The Value of Air Cargo

Connecting the World



Executive Summary

Air cargo is far more than a logistics service, it is a critical enabler of global trade, economic development, public health, and supply-chain resilience. Air cargo transports over USD 8 trillion worth of goods annually, representing approximately 33% of world trade by value.

Global air cargo demand exceeds 280 million Cargo Tonne Kilometres (CTK) annually, providing a unique advantage over other modes of transport by facilitating rapid delivery of goods across large distances. Air cargo supports time-sensitive and high-value shipments, from vaccines and perishable goods to e-commerce orders, humanitarian relief, and complex manufacturing components, making it indispensable to modern economies.

This paper explores the value of air cargo, the benefits it delivers, challenges the industry faces, and priorities for ensuring its long-term sustainability, safety, and efficiency.

Global Air Cargo Growth Strong Amid Shifting Corridors

- Air cargo demand, measured in Cargo Tonne-Kilometers (CTK), expanded by 4.3% year-on-year (YoY). Growth was concentrated in key regions and trade lanes, underscoring resilient and targeted global freight flows rather than a broad-based trade upswing.

- International CTK rose by 5.5% YoY. Asia Pacific surged to 10.7% YoY in December and Africa maintained 10.1% growth, making them the only markets with double-digit expansion. In contrast, the Americas contracted.

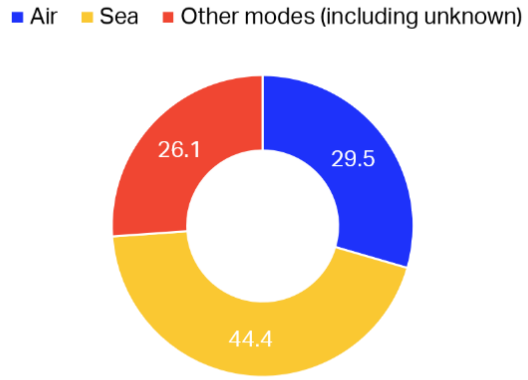
- Global cargo capacity (ACTK) increased 4.5% YoY, while Cargo Load Factor (CLF) held at 47.1%. Growth reflected measured fleet deployments, with capacity absorbed unevenly across regions and trade lanes.

Jet fuel prices fell for the first time in four months, declining 3.1% YoY and marking the 9th month in 2025 with a YoY decline. The Brent–jet fuel crack narrowed sharply to USD 23.9. Cargo yields eased for the eighth month, down 2.6% YoY, while month-on-month rates were broadly stable, contracting just 0.4%

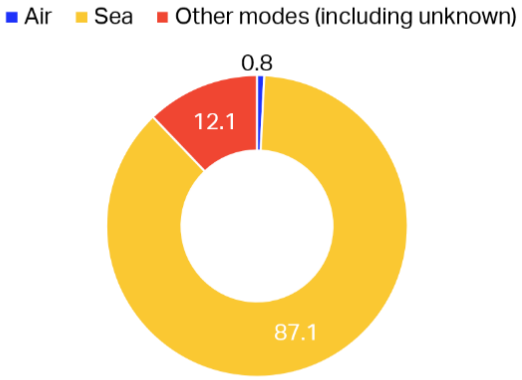
Air Cargo is a key enabler of trade by value

Air cargo provides the flexibility and speed needed to keep supply chains functioning in this environment. It has repeatedly shown its ability to adapt quickly when trade routes or sourcing patterns change. Agility is essential to air cargo. As trade routes shift and tariffs reshape supply chains, agility becomes essential for adapting quickly to sudden changes and maintaining continuity. Air cargo provides the flexibility and speed needed to keep supply chains functioning in this environment. It has repeatedly shown its ability to adapt quickly when trade routes or sourcing patterns change.

Trade by mode of transport, % of value in USD, 2025



Trade by mode of transport, % of weight in kg, 2025

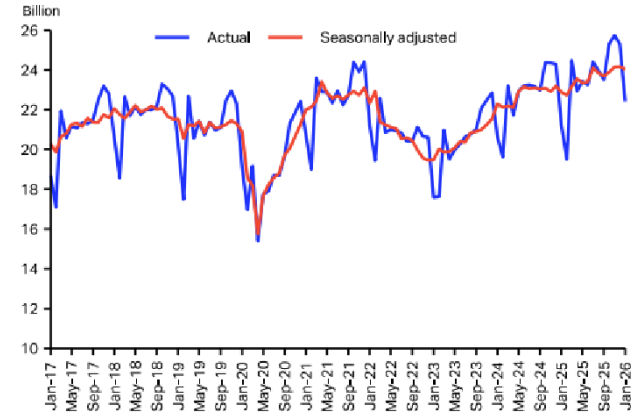


Source: IATA Sustainability and Economics, Global Trade Tracker
Note: Sample of 42 countries that consistently reported trade by air since 2015 and represent 37% of 2025 global trade. US core CPI used as deflator

It's crucial to recognize air cargo's unique role in international trade. Because air cargo is the preferred mode of transport for goods that are high-value, time-sensitive, or require special-handling – for example, microchips, semiconductors, pharmaceuticals, precious metals, and perishables.

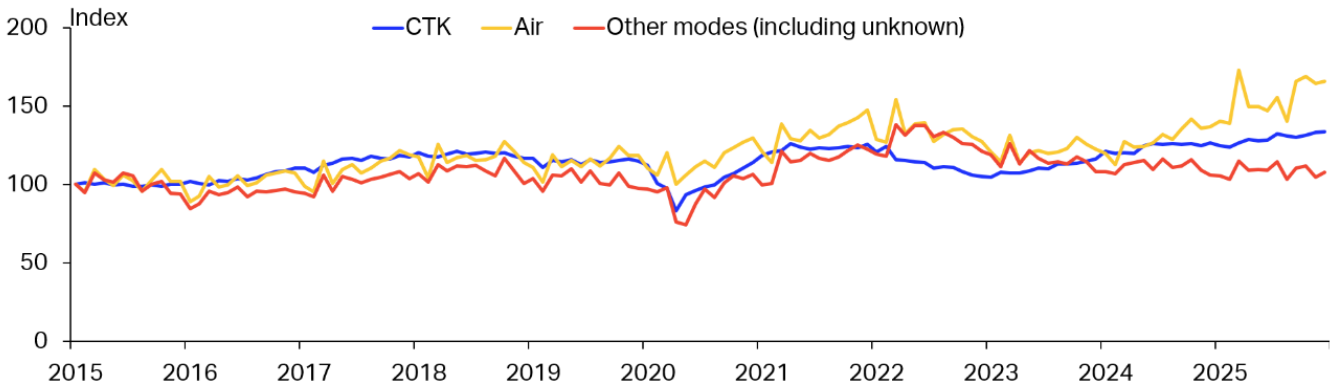
- The takeaway here is that air cargo played a **unique and vital role** as an **enabler of international trade**:
- In 2025, air cargo continued its growth trajectory and reached an all-time high of **283 million CTK**.

Chart 1: Industry CTK, billion



Source: IATA Sustainability and Economics, IATA Information and Data - Monthly Statistics

Trade by mode of transport and CTK (January 2015–December 2025)



Source: IATA Sustainability and Economics, Global Trade Tracker
Note: Sample of 42 countries that consistently reported trade by air since 2015 and represent 37% of 2025 global trade. Trade values are deflated using the US core CPI.

Why "Air Cargo Matters"

Global Trade and Economic Significance

- Air cargo moves goods worth USD 8 trillion annually, accounting for roughly one-third of global trade value.
- The industry enables the fast, reliable transport of high-quality products worldwide, powering global trade and the e-commerce economy.

Life-saving and Critical Shipments

- Vaccines prevents 3.5 to 5 million deaths annually, with air cargo safely transporting pharmaceuticals in temperature-controlled environments.
- During the COVID-19 pandemic, air cargo delivered over 1 billion vaccines via COVAX and essential equipment such as ultra-cold chain freezers and syringes. Air Cargo enabled this safe transport.

Support for Modern Commerce and Diverse Cargo Types

- The e-commerce packaging market is valued at USD 78.4 billion in 2025, an increase of 7.8% year-on-year. It is set to surpass $105 billion by 2031, driven by digital adoption and sustainability.
- Air cargo also transports perishable goods, live animals, and high-value or specialized shipments that require speed and reliability.

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Core Value of Air Cargo

Value	Benefit	Real-World Example
Speed and Global Reach	Connects markets rapidly across borders, supporting just-in-time supply chains.	Over **1 billion smartphones** are shipped globally each year, keeping consumers connected.
Economic Facilitation	Enables trade of high-value goods and e-commerce shipments.	The **coffee market** reaches USD 132 billion annually; 2.5 billion cups of coffee are consumed daily.
Reliability & Security	Ensures safe handling of sensitive, fragile, or perishable cargo.	**Over 95% of cut flowers** are transported by air; air cargo accounts for 17% of air freight despite <1% of global food supply.
Freshness delivered with care.	In a world of diverse cultures and cuisines, air cargo connects you to foods from across the globe.	The value of fresh fruit and vegetable exports, often transported by air, **more than tripled in the last 10 years**, increasing from $2.4 billion in 2015 to $8.1 billion in 2025.
Support for Critical Needs	Transports life-saving pharmaceuticals, vaccines, and humanitarian aid.	Air cargo delivers vaccines preventing **3 million deaths/year**, as well as over **13.64 billion COVID-19 vaccines** globally.
Diverse Cargo Capability	Handles e-commerce, perishables, live animals, high-value goods, and specialized freight.	Air cargo moves **over 10,000 horses** annually with professional flying grooms ensuring animal welfare.
Supply Chain Resilience	Enhances redundancy and agility in times of disruption.	Formula 1 events rely **on 660 tons of air freight**, requiring 6–7 Boeing 747s per event for global racing circuits.
Specialized Heavy Transport	Enables transport of oversized or complex cargo.	Airbus Beluga ST carried **2 H175 helicopters** from France to China; freight compartment is **7.4 m × 37.7 m**, payload **47 t**.
Supporting Culture & Luxury Goods	Facilitates the global flow of wine, coffee, and other high-value products.	France exported **$15.6 billion in wine and spirits** in 2024; coffee producers deliver fresher beans for premium pricing.
Compassion & Humanitarian Role	Safely transports human remains, providing closure for families.	Air cargo flies **over 800,000 human and animal remains** annually.

Air Cargo in a Year

Air cargo demand, measured in Cargo Tonne-Kilometers (CTK), expanded by 4.3% year-on-year (YoY). Growth was concentrated in key regions and trade lanes, underscoring resilient and targeted global freight flows rather than a broad-based trade upswing. In 2024 global air cargo demand reached a record high: total demand, measured in cargo tonne-kilometres (CTK), grew by 11.3% over 2023 (and by 12.2% for international operations).

Regionally, cargo demand surged across all major markets. For example, carriers in the Asia-Pacific region saw demand growth of 14.5%, while European airlines recorded 11.2% growth.



Impact of the COVID Pandemic on Air Cargo

The COVID-19 pandemic fundamentally reshaped global commerce and logistics. Air cargo emerged as a critical lifeline for governments and societies, transporting essential commodities such as vaccines, personal protective equipment, and e-commerce goods. The pandemic accelerated the adoption of online shopping and demonstrated the strategic importance of air cargo in sustaining global supply chains.

During the pandemic, air cargo was the primary mode of transportation for essential goods. Its reliability and speed positioned the industry as an indispensable component of global logistics, reshaping perceptions and establishing long-term strategic importance.

Growth in E-Commerce

The pandemic catalyzed a significant shift in consumer behavior, with online purchasing experiencing dramatic increases across all major markets.

In 2025, 2.77 billion people, over a quarter of the global population, engaged in online shopping.

Notably, 80% of cross-border e-commerce is transported by air, highlighting the symbiotic relationship between e-commerce expansion and air cargo logistics.

Projected global cross-border e-commerce sales:

- **2022:** $1.9 trillion

- **2026: (projected size)** $2.3 trillion

Economic and Social Impact

E-commerce is a powerful engine for economic development, particularly in emerging markets. Key impacts include:

- **Global trade efficiency:** Extends supply chains to meet previously untapped demand.
- **Job creation in Africa:** Estimated 4 million jobs supported by e-commerce growth.
- **Digital inclusion:** Platforms facilitate women's participation in the workforce, offering flexibility for balancing professional and domestic responsibilities.
- **Parcel growth:** 131 billion parcels delivered annually, expected to double by 2026.
- **Air cargo value:** Approximately $8 trillion of goods transported by air.
- **Future projections:** By 2040, 95% of all purchases may occur through e-commerce channels.

Challenges & Industry Priorities

1. Sustainability & Environmental Impact

- Industry commitment: **net-zero carbon emissions by 2050**.
- Sustainable Aviation Fuel (SAF) is projected to provide ~65% of reductions, but supply is limited.
- Adoption requires investment, policy support, and standardized emissions calculations (CO_2 Connect for Cargo).

2. Digitalization & Efficiency

- Moving to **paperless, standardized digital processes** with the IATA ONE Record standard.
- All IATA members to achieve ONE Record capability by 2026
- Supports compliance, real-time tracking, and faster cargo release (days reduced to hours in some jurisdictions).

3. Safety & Security

- Enforcement against mis-declared dangerous goods (lithium batteries, hazardous materials).
- Standardization of container and packaging protocols (fire-resistant containers, lithium battery labeling).

Conclusion

Air cargo powers global trade, supports humanitarian missions, transports specialized and perishable goods, and enables the modern e-commerce economy. It delivers over **USD 8 trillion in goods annually**, facilitates the

transport of **over 1 billion smartphones**, **4 million pets**, and life-saving vaccines that prevent **3 million deaths per year**.

Its speed, reliability, and global reach are unmatched, making it critical to global commerce, public health, and economic resilience. By embracing sustainability, digitalization, and safety standards, air cargo will continue to connect the world, delivering value, efficiency, and even hope, one shipment at a time.

Sources:

International Air Transport Association (IATA). Global Air Cargo Demand Achieved Record Volume in 2025., Sustainable Aviation Fuel (SAF).
Air Cargo Market Analysis Reports., ONE Record
World Health Organization (WHO). Vaccines and Immunization. who.int, undrr.org
UNICEF. COVAX: 1 Billion Vaccines Delivered. unicef.org
Gavi, the Vaccine Alliance. COVAX. gavi.org
Air Transport Action Group (ATAG). Facts & Figures. atag.org
Smithers, thepackagingportal.com