

AIR CARGO

# FOCUS

CNS >



On the Cover  
**Robert Horton**  
Vice President Environmental  
Affairs  
DFW Airport

Fall / Winter 2022

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- 4 President's Corner – Laura Pullins
- 6 Editor's Notes – Alexis Dames
- 7 Sustainability Focus – Robert Horton  
VP Environmental Affairs - DFW
- 16 From the Top – Martin Drew  
Senior VP - Global Sales & Cargo, Etihad Aviation Group
- 23 Legal Perspective – James Collins  
Environmental Sustainability in Aviation Finance -  
Stephenson Harwood LLP
- 25 From the Top – Vaughn Moore  
CEO, AIT Worldwide Logistics
- 29 Industry Snapshot- Avianca Cargo CEIV Fresh Certification-  
Gabriel Oliva & Ronald Schaefer (IATA)
- 34 CASSLink Update - Alexis Dames
- 35 CASS-USA Market Monitor

# President's Corner

## Remarks by Laura Pullins



Laura Pullins

Greetings, Industry Peers!

It is my honor to address you as the new president of CNS. More so, as the first woman to hold this esteemed position. It is exciting to see that the air cargo industry is creating more opportunities for equality at every level.

Throughout my career, I have been fortunate to learn first-hand about several key aspects of our industry. The most important of which, happens to be the amazing people who work every day to make air cargo flourish despite the many challenges. I am grateful for all the colleagues whom I've collaborated with on my journey. Their guidance and support have helped me assemble a wealth of knowledge that has been critical in my leadership roles in supply chain logistics, digital transformations, and technological innovations.

As president of CNS, I will be working diligently with the team in Miami and the customer advisory board to assist the air cargo industry. A few key areas that we will continue to report on in Focus Magazine include:

**Safety:** Keeping a mindful eye on safety is one of the most important areas for all supply chain stakeholders. Through education and keeping members up to date about dangerous goods requirements and training, we can all continue to establish and implement proactive procedures. Trending topics like lithium battery safety are especially important.

**Digitalization & Technology:** With the launch of CNS CASSLink, the industry has access to the next generation of payment settlements and convenience for our customers. We will continue to gather feedback from our membership and develop features for future updates. Our pursuit to press for streamlined process within air cargo that result in the paperless transmission of data will continue.

**Sustainability:** Exploring sustainability and identifying key players in the space, will provide benchmarks for the industry's efforts as we work together to achieve net-zero goals. Not only

is it critical that we strive to meet our sustainability goals, we are committed to supporting climate disclosure requirements by providing standardized processes and tools to measure emissions. The US Environmental Protection Agency definition of Scope 3 is emissions resulting from activities and/or assets not owned or controlled by the reporting organization, such as those of its suppliers and vendors throughout the value chain. It is important to be thinking about providing CO2 related data to your customers. Extensive coverage of this topic will be featured in upcoming issues of FOCUS.

**Culture and Education:** Catalyzing a culture of quality, equality, and customer success will also be at the top of the priority list. People are the backbone of CNS and I am passionate about creating a company culture that thrives on diversity, positivity and innovation. Educating and encouraging our young people to seek a career in supply chain and air cargo will be on the forefront of our mission to inspire and attract talent to the industry. We will continue to provide updates on exciting partnerships we are embarking on with universities and community colleges.

There have been many notable developments within the industry since we all convened at the previous CNS Partnership Conference in Phoenix. During the next editions of FOCUS, I will be directing the team to explore and present topics that you, as key decision-makers, need to know. It is my belief that together, we will continue to grow air cargo as a key mode of transportation amongst the shipping community.

"Aviation proves that given the will; we can achieve the impossible." Eddie Rickenbacker

Laura Pullins,  
President, CNS



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# The Glidepath

## Safety, Innovation and Progress



Alexis Dames

During the 1920's, incremental demand for air service catalyzed the creation of aerodromes —the term Europeans used at the time for rudimentary landing fields. By the end of the roaring decade, those landing fields grew to 145 operational US municipally-owned airports. Some European nations also established airport systems that took root throughout the world.

To ensure safety for the growing number of daytime and nighttime flights landing in a wide range of weather scenarios, improved guidance systems were developed. The pinnacle of these systems was the Instrument Landing System (ILS), which was an amalgamate of the best attributes of previous landing aid technologies. Essentially, the ILS system provides lateral (localizer) and horizontal (glideslope) guidance for pilots to fly a precision approach. In 1938, the first passenger flight to use an ILS in IFR conditions occurred. Pilots will attest that ILS continues its mission of guiding planes safely throughout the world. Throughout its many iterations, the ILS system kept its same design with a level of simplicity and effectiveness that challenges obsolescence. As the industry embarks on its transformational journey to digitize and optimize the supply chain, we recognize there are few tools of change-resistant technologies, such as the ILS, that have stood the test of time.

**Digital transformation** creates new opportunities and issues. Regulators wanting to stay ahead of the curve, introduce new frameworks and requirements that increase workloads. The rise of eCommerce demand has challenged every link in today's supply chain. With the adoption of Electronic Air Waybills (e-AWB), large amounts of data are produced that must be categorized, correctly stored and seamlessly accessed. Each new step leads to other issues such as cybersecurity threats, the potential for breaches and the introduction of 5G networks. New carbon neutrality goals require stakeholder participation in order to decrease carbon output through a hefty set of sustainability-driven actions. Today, solutions and systems are needed to precisely guide the Air Cargo Industry.

Our Fall / Winter issue explores new opportunities available to CNS stakeholders who are developing and retraining their organizations to resolve next-gen industry adaption and policy-making concerns. Below is a snapshot of authors and topics found in our Fall / Winter issue.

**James Collins** of Stephenson Harwood LLC provides a follow-up article to better understand sustainability as it pertains to the financial industry. This topic has started to shape many of the industry's key players including how OEMs, suppliers and operators view the future of their businesses. Financial institutions are acutely aware of issues and opportunities these developments present.

**Vaughn Moore**, Executive Chairman and CEO of AIT Worldwide Logistics works on global management systems. AIT's North American network delivers true end-to-end solutions. Global growth demands scalable programs. It is critical for all AIT partners to have a variety of sector-related capabilities that supports AIT's life sciences, high-value, food logistics, and other special services at the highest level.

**Robert Horton**, VP of Sustainability, Dallas Fort-Worth Airport, discusses how framing each business decision through a sustainability optic generates growth and lessens the impact of day-to-day operations.

**Martin Drew**, Senior Vice President Global Sales & Cargo, Etihad Aviation Group, presents a carrier's viewpoint for expansion and strategies employed to address port congestion, network capacity and sustainability.

**Laura Pullins**, President and Head of Cargo, The Americas, Cargo Network Services, shares her views in the President's Corner. Pullins covers relevant topics discussed by industry leaders in boardrooms nationwide.

This **CNS FOCUS Fall/ Winter issue** provides comprehensive perspectives to serve as an impetus for future discussions. By working together as an industry, we will remain on a glidepath towards profitability and growth.

Alexis Dames Vandenberg

Editor



NOTE: To contact the author, please email alex@avtimespg.com

We welcome your comments, opinions and suggestions regarding the present and future issues of CNS Air Cargo Focus Magazine. The Fall / Winter 2022 edition of this publication is available online at [www.cnsc.net](http://www.cnsc.net)



# Sustainability Focus: Robert Horton

## Vice President Environmental Affairs

### Dallas Fort-Worth Airport

by Alexis Dames



Robert Horton

#### About Robert Horton

As VP of Environmental Affairs, Horton is responsible for proactively and predictively creating and driving global action on sustainable economic growth. He is highly regarded as an environmental and sustainability executive with 18 years of experience. Horton brings new ideas and collaborates with diverse stakeholders to advance and leverage digital ecosystems to efficiently and effectively solve complex problems.

Horton is a member of the Alliance's 50x50 Transportation Commission, whose mission is to improve energy productivity by leading bipartisan initiatives that drive technological innovation and energy efficiency across all sectors of the economy, through policy advocacy, education, communications, and research. The Commission's focus is to engage diverse public

private partnerships, using collaborative efforts and strategic alliances to optimize resources and expand its sphere of influence.

**Focus:** When did DFW begin purchasing electric vehicles for its fleet?

**Horton:** We started purchasing electric vehicles a few years ago, and took delivery of the first electric airside vehicles last year. We are deploying four additional electric buses later this year. We also acquired our first six electric sedans, all of them funded by federal grants.

**Focus:** Do you plan to convert all DFW auxiliary and emergency fleets to 100% electric vehicles? What additional Net-Zero projects will be in service?

**Horton:** Fleet conversion is part of our roadmap to achieve Net-Zero by 2030. This requires looking at every source of energy that generates emissions. We began with electricity, which was almost 70% of our footprint, and offset that by purchasing 100% renewable electricity. The next bucket on the list is incorporating natural gas for heating facilities.

Following natural gas, the DFW bus fleet will be pressed into service. We have almost 200 buses and considering the total miles driven, our buses could circumnavigate the globe every 18 hours. This was pre-COVID. Presently, it's plus or minus a few hours but those are the number of miles that we drive. However, we want to optimize bus service because the ridership is a relatively low 20%. We did some research on the use of digital twin technologies, and partnered with the Department of Energy, and the National Renewable Energy Lab to study how buses are used today.

We look for ways to optimize our strategy, while still meeting customer needs. We have set model criteria that allows us to benchmark customer sensitivities, mainly the time threshold between bus schedules and ride times. Additionally, we need to convert bus fleets from the current use of compressed natural gas, or diesel gasoline, to electric or other zero emission technologies.



A new electric bus from the DFW Fleet. Photo courtesy DFW.

**Focus:** DFW set 2030 as the goal for Net-Zero, more ambitious than goals established by other organizations participating in the CNS sustainability panel. Why was that date chosen?

**Horton:** The 2030 goal for Net-Zero was created because we saw it as an attainable target. Additionally, we wanted this ambitious challenge to show what we had proven over the past decades of investments and hard work, that sustainability investments and business performance can be complementary.

When we set the 2030 target, many of the current investments were made by the airport itself. These investments included transitioning to renewables and energy efficiency, which were variables that we controlled. The path to Net-Zero is more complicated because we have less control. For example, we require partnerships with the OEMs that are developing carbon reducing technologies, in turn they provide us with the information to build out the necessary infrastructure. Also, we examined resilient designs to meet airport needs. We saw how critical supplies became during last year's winter storms, when energy became a scarce resource.

Already in May of this year, we were receiving alerts from the grid. With unprecedented warm weather, we needed to conserve energy because of the loss of six generating stations.

Suddenly, we encountered critical capacity levels. Because of factors like this, when we think about electron availability to power electric vehicles, we need to operate and use energy in smarter ways, so everyone is not using electricity at the same time.

**Focus:** During the CNS Partnership Conference, you spoke of the aspirational goals DFW is focused on. What are they and how are you working to achieve them?

**Horton:** Over several years, we have adopted six aspirational goals. We began publishing our Environmental, Social and Governance (ESG) report in 2016 to demonstrate that as a global super hub, DFW is aligned with the 2015 UN Sustainable Development Goals, which are globally recognized targets.

Initially, we advanced 15 of 17 UN goals. We now advance 17 of 17 goals, meaning we are directly influenced by all UN Sustainable Development Goals. However, when you hear these different goals, it's difficult for stakeholders who don't specialize in sustainability to understand why these goals are relevant or important to them.

Why should other associates care about UN goals? To address this issue we created a subset of focus areas that align with these goals. The six focus areas, or aspirational goals for creating a sustainable airport ecosystem are detailed in the following paragraphs.



The first goal is **Climate Action**. This is evident from the effect that climate change shifts have had on weather and business. As a responsible organization, we have to mitigate our impacts and contributions to climate.

The second goal is **Energy Performance**. We know we are increasing our energy dependence on everything from opening and closing doors, to critical lifesaving tasks and airport operations. We will also need to access resilient decarbonized energy sources, available throughout any kind of disruption, in order to maintain the function of globally connecting people and freight.

The third goal is **Circular Economy**. Our Dallas-Fort Worth metroplex is one of the fastest growing areas in the country. There is increased competition for natural and physical resources. This competition manifests itself in congested roadways, coupled with shrinking available land and landfills reaching capacity. Costs of goods and services have almost doubled in the last 5 to 7 years. We are trying to decouple some of these economic trends from their negative consequences.

DFW is committed to create a more sustainable supply chain that allows us to take responsibly sourced materials at the end of their useful life, and convert them into a beneficial use. Our work includes food waste recyclables. We have learned that more than 50% of our landfill waste is actually recyclable. We have assembled new opportunities to increase diversion, to set a waste Net-Zero goal by 2040 and to divert 90% of our waste to landfill. Segregating waste requires careful planning on how and where it's goes. We will need beneficial policy and practice updates to ensure that better materials come onto DFW property.

The fourth goal is **Water and Biodiversity**. Many people don't connect water and biodiversity to climate, but it's connected to the way that we develop and grow land today. These natural systems play a critical role from regulating the earth's climate by absorbing excess greenhouse gases to reducing the urban heat island effect, which effectively reduces how much heat is radiated into buildings. There are a host of other programs like tree roots filtering ground water ultimately producing better quality drinking water. These actions have benefits such as stabilizing the soil so that sediment doesn't run up. When



Electric tugs. Photo courtesy DFW.



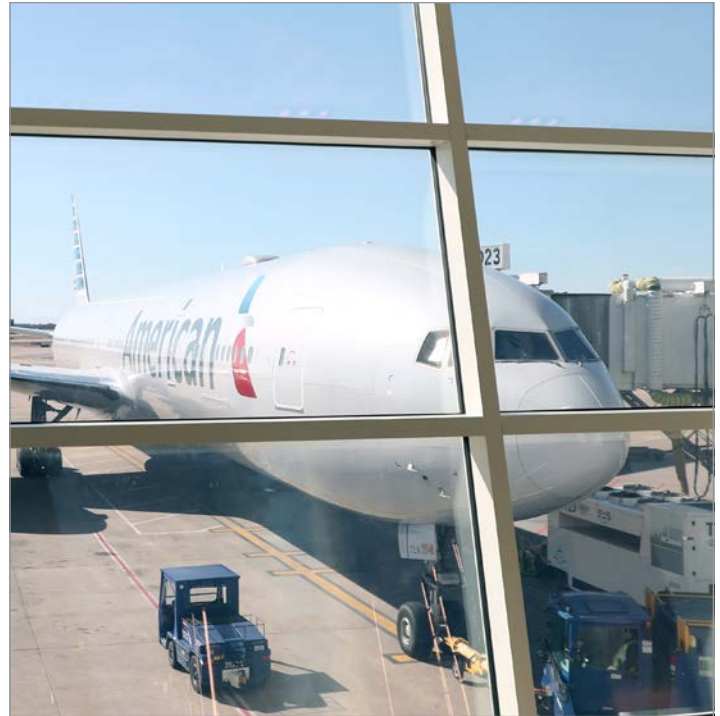
Dynamic Glass Comparison. Photo courtesy DFW.

these practices are applied, we take responsibility for those ecological services. Our goal is to restore, regenerate and create a positive balance for nature.

The fifth goal is **Equity**. DFW is recognized as an economic engine, responsible for generating more than \$40 billion in economic value to the region annually. We view ourselves as an important community asset. We support small businesses, above what is required by federal law, by allocating funding to grow supporting business. Because SMB businesses are the backbone of our community, we do capacity building with vendors to insure a healthy business community. Another part is based on title six, a federal requirement, which is known as environmental justice.

Each airport decision measures the impact of our choices, and we place great importance on never disproportionately affecting underprivileged communities. For example, when a runway is shut down, aircraft operations must go somewhere to ensure that traffic is not routed indiscriminately over any sensitive area. This is accomplished through research and study of community sensitivities. We make every effort to fly over industrial areas as opposed to residential. The key is to utilize areas that are compatibly developed.

The sixth goal is **Health and Wellness**. DFW teams have done a tremendous job of focusing on employees physiological, mental and emotional wellness. We have programs that have



paid dividends by doing preventive care for employees, resulting in lower health care premiums. It is a hugely successful program. We have learned that in built-out environments, the way you use the materials brought into these spaces, plays a role in the indoor environmental quality that affects human health. Designing for people and using better building materials such as Dynamic Glass to reduce the heat, helps improve productivity. We also placed sensors that measure air quality because high CO2 levels can impair cognitive function. These are some of the things that we study in order to develop technologies to improve the indoor environmental quality for both passengers and employees.

#### **Focus:** What role has technology played in sustainability at DFW?

**Horton:** In the sustainability field we have become so passionate and excited about the evolution of digital technologies, because in the past, we struggled to connect the dots between human activities or human decision making and some of the negative consequences. Now, with new data available, we can better connect the dots.

By using data from the same integrated technologies that enables us to understand the way we function, we are now able to reuse our systems to explore solutions. Now we frame problems and develop solutions in an integrated manner.

Traditionally, we fixed one component of a complex system, and then created a whole series of cascading impacts.





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Today, through digital integrated solutions, we are able to approach the system as a whole. We can now effectively de-risk ideas before proceeding to real world implementation, making each solution more impactful from day one, as opposed to the iterative method of trial and error.

**Focus:** What do you see as the ideal target and use of this technology regarding sustainability? What data would you want to source or provide in the future?

**Horton:** The most immediate use is indoor environmental quality. We began this effort before COVID. As soon as the pandemic became prevalent, environmental quality was the number one health issue. People were concerned over air quality and reluctant to enter buildings. As an industry, we needed to develop tools and build trust for passengers, employees and stakeholders to enter and feel safe in our spaces. During that time, we doubled down on sustainability investments. The benefits of improving indoor environmental quality was evident. We tracked real time data and CO2 levels and compared it to occupancy patterns. In August of 2021, there was a run-up in flight cancellations, and because we deployed sensors we were able to track a big spike in CO2 levels. This result indicated that passengers were stationary. With that data we went on to improve the HVAC system and bring CO2 levels back to an acceptable range. Using data, we are able to recognize patterns to improve building functions.

Transparency is another area that uses data. Any data source we can use to validate our actions helps us to continuously improve solutions over time, which is critical to us. We gather data for energy consumption, whether from the airport or partner sources, that helps us to develop better and more efficient solutions.

We developed a digital twin model to conduct collaborative research with the National Renewable Energy Lab on a project called Athena, which tracked the movement of people and freight to and from the airport, between the region and the airport, and on-airport sites. We saw that the tools were very helpful in understanding what was going on. We know that we need data from all the different partners to build up a full representation of what exists today. From that data we can find opportunities to improve the whole program and define each player's role in order to create a better system. We cannot do it alone; we have to depend on others. It's the power of partnerships.

**Focus:** How do sustainability issues influence DFW expansion and new construction?

**Horton:** As a result of sustainability work successes, our board now includes sustainability as an imperative. Sustainability is embedded in our strategic plan, and clearly laid out as one of the four pillars to achieve a safe and secure future for DFW. Today we work equally with digital, sustainability, innovation



SAF Fuel. Photo courtesy DFW.



Renewable Natural Gas. Photo courtesy DFW.

and DE&I. We're proud to be integrated into the organization's strategic plan. We are designing buildings to meet Net-Zero standards, which factors into today's building infrastructure. The US consumes 75% of all electricity, and 40% of all energy. When factoring in increasing electric vehicle consumption to electric loads, the cost impact will be significant. Anytime we can reduce waste by designing buildings that require less energy to operate and maintain, it will give us additional capacity to absorb the trends towards electric vehicles without creating additional grid impact.

**Focus:** What can air cargo customers expect from DFW's sustainability efforts?

**Horton:** Increased efficiency and lower operating costs was one of our immediate concerns. For example, roadway congestion causes air pollution due to the idling of internal combustion vehicles. Our goal was to better coordinate airport and vehicle activities that deliver freight, which had queue wait times of up to five- and six-hours. We coordinated and improved wait times by programming slots through our digital cloud platform. Truckers are now able to reduce wait times to

less than an hour. This significant improvement allows vehicles to get in and out more efficiently, which translates into less fuel costs. During hot Texas summers, AC is a must and no driver shuts off an idling vehicle, which directly affects driver fuel consumption. Our efficiency efforts translate into money saved and lower emissions. Forward thinking and integrated methodology translates to lower costs for each segment of the supply chain that operates at DFW.

**Focus:** As the indubitably more silent electric trucks enter the mix, do you foresee an increase in night trucking operations?

**Horton:** I will not pre-bias my answer. As we study the data, we may find that roadways allow more efficient operations if we shift some of the freight movement towards less impactful day times. The benefits could include reduced roadway packing, more distributed and balanced loads and working around rush hour peaks. These may be some of the outcomes produced from these exercises that will also undergo data validation.

**Focus:** Are late night air cargo operations under consideration?





Solar Panels. Photo courtesy of DFW.

**Horton:** That is one challenge most people are not thinking about. Cargo flights operate throughout the day. But cargo is heavy and the loudest part of aircraft operations, in terms of community noise, are takeoffs. The combination of airports surrounded by communities and heavy aircraft taking off all night will always create a negative impact. Because of this, aircraft noise has become another area we manage at DFW. Originally, our land comprised an area greater than Manhattan. Previously, we had large buffers around the airport so that noise was contained on the airport footprint. Since the 80's however, community development has encroached closer to the airport. As you can imagine, for convenience and other reasons, this means that the sensitivity of airport operations over these communities was heightened.

We look at everything through a holistic viewpoint to understand the benefits and tradeoffs of potential outcomes. Each and every aspect of a decision is explored.

**Focus:** Does DFW have any cargo infrastructure improvements underway?

**Horton:** Indeed. We are developing the northwest part of the airport. DFW is investing capital funds to build new facilities to

allow more cargo operations. We saw the opportunity during COVID, where cargo became the backbone that kept things flowing. When cargo flights were taking off, we were still supplying critical vaccines and other medical supplies to people in our community and around the world. Building a dependable, efficient supply chain is paramount to keep cargo costs down. Air cargo continues to play an important role and DFW leadership continues to invest in viable business infrastructures.

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*"DFW is investing capital funds to build new facilities to allow more cargo operations. We saw the opportunity during COVID, where cargo became the backbone that kept things flowing."*

**Robert Horton**

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**Focus:** Specifically, how has digital transformation improved sustainability and congestion?

**Horton:** Digital transformation is the largest project we have done. With the Athena project (using data-driven statistical modeling and artificial intelligence) along with National Renewable Energy Laboratory (NREL) and Oak Ridge National Laboratory (ORNL), we were able to study freight movements to and from the airport by surface vehicles. In 2018, we learned that 99% of people arriving at DFW used traditional vehicles. By 2030, projected scenarios reveal that if current vehicle patterns are not shifted, passengers and cargo will face total gridlock.

If we can safely coordinate and optimize traffic movements, then they can be redistributed. For example, by reallocating 15% of the vehicle traffic to trains coming from Dallas and Fort Worth, we will reduce vehicle volume and congestion.

However, this requires a transit partnership to look at the routes that makes the most sense, and ways to increase tram ridership. At the moment it takes about an hour from the city

center to the airport. If a more efficient route was created, I believe we can increase ridership while reducing road traffic. We use data to study traffic patterns and examine ways to mitigate congestion in order to produce efficient flows.

## About DFW Airport

Dallas Fort Worth International Airport (DFW) is one of the most connected airports in the world. Centered between owner cities Dallas and Fort Worth, Texas, DFW Airport also serves as a major job generator for the North Texas region by connecting people through business and leisure travel.



Note: For information on DFW visit: <https://www.dfwairport.com/>

# From the Top: Martin Drew

## Senior Vice President - Global Sales & Cargo

### Etihad Aviation Group

by Alexis Dames



Martin Drew

#### About Martin Drew

Martin was appointed as Senior Vice President – Sales & Cargo, Etihad Aviation Group in November 2020. As a member of the Etihad Aviation Group Executive Management team, Martin oversees Passenger Sales, Etihad Cargo and Etihad Secure Logistics, in addition to several business development opportunities at the Abu Dhabi hub.

With more than 20 years of experience in the aviation industry, Martin has served in various leadership roles across the cargo and aviation industry at international carriers including Etihad, DAS Air Cargo, ANA Aviation Services and Lufthansa Cargo.

Before stepping into the role of Senior Vice President for Sales & Cargo at Etihad Aviation Group, Martin headed Etihad Airways' global sales organization across 17 countries in Europe and the Americas, including Passenger Sales, Marketing and Alliances, with a revenue budget of USD1.65bn. During this time, he significantly improved the quality of business by reducing dependence on low yields through higher premium revenues, increased corporate traffic and improved the channel mix.

Martin also served as Vice President Cargo at Jet Airways, where he defined, developed and led a winning strategy for the company's long-term cargo business growth, in line with the airline's overall business objectives.

From 2005 to 2014, Martin held various senior positions at Etihad Cargo. During this time, he headed all commercial freighter activities and was responsible for freighter network planning, managing the airline's strategic fleet development while formulating and executing business strategies.

**Focus:** What has Etihad Cargo learned in terms of global supply chain constraints? How long do you expect these issues to continue?

**Drew:** One of the main lessons we learned during the past two years is that collaboration and working together are critical to overcoming challenges and moving forward. Over the last six months, the air cargo sector has experienced a new set of challenges, including high fuel prices, supply shortages, border and travel restrictions in Asia, including China's zero-COVID policy, which thankfully is easing now.

At Etihad Cargo, we have worked with stakeholders to manage the circumstances dynamically, focusing on providing capacity on key routes and expanding our network and operations. We reframed challenges as opportunities to enhance and improve our products and services, utilizing a proactive and customer-centric approach to manage each challenge. We maintain close customer relationships to ensure our solutions comply to their capacity challenges.

Despite continued challenges, demand for air cargo capacity has increased as a consequence of continued growth of eCommerce, pharmaceuticals, and perishables including food and beverage. In the June 2022, Air Cargo Market Analysis, IATA notes that air capacity is continuing to grow, increasing in





Etihad Cargo B777. Image courtesy of Etihad Cargo.

all regions. While capacity currently outstrips demand, we are optimistic that the sector will continue to stabilize as recovery continues into next year.

**Focus:** Has the pandemic impacted labor for the cargo industry in the Middle East?

**Drew:** Etihad's wellness program has ensured the safety of airport labor as well as all other staff. We proactively work towards solutions as required, such as rerouting flights through alternative gateways and utilizing our extensive network of road feeder services. Etihad's proactive approach to our scheduled routes extends to our ad-hoc services when required. We have the option of rerouting shipments through Etihad's passenger network, enabling us to provide an additional service for cargo customers while mitigating the risks of staff shortages.

To support increased operations, Etihad Cargo is actively recruiting to ensure we meet our customers' requirements and overcome any staffing challenges. Through Etihad's alumni program, we actively engage with team members who left during the pandemic to see if they would be interested in returning.

We invest in our teams through ongoing professional development opportunities to ensure up-to-date skilled people. We place a high value on retaining key talent. As we welcome new hires to Etihad Cargo, our HR department collaborates closely with all departments, including ground-based workers, to

support new and existing employees. We have launched attractive incentive schemes and comprehensive training programs to ensure we remain the air cargo partner of choice as well as the employer of choice.

**Focus:** How has Etihad Cargo approached port congestion issues?

**Drew:** Port congestion issues have contributed to increased air cargo demand. Manufacturers opted to move goods by air to reduce delays and keep their orders on schedule. We have begun transporting products that we have never carried before, such as tires. Our approach to meeting this increased demand has been to remain agile and open to finding new solutions for partners and customers. We have added capacity where required. While providing additional capacity is more of a challenge with the return of passenger demand, we are continuously exploring ways to ensure we meet capacity requirements.

**Focus:** Does Etihad Cargo have plans to expand its freighter fleet?

**Drew:** Our current fleet comprises five Boeing 777 freighters, seven Boeing 777s, 40 Boeing 787s, 14 Airbus A320s, and five Airbus A350s, with more 787s joining the fleet in 2022.

To expand our freighter fleet and ensure we continue to meet our customers' capacity requirements, Etihad Airways firmed up its Airbus order for seven new-generation A350Fs.



► From the Top: Martin Drew, Senior Vice President Global Sales & Cargo, Etihad Aviation Group.

The freighters will upgrade Etihad's freight capacity by deploying the most efficient cargo aircraft available in the market. With a 109-tonne payload capability, the aircraft features a large main deck cargo door, with its fuselage length and capacity, optimized around the industry's standard pallets and containers.

More than 70% of the A350F airframe is made of advanced materials, resulting in a 30-tonne lighter take-off weight. The A350F generates at least 20% lower fuel consumption and emissions over its current closest competitor, supporting Etihad's pledge to reach net zero emissions by 2050.

**Focus:** Has Etihad Cargo considered adding converted freighters to its fleet?

**Drew:** Etihad Cargo, in partnership with Etihad Engineering, is currently exploring additional capacity through the complete conversion of Boeing 777s. More announcements on this will be made in due course.

**Focus:** What are Etihad Cargo's plans for future sustainability?

**Drew:** Etihad Cargo is committed to acting in line with Etihad Aviation Group's pledge to achieve net-zero emissions by 2050. We are developing a dedicated sustainability strategy for cargo operations that will be announced in due course.

As our latest step in making the transportation of pharmaceuticals more sustainable, Etihad Cargo entered into a memorandum of understanding (MOU) with B Medical Systems to develop and launch the world's first airline-specific passive temperature-controlled container. The containers, which utilize passive cooling technology, retain temperatures from -80 to 25 degrees Celsius for up to five days without requiring an external power source and offers load capabilities ranging from two to 1,500 liters.

Through the reduction in power needed to maintain temperature-sensitive pharmaceutical shipments, these units will significantly reduce carbon emissions. Trials of the sustainable container units will commence shortly, and a commercial launch date will be announced following the successful completion of the trials.

We also replaced 3,000 containers from our original aluminum unit load device (ULD) fleet with environmentally friendly lightweight versions. On the average wide-bodied flight, utilization of these lighter ULDs can provide a weight-saving of over 200 kilograms, that will lower fuel consumption and CO2 emissions. We will continue to explore and launch programs and initiatives as part of our commitment to continuous improvement and

creating a more sustainable future for us, our customers, the industry, and the world.

**Focus:** The premium offerings by Etihad Cargo are quite extensive and specialized, ranging from valuable art and vehicles to horses. What makes your team so versatile and knowledgeable?

**Drew:** To ensure Etihad Cargo's team is versatile and knowledgeable, we appointed specialized, dedicated product managers and teams to enhance the delivery of our eight-strong premium product range. Each of these products receives specialized services to ensure their product is delivered with the highest industry standards.

In addition to ensuring the solutions, Etihad Cargo offers are fully compliant with international regulations and guidelines. We prioritize continuous improvement to evolve and enhance the services we offer our customers.

**Focus:** Please provide an overview of Etihad Cargo's premium cargo products growth.

**Drew:** We have witnessed growth across several Etihad Cargo premium products, which we attribute to the introduction of new features and solutions, enabling Etihad Cargo to provide customers with exemplary services for safe and efficient transportation of air cargo. For example, demand for Etihad Cargo's CEIV Pharma-certified, dedicated pharmaceutical shipment solution, PharmaLife, increased by 46% in the first six months of 2022. Other new solutions we launched in 2022, included the expansion of our dry ice capabilities and the introduction of improved thermal covers that dramatically increased the protection of pharmaceutical cargo during aircraft loading and off-loading.

As the national carrier to the UAE, Etihad Cargo played an integral role in facilitating the transportation of key medication to the country. We collaborated with the Abu Dhabi Department of Health, Rated, and global innovative biopharmaceutical company GlaxoSmithKline (GSK) to bring the world's first shipment of Sotrovimab, an anti-viral treatment for COVID-19, to Abu Dhabi. We also carried the first AstraZeneca's Evusheld medication in 2021, making the UAE one of the first countries globally to receive the long-acting antibody medication, marking an important milestone for healthcare, logistics, and supply chain entities that continue to contribute to the evolution of Abu Dhabi's medical sector.

Etihad Cargo's CEIV Live Animals-certified products, LiveAnimals and SkyStables, have also tracked year-on-year performance increases. We have achieved a 52% increase in the movement of live animals, and the performance of SkyStables



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► From the Top: Martin Drew, Senior Vice President Global Sales & Cargo, Etihad Aviation Group.

increased by 137% compared to H1 2021. We continue to provide safe and secure transportation solutions for Etihad Cargo's customers' high-value cargo. Compared to H1 2021, revenue from FlyCulture, a tailored service for the transportation of valuable paintings, sculptures, and musical instruments, increased by 128%.

**Focus:** Etihad Cargo recently enhanced its road feeder services in the US. How will customers benefit from this network improvement? Since trucking is viewed uniquely by each country, what US challenges have been noted?

**Drew:** To offer customers and partners seamless road connectivity, Etihad Cargo offers an extensive network of road feeder service providers in the USA and globally. Etihad Cargo's largest networks operate in key markets across Europe, North America and our UAE home market, with extensions across the entire GCC region. To illustrate the importance of trucking networks to Etihad Cargo's operations and the scale of trucking routes, we operate 40 trucks daily between our home base in Abu Dhabi and Dubai. Multiply that number by all of the countries in which Etihad Cargo operates, and you get an idea of how extensive this trucking network is and how frequently trucks are used.

Etihad Cargo also operates smaller networks in countries such as Australia, China, and India. Etihad Cargo hand-picks road feeder service providers to offer seamless road connectivity and further enhance our operations. These networks provide maximum coverage to Etihad Cargo's customers, wherever they are located, while maintaining robust service delivery, even at offline stations.

We utilize trusted road service feeder providers to expand our global capabilities and to enable Etihad Cargo's customers to benefit from various logistics solutions. These include dedicated capacity and 24-hour personalized customer service, ensuring we can continue to meet our service delivery promises. Etihad Cargo carefully selects RFS providers, only engaging with partners that offer the right expertise and equipment, to ensure that cargo is delivered on time and customers continue to receive the exceptional service quality to which they have become accustomed.

Most of the challenges we experienced were during the height of the pandemic. Lockdowns and restrictions caused some disruption. However, Etihad Cargo selects our partners based on their strong networks and connectivity. We have worked closely with RFS providers to mitigate disruption risks, evaluating the situation constantly to ensure we can respond proactively and continue providing the best service.

**Focus:** The Etihad Cargo fleet consists of B777 freighters,

belly capacity on the passenger fleet and extensive trucking services. What approaches are employed to coordinate and maximize network capacity?

**Drew:** To coordinate and maximize network capacity across our existing network, Etihad Cargo monitors every step of the cargo's journey via our state-of-the-art Cargo Control Centre, located at our Abu Dhabi hub. Over the past two years, Etihad Cargo worked closely with its customers to add capacity to ensure connectivity on the key trade lanes by increasing our freighter utilization up to 16.5 hours, introducing cabin loading and continuously adapting the network to support the demand flows.

This year, with the return of passenger flows, we have reconfigured our network increasing frequencies across key trade routes. While we will continue to operate Etihad Cargo's Boeing 777 freighter network with flights across Chicago, Dhaka, Frankfurt, Hanoi, Ho Chi Minh City, Hong Kong, Johannesburg, Nairobi, Milan, Riyadh, and Shanghai, we will also benefit from additional passenger flights on our Boeing 787 and Airbus 350 with 35 direct flights to London Heathrow, seven direct flights to Bangkok and five flights to Bangkok via Phuket.

Etihad will offer daily flights to Dublin, Singapore, and Kuala Lumpur. Additionally, more weekly flights to Barcelona, Brussels, Johannesburg, Madrid, Tokyo, and Vienna have been added to our summer schedule, and more passenger flights have been introduced to the network with the addition of seasonal routes to Greece, France, Spain, and Tanzania.

**Focus:** How has Cargo iQ recertification and its stringent airline member requirements improved the core of Etihad's Cargo Service Delivery and Performance Management?

**Drew:** The Cargo iQ recertification and its stringent airline member requirements are at the core of Etihad Cargo's Service Delivery and Performance Management. Etihad Cargo is a member of a collaborative, multi-stakeholder community that works towards continuously improving the air cargo customer experience. Cargo iQ provides the industry a Quality Management System for service delivery, real-time end-to-end transparency, planning, execution, shipment evaluation, and standards and practices that facilitate the ever-evolving business models and needs.

Etihad Cargo's efforts toward meeting, providing, and exceeding customer needs and requirements are fully compliant and aligned with global industry standards that promote harmony, transparency, and industry-wide best practices.

As a result, in H1 2022, Etihad Cargo maintained a strong Delivered as Promised rate of 86%, a 2% increase compared to its 2021 full-year results, along with an 83% freighter On-Time-





ULD Loading. Courtesy of Etihad Cargo.

Performance (OTP) rate despite the challenging handling environment across the network.

**Focus:** What kind of partners are invited to join Etihad's Global Preferred Handling Partner program?

**Drew:** Etihad Cargo has strategic partnerships with ground handling agents, which we are continuously developing. Our partners include WFS, dnata, Swissport, and Menzies, among others. When it comes to supplier selection, Etihad Cargo assesses each vendor based on the same criteria for each station, regardless of whether the vendors are local or global providers.

**Focus:** To reduce pharma shipment's carbon footprint by 50%, Etihad employs SkyCell hybrid ULDs. Escalating data-point shipment factors also exemplifies Etihad Cargo's understanding of the internet of things (IoT). What other technical examples can you share with our readers?

**Drew:** Etihad Cargo has entered into Master Lease Agreements with five global packaging suppliers, including CSafe Global, Dokasch, Envirotainer, SkyCell, and Va Q Tec. While each supplier has a unique approach toward CSR and sustainability, each company aligns with Etihad Cargo's vision of reducing the carbon footprint of pharmaceutical shipments via our PharmaLife product.

In addition to offering a reduction in CO2 emissions and pollution, the containers we use for the transportation of pharmaceuticals are reusable, enabling us to play our part in creating a more sustainable pharmaceutical cold chain.

Beyond sustainability, we are committed to the use of data to facilitate the safe and efficient transportation of pharmaceu-

ticals around the world, utilizing technology to ensure Etihad Cargo transports are fully traceable and trackable. This has enabled us to simplify interactions with our customers and continue to provide them with a seamless end-to-end experience during all touchpoints throughout their cargo's journey.

Another example of Etihad Cargo utilizing data to enhance the delivery of shipments was the launch of Pharma Corridor 2.0 — a project that illustrates the importance of data to the future of airports. Key data measures location, temperature conditions, weather forecasts, and speed is still, in many cases, recorded on a local level manually, making it difficult to share among all stakeholders. This makes tracking pharmaceutical cargo as it passes through the operations and handling processes incredibly challenging, as there is a lack of transparency and connectivity, which still results in broken or scattered information flow from an end-to-end perspective.

Pharma Corridor 2.0 provides the highest levels of handling quality assurance for pharmaceutical shippers and forwarders through the establishment of pharma corridors between airports with cargo handling communities certified under the CEIV Pharma program. These pharma corridors offer full transparency on the status of temperature-controlled pharmaceutical shipments, recording quality, time, temperature, potential deviations, and actions. Reliable data, and the ability to freely share this data, will enable every stakeholder to track shipments in real-time and react dynamically as and when required.

**Focus:** As EU destinations are disrupted, which regions show the most growth?

**Drew:** In terms of regions that show the most growth potential, Asia continues to be our largest market, accounting for 70% of our overall operations.

► From the Top: Martin Drew, Senior Vice President Global Sales & Cargo, Etihad Aviation Group.

China remains a key market for Etihad Cargo and comprises over 20% to Etihad Cargo's total operations. In H1 2022, Etihad Cargo launched a Mandarin version of its website and booking portal, becoming the first Middle Eastern airline to launch a dedicated Mandarin website and cementing our strategic footprint in China. The Mandarin website and booking portal provide key features for our Chinese customers, including product information, station capabilities, feedback and claims. Since the launch of our new user-friendly platform, we have achieved an increase in usage and adoption. In H1 2022, 99.2% of all China's bookings were made via the online portal, up from 94% at the end of 2021.

We continue to invest in India, as it is one of our top perishable markets. If we look back to 2021, India's fresh exports ranked as Etihad Cargo's fourth largest market, with increased shipment volumes of over 40%.

The fresh produce product group makes up almost 70% of all exports transported by Etihad Cargo. In 2021, we witnessed a 383% year-on-year growth for our CEIV Fresh-certified FreshForward product, which is dedicated to the safe transportation of fresh produce.

To address the increased demand for cargo in India, Etihad Cargo continues to add capacity to key destinations. We offer daily flights to Mumbai, Delhi, Ahmedabad, Bangalore, Hyderabad, and Kochi, Kerala. We are working closely with our customers and partners to simplify the booking process via Etihad Cargo's enhanced booking portal. India represents the second-highest country in terms of booking numbers and ranks first in terms of portal adoption.

**Focus:** Etihad's market growth is a reflection of the airline's proactive cargo program. Where do you see the air cargo industry in three years?

**Drew:** We are cautiously optimistic about the outlook for the air cargo industry over the next three years. Looking toward next year, although demand has softened in the first half of 2022 compared to 2021, and GDP forecasts have been adjusted downwards for the remainder of the year and 2023, the sector is still projected to grow and continue to outpace pre-pandemic levels.

2023 will likely see a reduction in capacity constraints, especially out of the Asia Pacific region. With more belly-hold capacity returning to the market, we can expect to see some softening of global yield levels. However, a full return to pre-pandemic levels will take more time, with a significant imbalance between strong demand and available supply in key cargo origin markets, such as the Asia Pacific region, and a relatively high share of freighter capacity continuing to demand higher yields.

Looking ahead, the air cargo market is expected to reach close to \$100 billion by 2025 at a CAGR of 11%, according to The Business Research Company's Air Cargo Services Global Market Report. This indicates that while the sector faces challenges, demand for air cargo capacity will continue to grow. Traders will continue to utilize air freight solutions to avoid supply chain disruption, and to ensure that stock and goods are delivered on time.

## About Etihad Cargo

Etihad Cargo has elevated cargo operations to be the Air Cargo Partner of Choice.

Etihad Cargo's initiatives aim to elevate customer experiences and increase operational efficiency through the digitalization of operations and personalization of customer experiences. The airline offers customers access to a large network of chartered and scheduled services to Europe, North & South America, Asia, Australia, the Middle East, the Indian Subcontinent and Africa using passenger aircraft and cargo-only freighters.

Etihad Cargo focuses on taking our customer's business further with a firm commitment to provide convenient cargo solutions, creating dedicated services and products focused on their specific requirements. Etihad Cargo's special products and services include SkyStables (Equine) and LiveAnimals (IATA CEIV Animals certified), PharmaLife (IATA CEIV Pharma certified), FreshForward (IATA CEIV Fresh certified), FlightValet (Automobile), AirMail (Mail and eCommerce), SafeGuard and FlyCulture (Vulnerables).

Etihad Cargo is a founding partner in the HOPE Consortium contributing to a complete supply chain solution to address COVID 19 vaccine logistics and facilitate vaccine availability across the world.



**Note:** For information please visit: <https://www.etihadcargo.com>



# Environmental Sustainability in Aviation Finance

James Collins, Stephenson Harwood LLP



James Collins

## Understanding Sustainability

One cannot understate the importance of environmental sustainability to commercial aviation. It is a topic that permeates almost every layer of the sector and has started to shape many of the industry's key players including how OEMs, sup-

pliers and operators see the future of their businesses and engage with their customers. Financial institutions active in supporting the industry are also acutely aware of the issues and the opportunities these developments present. Still, the availability and use of green and sustainability-linked finance products remains limited, compared with other industries.

In an earlier article written for the CNS Summer edition, we considered the background to environmental reform in the commercial aviation sector. In this article, we will look in more detail at some of the recent developments affecting the flow of debt capital into sustainability projects.

## The Key Challenge

For most transportation banks active in the aviation sector, the threat of greenwashing, the practice of providing misleading information as to the environmental credentials of a project or initiative, casts a heavy shadow over the use of green and sustainability-linked financing products. Banks are understandably cautious as to the unintended consequences of labelling a project as being green or sustainable where such categorization could later be challenged, or worse, litigated against.

The question of whether the financing of aircraft, or giving financing support to commercial airlines could really ever be green, remains open for many participants. Given the important role that private finance is expected to play in supporting the transition of the aviation industry towards a more sustainable future, the threat of greenwashing needs to be overcome. Though we remain behind our peers in other sectors, such as maritime, progress is being made in this regard through a combination of market-led and regulatory developments.

## Market-led Principles

The use of market-led criteria for the categorization of green investments is nothing new. In project finance for example, the Equator Principles has long served as a common baseline and a risk management framework helping financiers to assess and manage environmental and social risks when financing new projects. Over 130 financial institutions across 38 countries have now officially adopted these principles.

Turning to the field of asset financing, the maritime sector has adopted the Poseidon Principles. These tenets give the 29 participating banks, which together represent over 50% of the global ship finance portfolio, a framework for assessing and disclosing whether their portfolios are in line with industry climate goals.

Participating members of both the Equator Principles and the Poseidon Principles are also actively involved in the financing of aircraft assets. The slow adoption of green and sustainability-linked finance products in the aviation sector is perhaps less a question of limited investor appetite than it is an issue of means. The establishment of clear industry metrics and monitoring frameworks has done much to promote the green transition in other industries. Therefore, it is reasonable to expect a similar boost to our industry once our own framework is in place.

There have been some encouraging recent market-led initiatives to address this issue in the aviation sector. Over the past year, two groups of financiers have come together with the stated aim of creating an industry framework that gives financiers and other investors the confidence to assess the environmental credentials of proposed projects against the industry's ambitious decarbonization objectives. The framework is comprised of two groups: IMPACT, a collection of leading banks, leasing companies and other investors; Aviation Climate-Aligned Finance Working Group (CAF), six leading transportation banks that have expressed a desire to apply their learnings from the Poseidon Principles to the aviation sector. To achieve these goals, industry-aligned metrics and calculation methodologies will need to be determined and agreed upon. The absence of clear, verifiable data has long been a thorn in the side of progress in this market sector.

Efforts to plug the data gap, at least insofar as tracking CO2 emissions per available seat kilometer (ASK), have been made by industry analysts; these include the Platform for Analysing

Carbon Emissions (PACE) and IBA's NetZero calculator. These platforms have been established to track and process airline flight data in order to provide reliable CO2 information for investors to model and report on their portfolios. The development of these tools has been well received in the leasing and financing communities, but ongoing uncertainty and the spectre of greenwashing in the current market are still nonetheless a negative for many investors.

## Regulatory Reform

In Europe, a lot of attention has been given to the EU Taxonomy Regulation (the Regulation). While many within the industry would welcome an international scheme, Europe is for now taking the lead in this area.

The Regulation is intended to prevent greenwashing by providing clear and consistent criteria by which investments can be determined to be environmentally sustainable. The Regulation is not specifically targeted at aviation, but given the scale of greenhouse gas emissions (GHGs) produced by the industry, work has been undertaken to bring aviation within the scope of the Regulation.

As a first step, the European Commission (EC) appointed Steer, a consultancy, to prepare a report on proposed methodologies for determining environmentally sustainable investments into the aviation sector. The Report, Sustainable finance taxonomy for the aviation sector, was published in February 2021 and identified four sectors that should be considered for inclusion:

1. **Aircraft related:** air transport (passenger and freighter), manufacturing, maintenance and technology development.
2. **Fuel production, storage and distribution:** sustainable aviation fuels (SAF).
3. **Air traffic management (ATM).**
4. **Airport related:** airport operations, ground handling and construction of airport infrastructure.

To qualify for inclusion in the Regulation, the Report noted that any such activity would need to make a substantial contribution to one or more of the six objectives of the Regulation; most relevant amongst which are climate change mitigation and pollution prevention and control.

The activity would also need, among other things, to comply with technical screening criteria (TSC) established by the EC. The Report also set out proposals for developing such TSCs in the context of climate change mitigation, which are summarized below, and pollution prevention and control.

The class of activities which the Report identifies as low-carbon activity is more or less limited to the sale, lease or operation of aircraft powered by clean fuels, such as electric batteries or hydrogen fuel cells, or advanced biofuels. While current progress on these technologies is encouraging, the expectation is that clean fuels will not be available at scale

before 2030 and even then adoption is likely to be limited to the short-haul sector; the integration of SAF is perhaps more encouraging but a significant investment needs to be made to upscale production, distribution and deployment across the global fleet.

Transition activities have been more difficult to determine given the complexities of aircraft equipment and pace of change in technologies. The Report however proposed that investment in aircraft which use fossil fuels but which represent the best technology available at a given time (as determined by ICAO CO2 type certification standards, which differ between broad aircraft types) should qualify. It should be noted that as technology improves, acceptable emissions levels will fall. There has been some concern within the industry of the Report's proposal as to the best technology available. The Aviation Working Group has for example queried both the impact that this would have on re-fleeting exercises where more carbon efficient aircraft are swapped into an operator's fleet but which are not best in class and also the difference in emissions between aircraft types falling within the same broad ICAO bands.

Draft TSC have since been published by the European Commission for consultation and delegated legislation was expected in early 2022, but has not yet gone live. While the need for a clear framework in this area is self-evident, the hope is that such a framework will allow sufficient flexibility and incentivize financiers and other investors to support the transition to a greener future in a practical way.

## In Conclusion

The aviation industry has made significant progress over the past two years in moving towards a more sustainable future in line with ambitious industry goals and the targets set out by The Paris Agreement. To accelerate the transition, the finance community at large will require clear frameworks and criteria to monitor their portfolios and the environmental performance of financed assets, whether by way of market-led principles or regulation. Settling on the methods to prevent greenwashing remains key, but those methods will need to be practically workable to have the desired effect.

## About the Authors

James Collins is a partner in Stephenson Harwood LLP's aviation group. A recognized expert in the sector among the top legal directories, Collins has a strong reputation for delivering commercially astute and solution-driven legal advice across a broad spectrum of asset-backed transactions. GeonSik Kang is an associate in the firm's aviation group. He has a particular focus on helping leasing companies and operators lease and manage their aircraft assets.



Note: For information please visit: <https://www.shlegal.com>



# From the Top: Vaughn Moore

## Executive Chairman and CEO AIT Worldwide Logistics

by Alexis Dames



Vaughn Moore

### About Vaughn Moore

Vaughn Moore became an owner of AIT Worldwide Logistics in 2012 after leading his team in executing a friendly leveraged buyout of the company. As a leader in the global community of logistics professionals, Moore has been lending an influential voice through his service on the World Freight Alliance's Board of Directors since 2013.

Moore gives back to the community as a member of the Board of Directors for The Center for Enriched Living and the Executive Committee for the Chicago Select Golf Invitational. He is also a WGA Director for the Western Golf Association's Evans Scholars Foundation and he serves as an at-large member on the Executive Board of Directors for the Rams Club at University of North Carolina.

### Focus: How would you define AIT's 2022 performance?

**Moore:** Invariably, each company met with similar supply chain challenges. I choose to define AIT's team performance as astounding, remarkable, humbling, rewarding, and validating. Every single day, our teammates embody AIT's core values through their actions on the job and I am thankful to work with such an outstanding group of individuals.

### Focus: In 2021, the transport sector faced many challenges. AIT's gross revenue was nearly \$2.5 billion. What strategies were employed to achieve this level of growth?

**Moore:** In 2022, we expect gross revenue to approach \$3 billion. Our growth is the result of following our strategy over the course of many years. Our masterplan includes expanding geographically, building best-in-class vertical markets and applying core values to everything we do. Though most of our growth over the past 18 months has been organic, we have also completed successful strategic acquisitions.

### Focus: What criteria do you follow when selecting industry partners?

**Moore:** We always try to lead with culture – making sure that people from all parties are treated with dignity and respect. Frankly, that applies to selecting partners as well as targeting companies for acquisition.

Beyond that, our core carrier strategy embraces comprehensive selection criteria that includes matching capacity with key trade lanes and clients, rigorous quality and service approach based on mutually agreed metrics, and alignment with AIT's global quality management system. It's also critical that our partners have a variety of sector-related capabilities to support our life sciences, high value, food logistics, and other special services at the highest level.

### Focus: How important is an organization's culture? How does AIT build and nurture its culture?

**Moore:** For us, it is everything and paramount to who we are as a company. Culture also sets the tone from a performance standpoint. We are unique as a company because we measure our core value performance on an annual basis via our



Newly constructed AIT facility in Los Angeles. Photo courtesy AIT Worldwide Logistics.

core value index survey. I firmly believe that a strong culture is the one constant that gets you through difficult times and our resilience during the COVID-19 pandemic is proof of that.

**Focus:** How do you ensure compliance and auditability of the companies you acquire?

**Moore:** We perform financial due diligence on all acquired companies to ensure that we can rely on their systems and information provided. In most cases, we engage third party consultants to assist in performing financial diligence including financial and tax reporting.

We must be able to rely on the financial data to properly manage the business post-transaction and maintain confidence with our various stakeholders. If we think a company's financial information is unreliable, we won't execute the transaction.

Of course, acquisitions also involve many additional diligence work streams including legal, compliance, environmental, human resources and more.

**Focus:** What technologies do onboarding companies need to adopt?

**Moore:** Once a company is acquired, our goal is to integrate all aspects of their IT infrastructure and data security into our

standards and policies within the first nine to 12 months. At a high level, this includes migrating all servers to AIT's cloud (which includes a full multi-region disaster recovery strategy), migrating to our cloud telephone/call center solution, utilizing our live 24/7 service desk, and adopting all our security tools and policies.

**Focus:** How does the FreightWaves' 2023 FreightTech Award recognize AIT's relationship with technology?

**Moore:** AIT is continually investing in technology to augment our commitment to quality and efficiency for our customers, and we appreciate FreightWaves' acknowledgement. More than 85% of our customer transactions are completely processed electronically. With the surging growth of our business, we could not manage that volume of transactions without the scalable systems and IT teammates who implement our strategy.

**Focus:** Which of your vertical markets perform best for air freight?

**Moore:** Our technology vertical market has the highest demand for capacity, followed by life sciences, healthcare, chemical and industrial sectors.



**Focus:** Which airlines have established relationships with AIT?

**Moore:** We consolidate approximately 80% of our cargo with AIT's core carrier group consisting of 11 partner airlines.

**Focus:** What sets AIT forwarding apart when it comes to global air freight service?

**Moore:** The key is ensuring high quality, speedy solutions. This is accomplished through our strategic locations in geographical regions that represent more than 90% of the world's gross domestic product. In other words, we are wherever our customers require us to be. Our North American network delivers true end-to-end solutions, providing our clients with a definitive speed-to-market advantage.

**Focus:** How does AIT's China office network benefit AIT's customers in other regions?

**Moore:** AIT's growth in Asia has been exponential and it's fueled by our strength in China, including our robust transpacific trade lanes. The AIT-Asia team does an outstanding job with capacity management and expanding solutions for clients in both the commercial and charter space.



AIT Life Sciences Charter Ireland to US. Photo courtesy AIT Worldwide.

Customers continue to adjust manufacturing demand to other countries in southeast Asia and we continue to expand our scope of services to align with their sourcing strategies. As a result of these trends, we expect continued growth in Vietnam, Thailand and Malaysia.

**Focus:** What percentage of revenue does eCommerce represent for AIT's operation?

**Moore:** Consumer retail, including eCommerce, is about 25-30% of gross revenues. The majority of AIT's consumer retail vertical is its final-mile residential delivery.

**Focus:** AIT is part of the Civil Reserve Air Fleet. How does working with government customers differ from commercial operations?

**Moore:** Government assignments are dramatically different as everything moving through government verticals is mission critical for boots on the ground in overseas locations.

We support all branches of the U.S. military, NATO allies and other friendly countries with critical time-sensitive shipments needed to sustain their operations. These shipments are tremendously complex, especially when dealing with international import and export regulations and/or restrictions. It takes a knowledgeable, experienced creative team of experts to efficiently move shipments and ensure timely delivery of goods for military personnel.

**Focus:** Mergers and acquisitions are both challenging and time-consuming. How are AIT teams trained and managed to handle these legal and financial negotiations?

**Moore:** We have a dedicated team that manages everything including legal, compliance, operations, sales, IT and more. They cover everything that's required to execute a smooth transition for recently acquired companies.

**Focus:** How did you build a recession-proof operation?

**Moore:** For us, it's all about diversifying the account base. One of the most important ways we've diversified has been by investing in expertise and resources to support key vertical markets. The automotive, consumer retail, food, government, healthcare, industrial, life sciences and technology industries are not just critical to the economy – they also have unique supply chains that require special services. No single client or industry dominates AIT's business, so if there's a soft cycle, it doesn't affect the whole.

› From the Top: Vaughn Moore, CEO, AIT Worldwide Logistics.

**Focus:** What can we expect from AIT over the next three to five years?

**Moore:** AIT will continue to execute our long-term strategic vision by supplementing continued organic growth with targeted acquisitions. AIT will have a material impact on the industry via what we achieve in terms of scale, scope and size.

**Focus:** What lessons would you impart to the next generation of logistics leaders?

**Moore:** Do not limit yourself to your industry achievements from the past. Instead, be open-minded to creating new achievements, new partnerships and new avenues for success. Worldwide, logistics touches every other industry. Keep this in mind and use it as motivation to lean into the important role that logistics occupies in boosting the quality of life for people around the world.

**About AIT Worldwide Logistics**

AIT Worldwide Logistics is a global freight forwarder that helps companies grow by expanding access to markets all over the world where they can sell and/or procure their raw materials, components and finished goods. For more than 40 years, the

Chicago-based supply chain solutions leader has relied on a consultative approach to build a global network and trusted partnerships in nearly every industry, including aerospace, automotive, consumer retail, food, government, healthcare, high-tech, industrial and life sciences. Backed by scalable, user-friendly technology, AIT's flexible business model customizes door-to-door deliveries via sea, air, ground and rail — on time and on budget. With expert teammates staffing more than 100 worldwide locations in Asia, Europe and North America, AIT's full-service options also include customs clearance, warehouse management and white glove services. Learn more at [www.aitworldwide.com](http://www.aitworldwide.com).



**NOTE:** For additional information, please visit: [www.aitworldwide.com](http://www.aitworldwide.com)



AIT Branded Truck. Photo courtesy AIT Worldwide Logistics.



# Avianca Cargo

## First CEIV Fresh Certified Airline in the Americas

by Alexis Dames

Recently, the staff at FOCUS had the opportunity to converse with Gabriel Oliva, Avianca Cargo CEO, about the carrier's latest announcement of achieving CEIV Fresh certification. CEIV Fresh is an IATA program that provides organizations with the opportunity to become a center of excellence for perishable logistics. The following interview reflects Oliva's thoughts in regard to the CEIV announcement.

**Focus:** Avianca is one of 26 companies, and the first airline in the Americas to be certified CEIV Fresh. What prompted the airline to pursue the IATA certification and what cargo does this represent for Avianca Cargo?

**Oliva:** Avianca Cargo is a leader in perishable transport in the region. It represents more than 50% of Avianca's transported cargo, including flowers from Colombia, Ecuador and other perishables such as fruit, vegetables, fish, and meat from Chile, Peru, and Argentina.

We are successfully transforming our company. We strive to operate with the highest standards in all aspects of our business and provide the best service available to our customers. The CEIV certification is proof of having the best quality processes in perishable transportation. This is one of the many milestones to go one step ahead and lead through service, quality, and innovation and continue pushing boundaries.

**Focus:** What infrastructure was required to comply with the certification and what changes in perishable processing were initiated by CEIV Fresh?

**Oliva:** The required temperature-controlled infrastructure will depend on the perishables that are handled, and the weather conditions of the stations where we operate. In Avianca, we have invested in having top-of-the-line infrastructure by renewing our cooling rooms, not just to comply with CEIV but also to contribute to environmental measures.

Our recent experience with CEIV Pharma program certification included the use of temperature sensors, packaging, load assembly, and handling times that were already in place. The Fresh program allowed us to internally review our procedures, and improve our communication channels and CAPAs (Corrective and Preventive Actions) to continue offering a strong service and add more value to our customers.



Gabriel Oliva

**Focus:** What CEIV practices has Avianca Cargo implemented and adopted to ensure appropriate temperature-controlled transport from the tarmac to ground storage?

**Oliva:** We implemented practices such as risk analysis, maximum control times (when perishables are exposed to non-controlled temperature areas and thermal solutions depending on the products).

Temperature mapping in the control zones, qualification of the routes for which we offer the product, and audit programs for each ground process. These practices are considered the most beneficial to reach our goal of total product quality.

**Focus:** How does Avianca Cargo ensure data integrity throughout key touchpoints?

**Oliva:** Our temperature measurements are supported at each critical point starting with product acceptance. We measure temperature information from our thermometers and capture it in the Cargo Management System. We use this information as a traceability record. TIVE and XSense Data loggers are used to cross-check the temperature records and trigger alerts when there is a deviation; this helps us secure the cold chain and is critical whenever we need to do a CAPA analysis.

**Focus:** Which areas of operations will improve by certification and how are these improvements translated to the customer experience?

**Oliva:** All our processes have improved after the CEIV Fresh certification. Our teams have received specific perishable training. For example, our Booking Center team knows about temperature-controlled service offering our customers more efficient and complete information. Acceptance, storage, and buildup processes have been expedited to prevent temperature deviation, and ramp handling by controlling maximum ramp time, and finally, breakdown and clearance processes have been synchronized to deliver each shipment in optimal condition.



CEIV Fresh Certificate Presentation. From Left to right: Ralph Cutie, Laura Pullins, Gabriel Oliva, Peter Cerda. Photo courtesy of Avianca Cargo.

For our customers, the certification required us to implement a Quality Management System for perishable shipments. This covers a specific process to ensure that client communication as well as all the participants in the perishable supply chain is effective. When everyone is aligned with the same standards it is easier to harmonize activities and assign responsibilities with each stakeholder.

**Focus:** How do the newly onboarded CEIV practices help reduce waste and how does it help improve overall sustainability at Avianca Cargo?

**Oliva:** Our goals include delivering perishable shipments under the best conditions so our customers can compete with the greatest freshness and quality. By applying and ensuring proper handling throughout the cold chain we will be able to prevent product damage and reduce waste. This allows us to have traceability, facts, and numbers to develop strategies that contribute to our sustainability goals in terms of social and environmental impact.

**Focus:** Please share some of the regional growth that is being considered in Avianca Cargo's expansion plans.

**Oliva:** In 2022 as one of the leaders in the region, we grew more than 30% our operation from North America to South America Long Haul vs 2021. As part of that growth strategy, we will expand our capacity up to 70% with the incorporation of new A330 aircraft through 2024. We will continue strengthening our presence and market share in North America,

Europe and South America by offering our customers a robust service and more capacity not only by airfreight but land transportation.

**The essential link between IATA and Avianca Cargo during the CEIV Fresh certification process was Ronald Schaefer, Senior Principal at IATA Consulting. With Ronald's guidance, the carrier was able to prepare and undertake each step efficiently. We had the opportunity to speak with Schaefer and learn more about the CEIV Fresh certification process and Avianca Cargo's specific journey.**

**Focus:** What percentage of air cargo does the transport of perishables represent?

**Schaefer:** Perishable cargo is a general category of air freight that refers to time-sensitive agro-food products and horticultural products such as seafood, meat, fruits, dairy, vegetables and cut flowers. Over the past years, global demand grew for premium perishables, especially from the Americas, EMEA and Asia Pacific. Global consumption for the fruits and vegetables segment is expected to reach 4.8 trillion euro in 2030. Asia and Oceania will be the main drivers behind this growth.

In order to ensure that perishables are transported in such a way that they arrive in a fresh state at the consumer end of the transportation chain, the cold chain must be maintained throughout. 40% of the food produced on a global level currently requires refrigeration. Additionally, 360 million tons a year are lost due to incomplete or unaligned cold chains.





Ronald Schaefer

**Focus:** What are IATA's goals for developing the CEIV Fresh program?

**Schaefer:** The logistics of transporting fresh produce is complex. Supply chain members must seamlessly work together so that produce arrives to the end consumer in perfect condition. Supply chain members must take into account packaging, temperature, humidity, and other factors to ensure the produce stays fresh and intact.

While the industry welcomes the focus on higher standards, the increasing number of regulations around the world is becoming a problem. Implementation and compliance is complex as airlines, GHAs and forwarders are subjected to multiple audits for handling and transportation. In the past, there was no global certification for the handling of perishable products. Shippers need compliance, standardization, accountability and transparency across the supply chain. Shippers also need the confidence that facilities are adequately equipped and operated by properly-trained people familiar with the latest regulations. Shippers require a global certification and a common audit format to maximize efficiency. Finally, they need to easily identify the stakeholders who meet all these requirements.

**Focus:** How did CEIV Fresh Certification improve Avianca's transportation of its perishables?

**Schaefer:** To obtain CEIV Fresh Certification, airlines must demonstrate that their operations, facilities and staff meet set and required standards. In turn, this allows airlines to promote best practices for the shippers' community as well as protect and grow their revenues in this burgeoning perishable, premium market. Prior to the CEIV Fresh program, there were no alternatives or changes available to the air cargo industry, in the movement of perishables and special cargo commodities.

**Focus:** How does CEIV Certification adapt to changing standards and regulations?

**Schaefer:** IATA meets regularly with industry stakeholders to discuss the latest trends and requirements within industry governance groups, then updates its standard publications, trainings and certification programs. The Perishable Cargo Working Group (PCWG) is a subgroup of the Live Animals and Perishables Board (LAPB). The objective of the PCWG is to provide recommendations to the LAPB on the development of perishable cargo transportation and handling standards.

These recommendations include:

- Propose new standards, or amendments to existing IATA industry standards, resolutions, including the perishable cargo regulations, recommended practices, and guidance material on effective handling and transportation techniques to ensure quality and integrity of healthcare cargo.



CEIV Fresh Logo near the empennage of an Avianca Cargo Airbus A330-243F. Photo Courtesy of Avianca Cargo.

- Propose training that relates to the above.
- Report regulatory developments affecting the handling and transportation of perishable cargo.
- Develop and promote sustainable practices aligned to the IATA sustainability framework and the United Nations Sustainable Development Goals (UN SDGs).

**Focus:** How has the CEIV Fresh process improved throughout the certification of the 26 participating companies?

**Schaefer:** Processes improve by introducing aligned and consistent standards across the cool chain. IATA and industry stakeholders are cooperating together to reduce waste. This should further increase the attractiveness of air cargo for shippers transporting perishables from Latin America to North America, Europe and Asia.

**Focus:** Briefly explain the steps taken by Avianca Cargo from day one to certification.

**Schaefer:** The process of an airline's CEIV Fresh certification has four phases beginning with the **preparation phase**. First, the airline assembles a detail team to carry out specific objectives requested by IATA. Duties include preparing the project's logistics, sending data and information requests and compiling an interview request sheet for the first visit.

The **training phase** is step two. At this point, the carrier staff had to attend the IATA Perishable Cargo Logistics Management course. This course is aimed at key personnel in the perishable air cargo logistics industry engaged in defining quality and risk management systems around the transport, and involves handling and time management of temperature-sensitive perishable shipments. Upon completing this course, staff will have the skills to: use IATA's Perishable Cargo Regulations (PCR); apply Hazard Analysis Critical Control Point (HACCP) methodology; and use IATA's CEIV (Center of Excellence for Independent Validators) manage Fresh audit checklist and implement it into their organization. Successful completion of the courses by at least 2 personnel per station is essential for certification.

The **assessment phase** is the third step that includes an on-site evaluation conducted by an independent validator.

An assessment versus the CEIV Fresh audit checklist is completed at this stage. The checklist comprises over 350 different items, from Quality management, personnel, training, documentation, infrastructure and equipment, operations, complaints and returns, supplier management, transportation

and self-inspections among others. Issues tackled are content from manuals and guidelines, procedures for audits, procedures for describing packaging systems, acceptance checklist quality and operating agreements, packaging requirements, documentation and labeling, acceptance and control, facilities and equipment, staff training requirements, training adequacy and currency just to name a few.

Once all findings are established, recommendations are communicated and the results are included in a comprehensive report and implementation plan. The company then starts working on closing the identified gaps.

Once the company feels comfortable that all gaps have been closed, it will enter the final phase, which is **validation**. During the validation, the independent validator will go through the checklist one more time and will review the progress made against recommendations during the assessment phase. At the end of validation, a decision is made on whether all requirements have been fulfilled. When all phases are satisfied, the airline is **certified CEIV Fresh**.

### About Avianca Cargo

Avianca Cargo is a leader in the region in the cargo movement and the principal in several markets across the Americas. Serving over 50 destinations with a cargo fleet of Airbus 330 freighter aircraft, in addition to belly operations in more than 100 Avianca passenger aircraft. In 2021, Avianca Cargo transported more than 500,000 tons in all its operating markets.

### About IATA

The International Air Transport Association (IATA) is the trade association for the world's airlines, representing some 290 airlines or 83% of total air traffic. IATA supports many areas of aviation activity and helps formulate industry policy on critical aviation issues.





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# CASSLink Update

The Modernization of an Industry Reference

By Alexis Dames



Alexis Dames

Cargo Network Services (CNS) has recently released its updated version of CASSLink for the United States air cargo market. CASSLink is the invoicing system for billings and payments between airlines and freight forwarders who participate in the Cargo Accounts Settlement System (CASS). To date, more than 102 airlines and 1245 freight forwarders use the CNS CASSLink.

The CASS system's modernization solution has been welcomed by industry stakeholders. "We surveyed the market about including additional features and incorporated them into the new CASSLink. The update is an efficient, secure, transparent and cost-effective solution for airlines, cargo agents and freight forwarders. We are excited to bring it to the US, the largest CASS market worldwide," said Laura Pullins, CNS President.

Since 2003, the CNS CASSLink has been a state-of-the-art industry solution. CASSLink has undergone an optimizing transformation including improvements and features such as a friendly multilingual user interface, a host of self-service options to configure data management and processing, new tax calculation mechanisms, risk assessment tools and convenient payment options. Additionally, users will benefit from time-saving features including real-time reporting, single-click global or regional access, online dispute resolutions and bilateral commercial arrangement accommodations. Each feature incorporates industry standard resolution requirements. CASSLink is also IATA One Record compliant, utilizing XML-based input and output capabilities. The new platform will also have the capability for more automation and integration with an organization's in-house system.

Many of the CASSLink back-office features were developed in collaboration with an experienced Global SaaS solutions provider to the travel industry and has been successfully launched by CNS in the United States with rollouts in other markets beginning in the fourth quarter of 2022 and continuing through 2023.

The steady growth of air cargo and the increasing complexity

of value chains has brought its share of challenges for airlines, freight forwarders and other players requiring improved settlement solutions and Air Waybill management. CASSLink has been modernized to meet the specific needs of the air cargo industry, which now finds itself in a unique position to influence global supply chains through the platform's features and improved payments solutions.

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*"The update is an efficient, secure, transparent and cost-effective solution for airlines, cargo agents and freight forwarders."*

**Laura Pullins, CNS President**

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CASSLink provides a trustworthy, modernized, easy-to-use, efficient platform that provides value to new or existing customers throughout their entire lifecycle. This is especially important for organizations who are embarking on a digital transformation journey and are looking to attract new customers.

For CNS' established industry partners and stakeholders, the importance of the CASSLink modernization is evident from the platform's data. By the end of 2021, CASS had processed transactions with an on-time settlement rate of 99.999% for hundreds of GSSAs (General Sales & Service Agents) and airlines.

The feature-rich, interoperable and efficient design of the new CASSLink, will enhance the reliability of the CASS system and scale to meet the billing and payment requirements of the air cargo value chain, today and in the future.

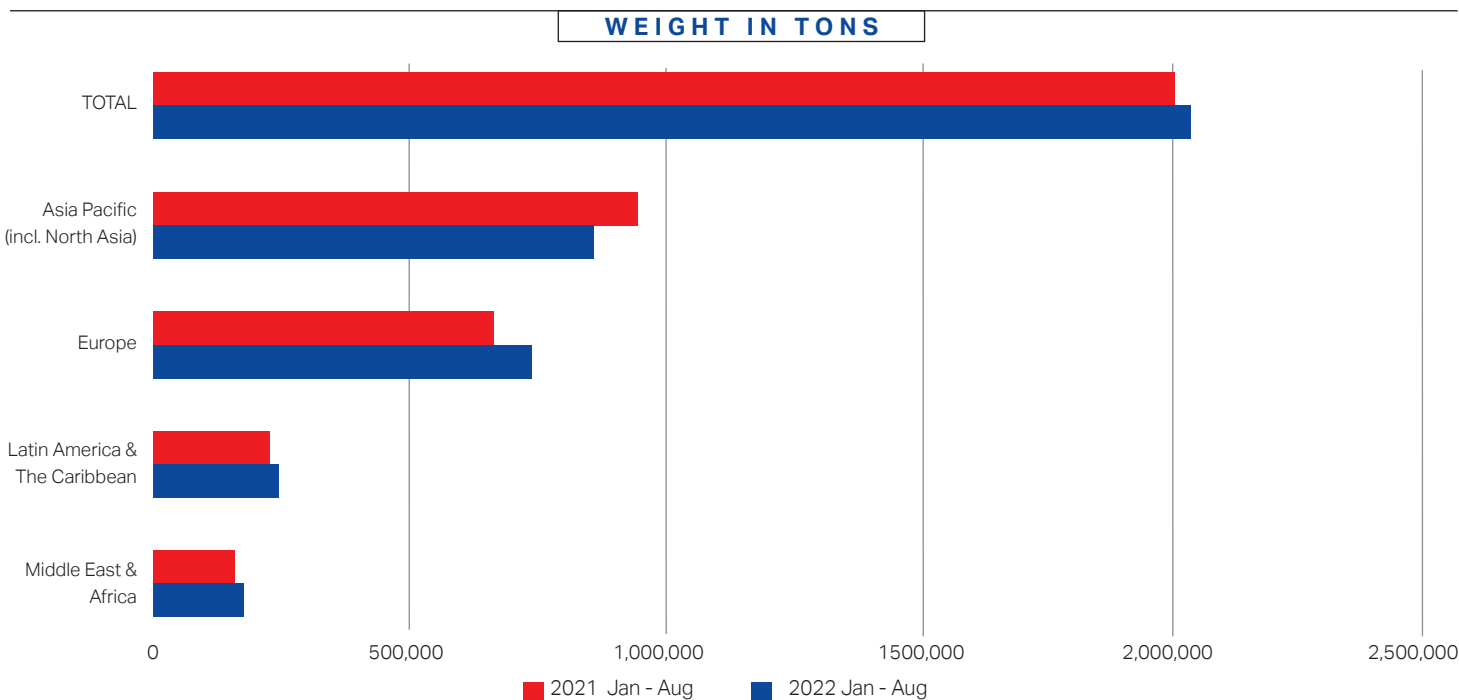


NOTE: For more information please visit: <https://www.cnsc.net>



# CASS-USA Market Monitor

CASS-USA Market Monitor appears in every issue of CNS Air Cargo Focus Magazine. The Market Monitor is designed to highlight market trends for the most recent quarter. It provides both the year-to-date activity and monthly air cargo traffic trends originating from the United States to other regions based on CNS CASS-USA data. Additional detailed reports are available to CASS-USA Participating Carriers and CNS Endorsed Agents.



2022 Weight in Tons		2021 Weight in Tons		2022/2021	
Region	Jan-Aug 2022	Region	Jan-Aug 2021	Region	% Change
Asia Pacific (incl. N. Asia)	865,746	Asia Pacific (incl. N. Asia)	943,763	Asia Pacific (incl. N. Asia)	-8%
Europe	737,911	Europe	665,672	Europe	11%
LatAm & The Caribbean	245,818	LatAm & The Caribbean	228,544	LatAm & The Caribbean	8%
Middle East & Africa	177,050	Middle East & Africa	160,347	Middle East & Africa	10%
Total	2,026,525	Total	1,998,326	Total	1%

2022 Shipment Count		2021 Shipment Count		2022/2021	
Region	Jan-Aug 2022	Region	Jan-Aug 2021	Region	% Change
Asia Pacific (incl. N. Asia)	635,618	Asia Pacific (incl. N. Asia)	672,609	Asia Pacific (incl. N. Asia)	-5%
Europe	565,139	Europe	533,140	Europe	6%
LatAm & The Caribbean	213,456	LatAm & The Caribbean	191,992	LatAm & The Caribbean	11%
Middle East & Africa	227,020	Middle East & Africa	219,648	Middle East & Africa	3%
Total	1,641,233	Total	1,617,389	Total	1%

## AUGUST 2022

In August, US export revenue increased by 17% y/y, compared to 18% in July and 33% in June. Yields were reported to increase 21% y/y in August, compared to increases of 29% in July and 38% in June. US Tonnage to Asia Pacific and North Asia in August decreased by 13% y/y compared to decreases of 19% in July and 18% in June. Export tonnage to Europe in

August increased by 7% y/y compared to 0% in July and 9% for June. Overall results for YTD (January to August) statistics reflected a 37% increase in revenue, a 1% increase in tonnage and an increase in yield of 34%.





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