However, the cold chain facilities at these airports are not as good."

Like Panalpina, Kuehne + Nagel (K+N) was on the acquisition trail in 2017. K+N purchased US-based Commodity Forwarders and Kenya's Trillvane, both specialist perishables forwarders, adding around 150,000 tonnes to its network. The 3PL's perishable air cargo volumes grew organically by roughly 10%, year-to-date November.

"Should we include the volumes generated by the acquisitions conducted earlier this year, we would, of course, come to an even higher figure," says Dennis Verkooy, global head of perishables, air logistics, at K+N.

Verkooy highlights super foods as heavily influencing air freight, especially avocados from all production regions into Europe.

"Another fresh product which we have seen growing substantially over the past year is fresh salmon from Norway, in particular on the transatlantic lanes. And China has shown growing interest in fresh seafood imports."

Going for the 'ultra' in freezing

The container lines are attempting to take some air freight market share by offering ultra-freezer services.

South Korean container carrier Hyundai Merchant Marine (HMM) has followed CMA CGM and Maersk in launching an ultra-freezer reefer service for food shipments that need to be transported at -60°C. Normal reefers transport goods at -35°C to -40°C.

"High technology and skilled personnel are also needed, as ultra-freezer containers need to maintain the very low temperature during shifting, loading and discharging.

"Due to such reasons, freight rates of ultra-freezer service are four-to-eight times higher than regular reefer containers," the company says.

The line will also offer shippers of goods such as raw tuna and sea urchin the option of ocean shipping, rather than using air freight, as most currently do.

Meanwhile, HMM says it has also successfully completed its pilot operation of Internet of Things (IoT) technology on reefer containers, which began last August.

"With the IoT technology, cargo status (such as location, temperature, humidity) will be checked and managed live on-time. Combining the blockchain technology with the IoT technology will also expand the range of IT systems in the shipping industry," HMM says.

Brussels boost

Brussels Airport worked closely with K+N and Ethiopian Airlines to develop its burgeoning flower imports.

"This has resulted in a stable and good operation and, since then, other airlines have also operated flower flights on a regular basis to Brussels," says Steven Polmans, head of cargo and logistics.

Brussels enjoyed "spectacular" perishables growth in 2016, Polmans adds, as a result of new scheduled flower flights and an "impressive number" of charters for producers in the last quarter.

"So we're pleased to see that our perishables imports continued to grow, with an increase of 5%, last year."

As well as full cargo flights for flowers, which are promptly trucked to auctions across western Europe, Brussels receives food imports from Africa, South America and Asia, via freighters and belly capacity.

"There you also need good infrastructure and cooling rooms, as well as forwarding companies that are part of the process," said Polmans.

The airport works closely with the local air cargo community to improve the handling of perishables, and next year it will launch a project to reduce handling times by further digitising administrative processes.

On track with rail

Meanwhile, rail freight is becoming an increasingly viable option for perishables shippers. For example, within Europe, in 2017 Cool Rail launched, to reduce truck miles and move cargo up from southern fruit producing regions to the northern consumption centres. Running from Valencia to Cologne, the refrigerated block-train service takes three days, one more than by road, but each container travels 83% fewer truck-km.

However, it's the Asia-Europe refrigerated rail services which are really making a splash with perishable supply chains. Spurred on by the Belt and Road Initiative (BRI), rail services

linking China and Europe increased exponentially in 2017.

DB Schenker experienced 50% growth, handling 30,000 teu compared with 20,000 teu in 2016. While the reefer share was around 65%, the 3PL stressed the majority of those shipments are westbound electronics transported during winter.

Nevertheless, Europe's eastbound perishable exports are playing an important role in balancing out east-west rail volumes. According to DB Schenker north and central China chief executive Thomas Sørensen, China's household income growth and urbanisation is driving fresh food consumption across the country.

"China's demand for fresh, safe and high-quality food is expected to increase by 17% until 2025, exceeding its capabilities to produce and deliver domestically. This is also why fresh food imports from Europe have become increasingly important."

Indeed, he describes the demand for perishable shipments from Europe to China as "enormous", adding that the main commodities shipped are milk powder, bacon, cheese, wine and fine chocolates from countries such as Germany, the Netherlands and Italy.

DB Schenker helped pioneer the use of reefer trains for sensitive westbound electronics shipments and is now working with Chinese rail firms on further utilising these services for year-round eastbound temperature-sensitive cargo of all kinds.

Furthermore, Sørensen is unconcerned by rumours that Chinese rail subsidies may end as early as 2019.

"We don't see this as huge challenge. Even though direct subsidies may end, China decided to increase the number of yearly operated trains to 5,000 by 2020.

"In addition, Xi Jinping recently proclaimed China's further investment in the One Belt, One Road initiative for the next five years.

"Thus, we still look at a steady growth of rail connections between Europe and Asia up to 2023. And using the economy of scale, the growing number of trains will decrease the production costs, which means the subsidies may disappear completely while the rates will remain stable or grow moderately."

Perishables by sea

The global reefer market grew by an estimated 5.2% in 2017, according to Maersk Line. The bulk of the growth took place in Asia where reefer volumes rose above 12% thanks to strong protein and fruit imports from Europe and the Middle East, as well as high performing intra-Asia trades.

"This is still well above the overall growth in container shipping and follows the trend of 4-5% over the last six years," says Anne-Sophie Zerlang Karlsen, the carrier's global head of reefer management.

"On the flip-side, there was dampened growth in east coast South America, where the economic situation's impact on trade has been amplified by governmental bans against Brazil's protein, such as by Russia and China for periods of the year," adds Karlsen.

As well as increased volumes, carriers were able to significantly raise their prices in 2017. Drewry senior consultant Stijn Rubens says reefer shipping experienced a major shift following two years of rock-bottom freight rates.

"The story of 2017 is one of turnaround driven by strong volumes and consolidation among the shipping lines."

Using data from Drewry's Reefer Benchmarking Club, Rubens notes a 15% increase in the year-to-date average freight rate compared with 2016.

And, he adds, while there was renewed jockeying among carriers in the last two months of 2017, resulting in some rates declining, this was "just a blip". For instance, Europe-Asia rates leapt from $1,200 to some $2,500 when the carrier alliance reshuffle took place in April.

"Now they're cooling off to around $2,000-2,200. So they're down quarter-over-quarter, but they're still at a really high level."

Crucially, the impact from consolidation is only just beginning and the full reefer-ramifications of three major M&A deals are yet to be realised: COSCO's acquisition of OOCL, Maersk Line's takeover of Hamburg Süd and the merger of Japanese-trio MOL, NYK and K Line.

Carrier consolidation will come as a double-edged sword for many perishable shippers. On the one hand, having fewer carriers to choose from can give supply chain managers a headache when it comes to risk planning.

Rubens explains: "Many shippers have a risk strategy whereby they don't give more than 20-30% of their business to one carrier.

"But that strategy was left in pieces when the new alliances kicked in, because, as the reshuffle wasn't aligned with the tender period, they had already allocated their volumes and therefore some shippers had weeks where up to 60-70% of their cargo sailed on a single vessel due to the way these lines share capacity."

However, improved carrier profitability means more industry stability and more investment in reefer boxes and related cold chain technologies.

Reefer shortages

This will be welcome news after the acute reefer box shortages experienced last year – the result of a dearth of orders during the hard times of 2015 and 2016, says Rubens.

"Now the reefer manufacturers' order books are full, but the damage is done because their production capacity is limited. We think the shortage of boxes

Brussels Airport

Biggest number of CEIV pharma certified companies

Biggest concentration of dedicated pharma infrastructure

Controlled temperature through the entire cool chain at the airport

Excellent geographic location for pharma consolidation and storage

The Preferred Pharma Gateway

will carry on until at least the summer of 2018. So there's only one way freight rates are going to go and that's up."

Karlsen adds: "There is no doubt that the surplus of reefer equipment is diminishing. In 2017 we saw large market shortages in both North Europe, Mediterranean and East Coast South America."

She reckons the reefer shortage played a role in stunting South America's export growth, but that this was primarily caused by carriers' box repositioning constraints, rather than a lack of global reefer supply.

"Shipping lines are designing their networks for high utilisation – that is the only way to be cost competitive, which is a must to survive in today's shipping markets.

"And when the Asia markets grow at plus 10%, a lot of the global reefer equipment ends up in Asia, where there are limited options – especially during the pre-Chinese New Year peak - to take it out again, as the networks are full.

Europe-Asia rates leapt from $1,200 to some $2,500 when the carrier alliance reshuffle took place in April

"Reefer rates used to be at levels where shipping lines would prioritise positioning a reefer box over loading a dry – any day – but the world has changed, and that is no longer the case."

As a result, she adds, reefer rates "must increase because the current situation where shippers sometimes are left without equipment can destroy businesses".

Last year, Maersk Line launched its in-house temperature monitoring service Remote Container Management (RCM). RCM provides shippers with direct access to their reefer's current location, temperature, atmospheric conditions and power status. Karlsen says the carrier already has half of its reefer business signed up to RCM.

"Fruit shippers are using it to make better and faster decisions in their supply chain, as well as to have better conversations with partners to solve quality concerns; fish shippers are evaluating the value of RCM in relations to their insurance premiums; and we have seen protein customers regaining stolen cargo in a matter of hours."

Ignore Amazon at your peril as it feeds on a booming market

Amazon's $13.7bn purchase of Whole Foods shook up the online grocery sector.

The e-commerce giant's ability to withstand years of losses before turning a profit has seen it bulldoze competitors on its path to market dominance elsewhere. For many the Whole Foods acquisition merely represented its latest salvo on a path to e-commerce superiority.

Early indications appear to back this claim up. One Click Retail reports Amazon sold some $2bn of groceries in the US alone last year – representing a 59% uptick on 2016. Similarly, its next largest markets – Germany and the UK – also reported growth north of 50%.

Those US figures led to it accruing 18% of the country's online grocery sales. To put that into perspective, it's double what the second-largest retailer, Walmart, can boast.

"Food and beverage is one area in which e-commerce penetration lags, with consumers slow to embrace online grocery shopping; they prefer to touch and smell fresh food before buying," notes One Click Retail.

"To this end, Amazon created the Amazon Fresh service, investing heavily in making same-day delivery available to more customers in an effort to build consumer confidence.

"These are just some of the factors

driving growth rates north of 50% in the company's three biggest markets, and we expect these growth rates will actually increase in 2018."

One Click Retail adds that "all-time high" US and European penetration, record Prime membership sign-ups and the Amazon Fresh roll-outs were behind its confidence in Amazon's grocery potential. Partner at Triangle Capital Richard Kestenbaum says he believes grocery is attractive to Amazon because its scale is so big.

"As Amazon has grown, there are fewer and fewer classes of product left for it to grow into to achieve the continued growth it needs to maintain its stock price and its low cost of capital – grocery is a category that it must grow into," Kestenbaum says.

"I believe neither Amazon nor anyone else knows how to succeed in grocery by delivering product to consumers at home and making money at it. Almost no one in the world has done it and the formula is not set."

Kestenbaum is convinced it works better in cities with higher densities, like London, Singapore or Tokyo. Outside those places no one has a formula. For Amazon, he says, this is less important because the growth it needs is top line.

"But even Amazon can't ignore the cash drain that scaling in groceries will bring, if it can't find a way to make money at it," he continues.

"I believe technology will break many barriers, not merely because of efficiencies in delivery but also in product handling and product selection, particularly meat, fish, produce and other perishables. That will drive consumer adoption and help drive growth."

Founder and chief scientific officer at Blue Yonder Michael Feindt says Amazon's big advantage is that it uses artificial intelligence (AI) and is data-driven in all its processes. This (combined with massive cash reserves) allows it to react quickly to situations and act immediately when it comes to systems-implementation.

However, Feindt believes – as does Kestenbaum – that the core drawback is quality. Customer concern over whether the food – particularly fresh fruit and vegetables – picked for them would meet the quality they would themselves choose is a stumbling block. For Feindt, it is a stumbling block that will limit opportunities – at least in the short term.

"I would not order food online, and I do not believe fresh food will be shopped 100% online – at least in the near future – with people continuing to pick it themselves," he says.

"Theoretically, using technology for analysing fruit and veg at piecemeal level to guarantee quality is possible. This would work for apples and tomatoes. It would not work for sushi. Maybe retailers will consider this but there's so much criteria that must be considered.

"This isn't to say Amazon doesn't present competition for the grocery market. It is, of course, opening its own stores.

"Not recognising the potential threat and competition Amazon poses would be a significant mistake."

The Amazon effect on customers

While some customers do not want to order food online, the e-commerce effect has appeared to change some buying habits.

"Perishables are changing. Every day, something new comes along. People want their products faster and cheaper," says Rodrigo De Narvaez, director business development for 21 Air.

He believes e-commerce has changed the expectations of shoppers – whether buying online or not – and therefore the requirements of retailers, and this has begun to impact perishables logistics.

Speaking at Air & Sea Cargo Americas last year in Miami, he explained that he had seen avocados and even potatoes air freighted recently, despite their weight.

"E-commerce has sped up transit times – people want the product faster and fresher."

One of the ramifications is that carriers must now learn about requirements for products they are not used to carrying.

"We have never carried potatoes before – we didn't know the product at all. The industry has to get together with producers and agents and learn about new products."

But faster transit times also mean higher costs. De Narvaez added that "logistics has to change. Margins are getting so thin for the producer and grower".

He recommended more direct transport with fewer stages – and handlers – in between.

Instead of flying Europe's perishables imports via the Netherlands, which was said to handle 80%, he had found leisure flights between South America and the Caribbean to Europe more efficient – and allowed for higher margins.

"Why send it to Amsterdam and truck it to Rome, when you can go direct to Rome? People are starting to understand that they can have fresh food anywhere."

He also noted that very different buying habits in the US and Europe had an impact on perishables logistics.

"The biggest difference between the US and Europe is the size of the fridge. Europeans have smaller fridges and tend to go to the market every day or two. In the US, they buy huge quantities and only need to go once a month."

He added that this also affected demand for ripeness: in the US, buyers want their flowers closed; in Europe, they prefer to buy them already opened, more often.

"If it's in the fridge for a month, it's no longer perishable. But e-commerce has meant time is of the essence – if I can't supply goods as fast as Amazon, then I am not as good."

He added that there were also fewer, but larger, US importers, which put additional pressure on margins and risk.

"A British importer will have many more events in a month – the US takes cargo less often. And there are fewer importers with bigger volumes.

"I would rather carry 100 tonnes for six or seven customers; I'd rather have six people owe me money than one. More importers with smaller bundles gives me more flexibility."

LongRead

To come in 2018

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