

Cargo Facts ASIA 2025

Session 3

Navigating the Future of Air Cargo:
Trends, Forecasts, and Strategies



Agenda

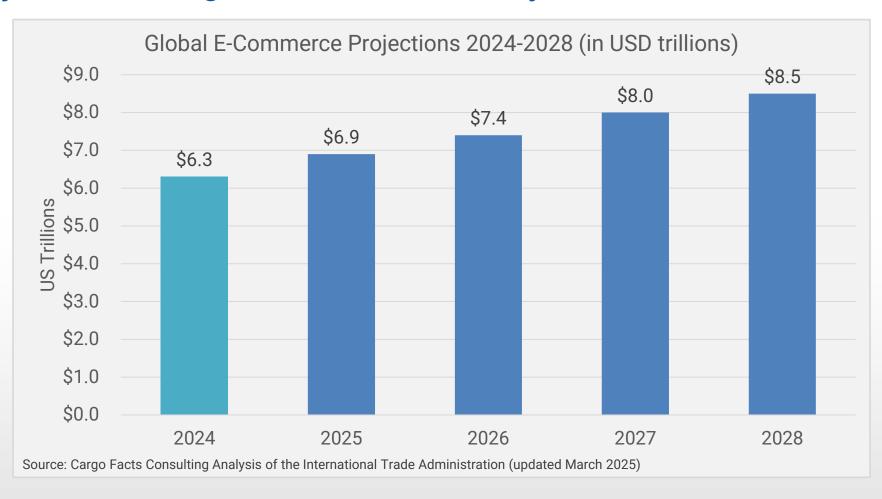
- E-commerce Trends
- State of the Market
- Regional Outlook: Asia-Pacific
- Supply & Demand Dynamics
- 20-Year Freighter Forecast Highlights
- Air Freight & Economic Indicators
- 2025 Outlook







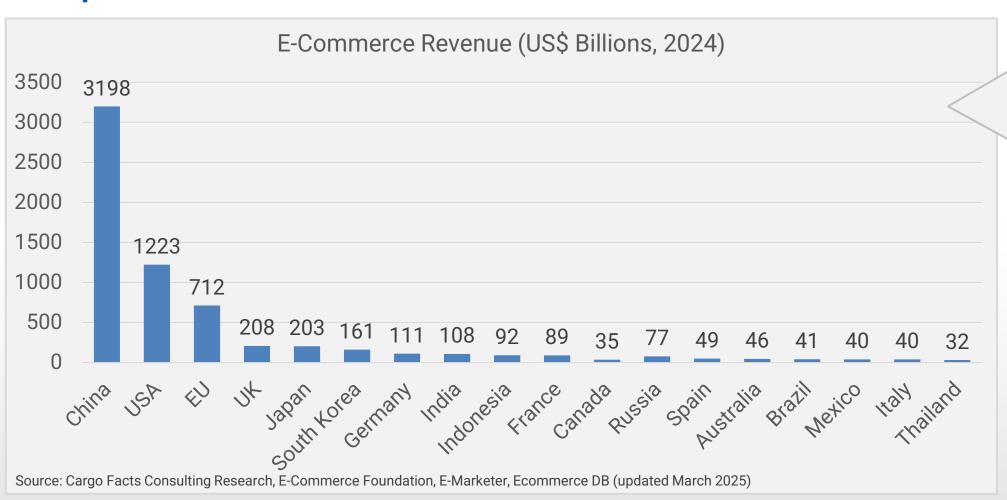
The global e-commerce market is projected to expand by 35% over the next four years, reaching the \$8 trillion mark by 2027.



- E-commerce and air freight growth go hand in hand.
- CFC estimates that 21% of global air cargo volumes are linked to e-commerce.
- Increased cross border e-commerce activity is also benefiting air cargo.



China is the largest e-commerce market, followed by the United States and the European Union.



Figures include domestic and crossborder e-commerce sales through end of 2024.

CFC estimates that the entire global ecommerce logistics value is around \$475 billion.



The e-commerce market in Asia Pacific, including Southeast Asia, is estimated at approximately \$3.7 trillion—accounting for about 65% of global online sales.



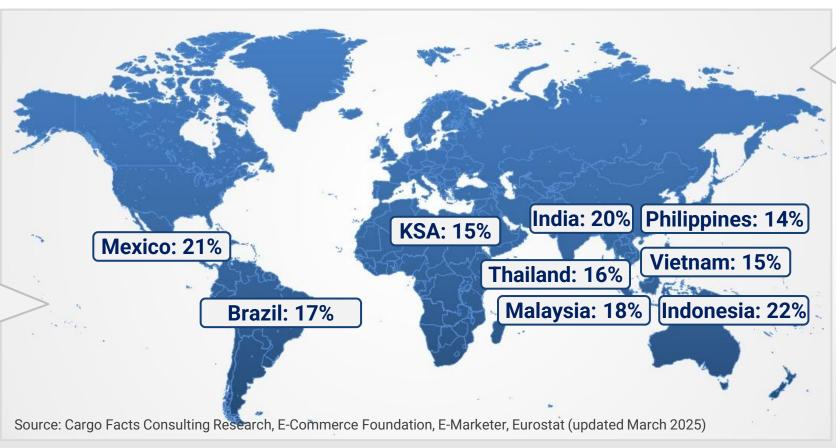
Source: Cargo Facts Consulting Research, E-Commerce Foundation, E-Marketer, Ecommerce DB (updated March 2025)



Southeast Asia and Latin America keep experiencing the fastest growth in e-commerce sales, surpassing more mature markets in Europe and North America.

Fastest E-commerce Revenue Growth Markets, 2024

High internet and smartphone adoption rates in Latin America and SEA have led to significant growth in the region's ecommerce market.

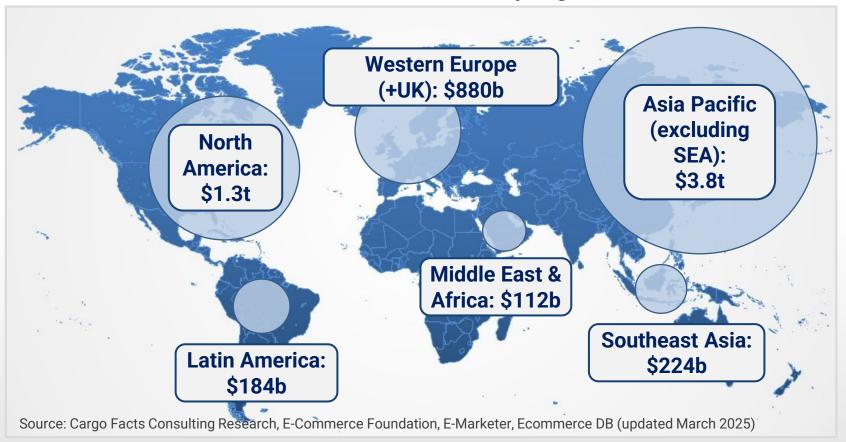


In 2024, Mexico and Indonesia displayed the highest ecommerce growth rates.



These emerging markets will continue to see the highest growth rates over the next year, though from a smaller baseline.

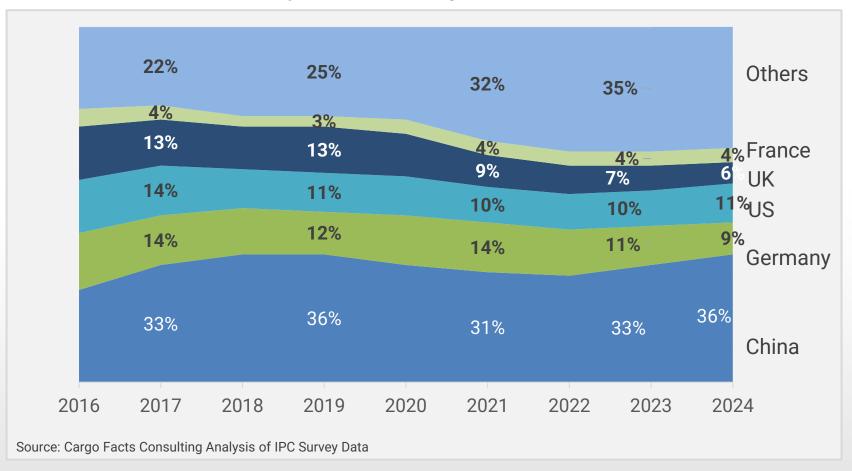
E-Commerce Market Revenue by Region, 2024





Cross-border e-commerce activity has geographically diversified over the last few years.

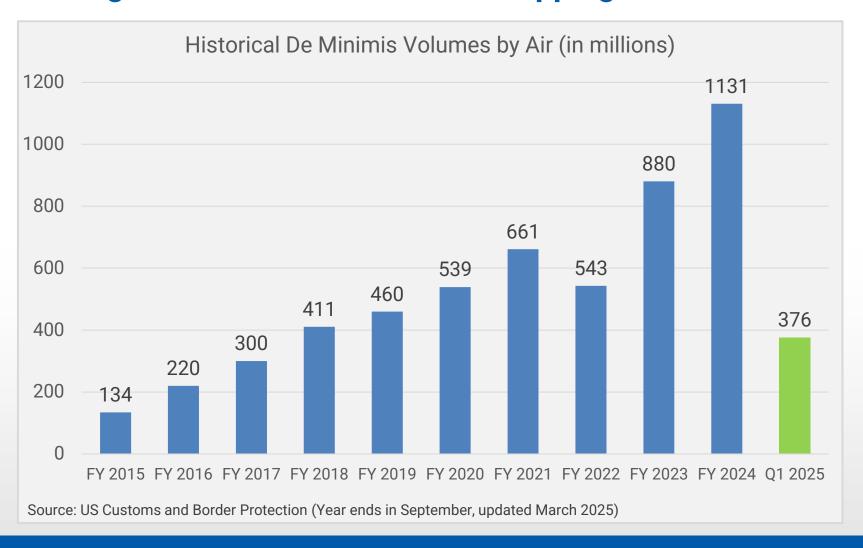
Country of most recent purchase, 2016-2024



- With the recent surge in ecommerce, China is well positioned to retake their dominance in the crossborder e-commerce space.
- Since the pandemic,
 China has seen their
 share decreased due in
 part to the lack of
 widebody belly capacity.
 This recovery is
 underway.



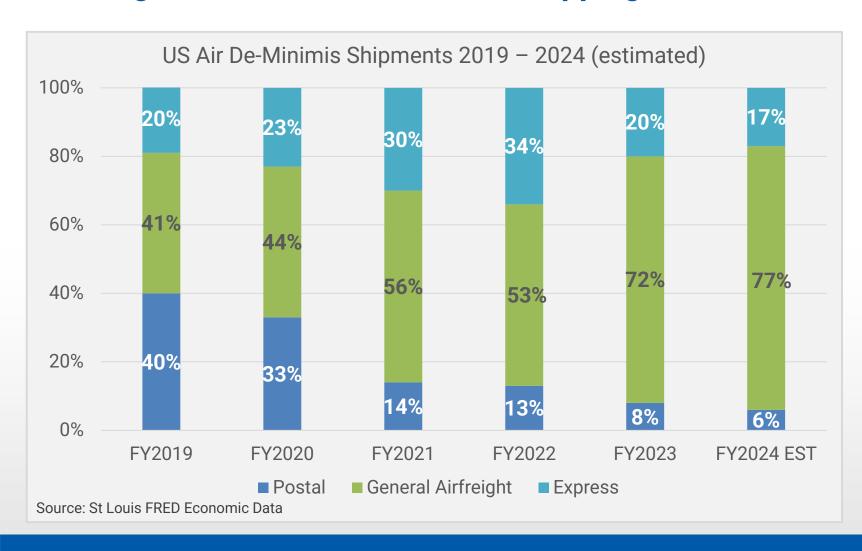
Shifting Skies: How e-commerce shipping to the US has transformed since 2015



- In the last fiscal year, the U.S. processed over 1.36 billion de minimis shipments (those valued at \$800 or less).
- Over 80% of these shipments arrived via air (around 1.1 billion).
- In 2016, we saw the increase of the minimis threshold from \$200 to \$800.
- Around US\$52.3 billion worth of de minimis shipments arrived in the US by air in FY2024.



Shifting Skies: How e-commerce shipping to the US has changed since 2019



- In 2019, postal services accounted for about 40% of air shipments but recently, shipments have shifted to general airfreight consolidations.
- During the COVID-19 peak, the share of express shipments increased to 30-34% due to capacity constraints.
- Since 2022, there has been an increase in the use of dedicated non-express company-operated freighters moving traffic across the Pacific.



Navigating trade tensions: The evolving role of e-commerce in air cargo.









Air Cargo Recovery

E-commerce growth in 2023 and 2024 helped drive air cargo's rebound after a slow period.

Temporary Suspension of de minimis

The US briefly blocked the de minimis exemption in early Feb 2025, then reinstated it three days later until better systems are ready. CBP handles 4 million packages daily.

Short-term Impact?

The suspension of de minimis could push price of items up and slow down delivery process (goods will still be cheaper vs. traditional retail stores).

Long-Term Impact?

Underlying e-commerce demand will continue to be strong.

E e-commerce platforms will likely find workarounds.

Air cargo's growing dependency on ecommerce is clear.

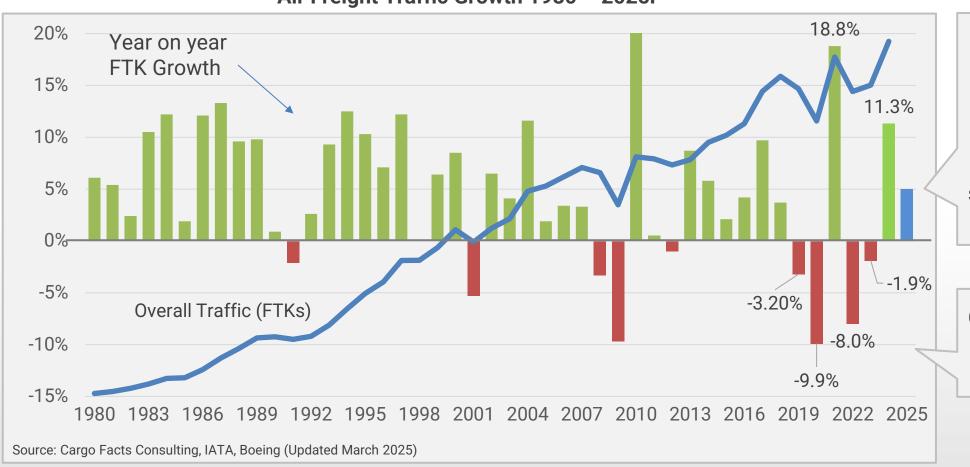






Global air cargo traffic showed double-digit growth in 2024, but we expect this growth to slow down in 2025.





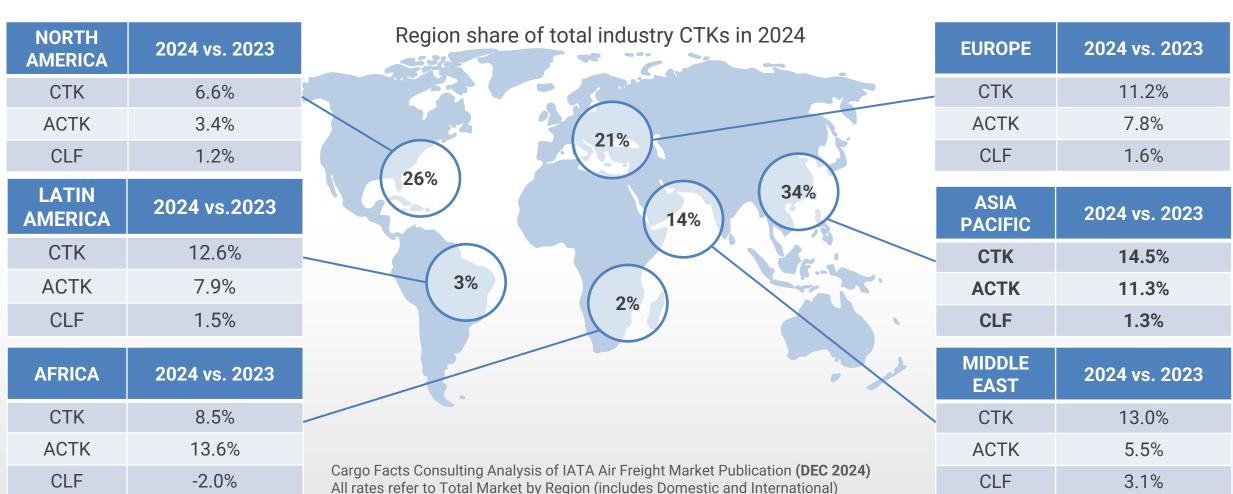
Full-year demand for 2024, measured in cargo tonne-kilometers (CTK), increased 11.3%

We should continue seeing moderate growth in 2025 (4-5%)

Cargo traffic growth has been volatile since the beginning of COVID-19.



Air cargo traffic in Asia Pacific was up 14.5 % in 2024, while capacity grew by 11.3%. Global air cargo demand marked 17 consecutive months of growth in December 2024.





Industry growth slows down in early 2025, with capacity outpacing demand.



Global demand (CTKs) rose 3.2% YoY in January, marking the 18th consecutive month of growth



Global capacity
(ACTKs)
increased by 6.8%
YoY in January,
with cargo load
factors declining



Jet fuel prices fell 11.2% YoY, continuing a decline that began in July 2024.



Consumer inflation rose in the US (3.0%), Europe (2.8%), and China (0.5%)



Strong growth in Asia Pacific (+7.5%), Latin and North America.

Trade Lane Performance:

Within Asia (+7.6%), Asia – North America (+6.1%) and Europe - Asia (+3.2%)

Cargo Facts Consulting Analysis of IATA Air Freight Market Publication (JAN 2025)



The global freighter fleet grew by only 0.7% year over year in Q1 2025, reflecting challenges such as OEM delays and feedstock constraints.







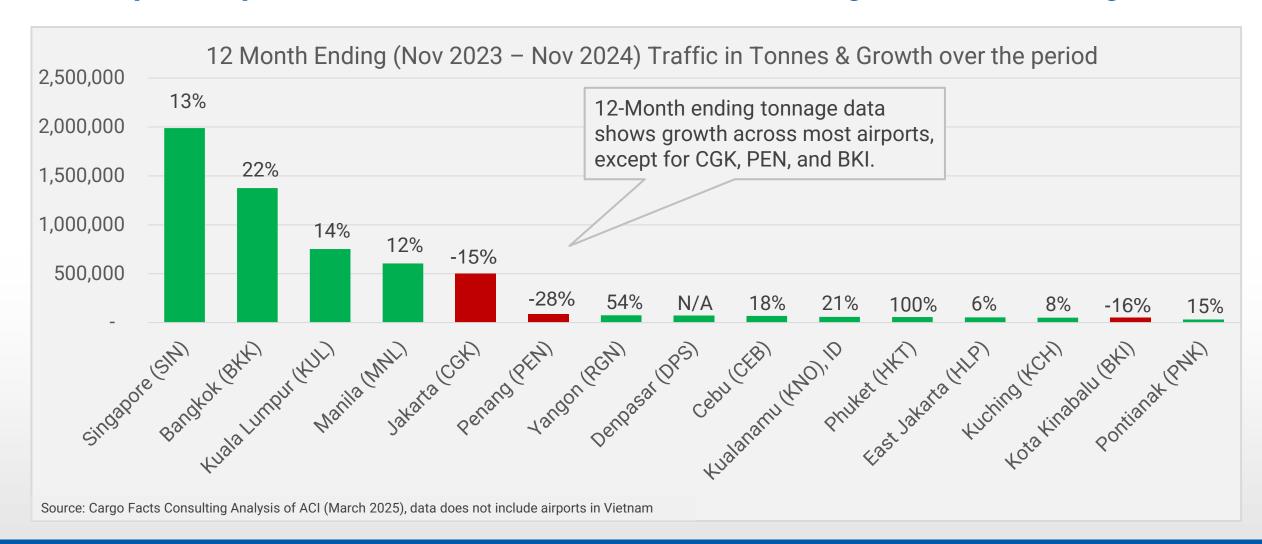


The top 15 airports in Asia-Pacific (excluding SEA) handle over 80% of all cargo traffic in the region.



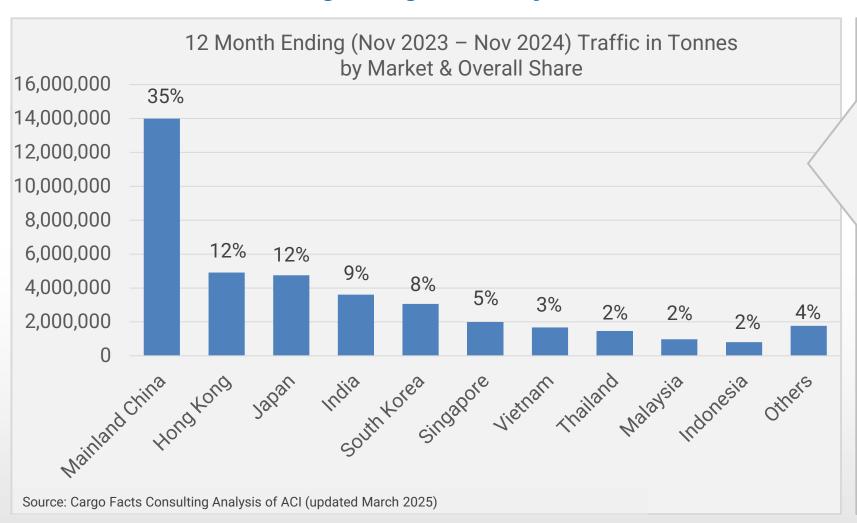


The top 15 airports in SE Asia handle over 95% of all cargo traffic in the region.





Mainland China, Hong Kong, and Japan handle 60% of all cargo traffic in Asia.

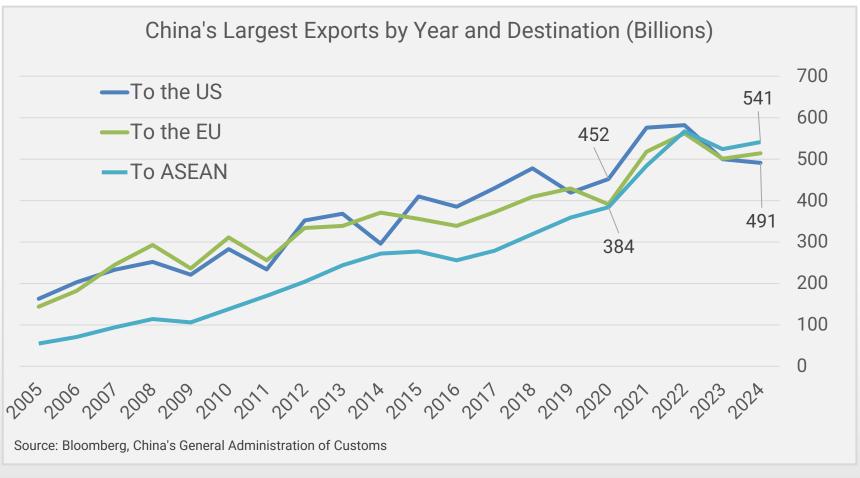


Recent Developments

- China's e-commerce exports surged in 2024, with Temu, Shein, Alibaba and JD.com driving demand for air cargo services. Cross-border ecommerce grew by over 15% year-onyear.
- Hong Kong (HKG) retained its position as the world's busiest cargo airport in 2024.
- Strong demand for semiconductors, automotive components, and medical equipment boosted Japan's air cargo volumes.
- India's growing share of regional air traffic highlights its rapid economic development and improving logistics infrastructure.



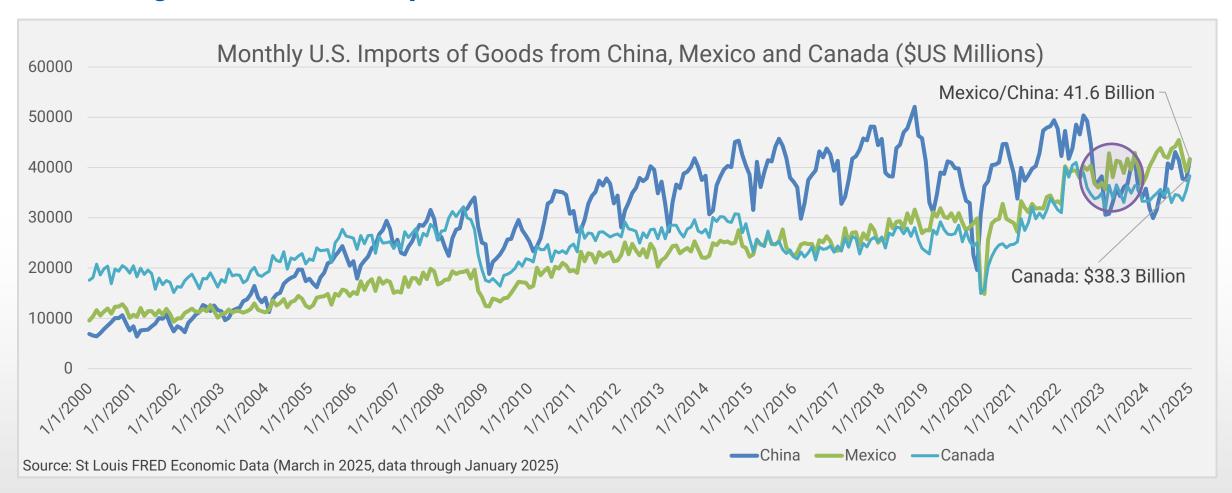
China exports to ASEAN countries surpassed those to the US and the EU in 2023. This trend continued in 2024, reflecting a clear shift in trade.



- China now directs a greater share of exports to ASEAN (Association of Southeast Asian Nations) than to the U.S. or the EU.
- This shows a significant reorientation in trade currents as Chinese companies attempt to steer reliance away from US trade.

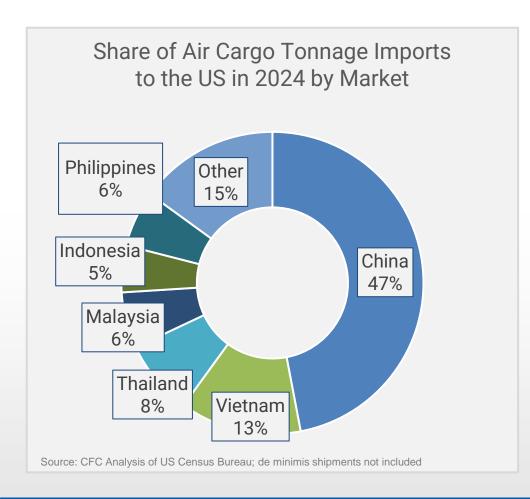


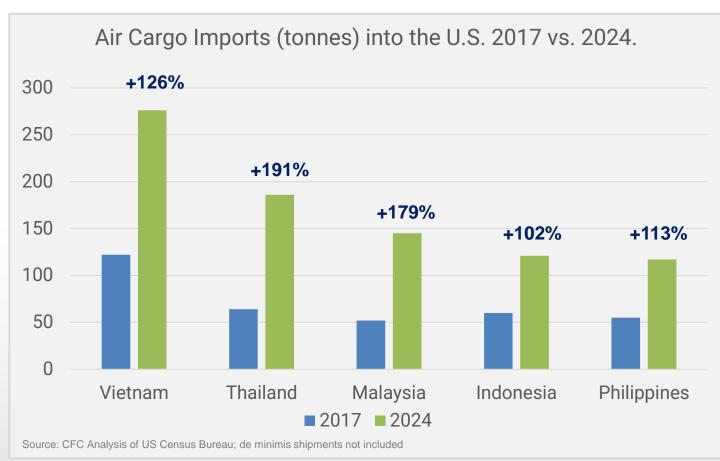
Mexico remains the largest trading partner to the US since early 2023, but China saw a slight increase in imports to the US over the summer of 2024.





Supply chain diversification is boosting air cargo demand from key Southeast Asian countries, positioning them as essential players in global logistics.







Asia Pacific air cargo growth is driven by cross-border e-commerce, high-value manufacturing, and efficient major hubs—despite ongoing trade tensions.



The region is a hub for high-value goods such as electronics, semiconductors, and pharma. Crossborder e-commerce shipments accounted for a large portion of the region's cargo volume in 2024.

While major hubs like PVG, SIN and NRT excel in efficiency, smaller players like Indonesia, Vietnam and Thailand face challenges with outdated infrastructure and limited capacity.

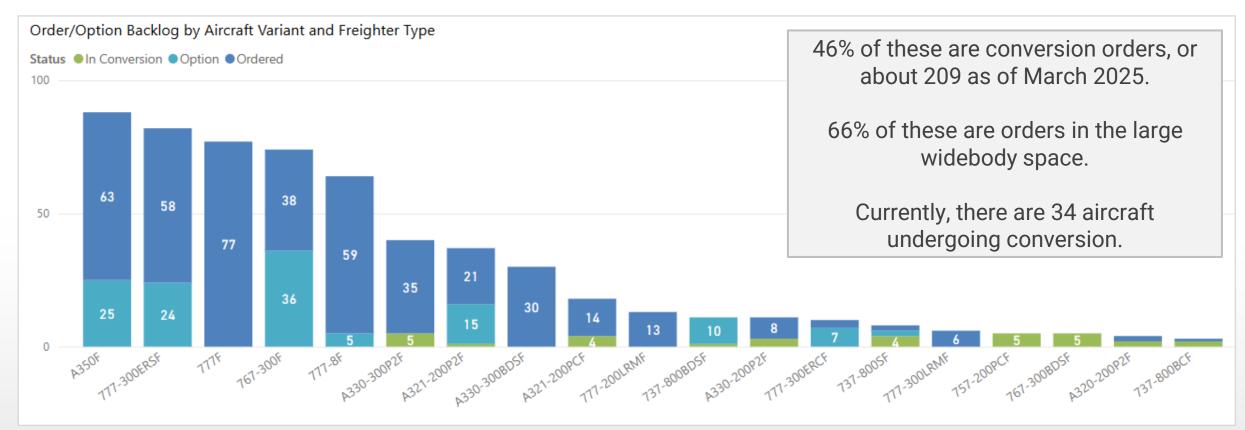
Trade restrictions and geopolitical tensions could disrupt supply chains, and this will require strategic solutions.



Supply & Demand Dynamics



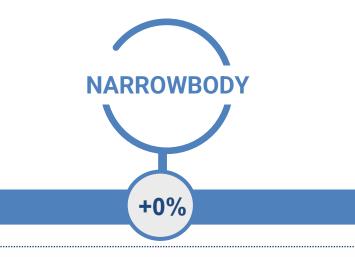
There are 446 freighter orders in the backlog (not including options), showing strong demand for aircraft in the short-term.



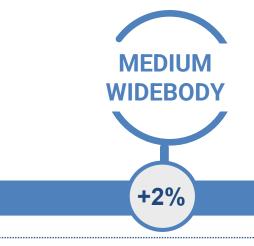
Sources: Cargo Facts Consulting, CH Aviation, Airbus, Boeing, Cargo Facts FAT Database (updated March 2025)



Overcapacity or lack of capacity?

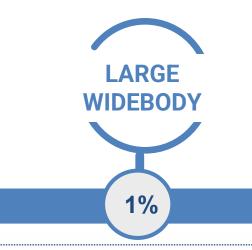


- Overcapacity:. Lessors are struggling to place converted freighters, delaying conversions; some aircraft sit grounded without engines
- Limited Feedstock: High passenger aircraft and engine values hurt conversion economics, limiting feedstock supply.



- Conversion Market Shift: A330
 conversions are rising, while 767s
 slow down due to feedstock
 shortages.
- Future Dominance: A330 set to lead over the next decade, with no 787 production or conversion program announced yet.

Percentages refer to overall fleet growth in Q1 2025 vs. Q3 2024



Capacity Constraints: Over 120 aircraft are over 30 years old and gradually retiring, with limited replacement options available.

777 Conversion Delays: Certification delays and high demand for e-commerce out of China are further constraining capacity in this segment.

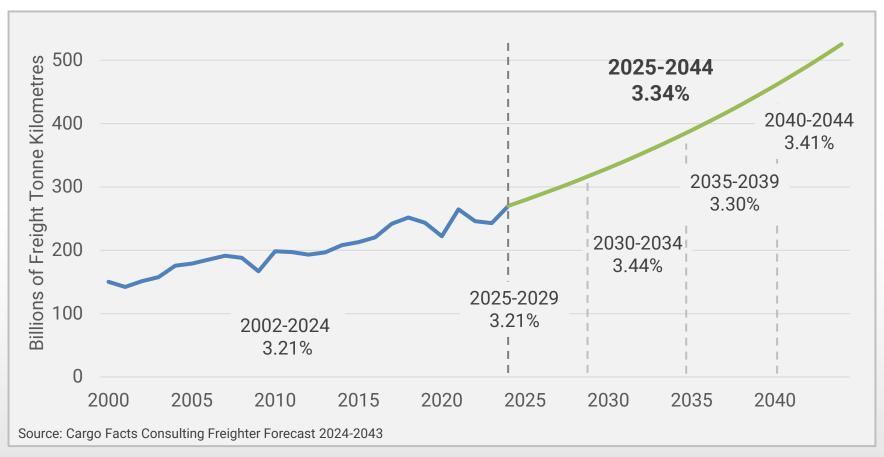


20-Year Freighter Forecast Highlights



In the long term we expect global air cargo to grow at around 3.34% per year.







The CFC forecast reflects our assessment of future product strategies to determine which specific aircraft types will be offered as jet freighters.

Status	Narrowbodies	Medium Widebodies	Large Widebodies
Facing near-term extinction	DC-9, 727, Bae 146, 737-200	A300B4, A310	747 Classics, DC/MD-10-30/40
At peak use, or with little future growth potential	MD-80, 737-300/400, 757-200	767-200, A300-600, A330-200F	747-400F/ERF, 747-400SF/BCF, MD-11F/CF, 747-8F
Expanding role going forward	737-700/800, A321/320, E190	767-300F/BDSF/BCF, A330-200/300P2F	777-200F
Planned or Potential Future aircraft?	737-900? New AEI Program? E195	787XF? A330-900F?	777-300ER, 777-200LR, A350F/P2F?, 777-8F

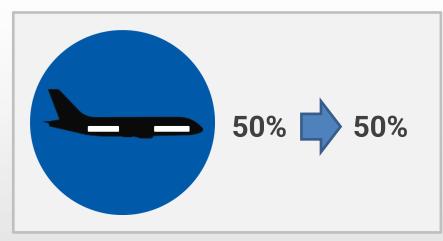
Source: Cargo Facts Consulting Freighter Forecast 2025-2044



Our forecast is driven by key assumptions on traffic, productivity, and belly share and estimate of retirements.



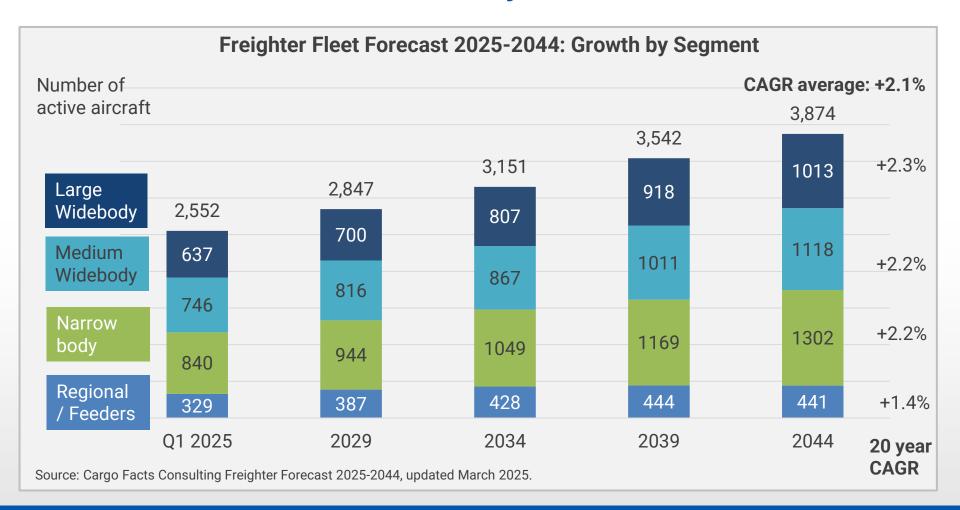








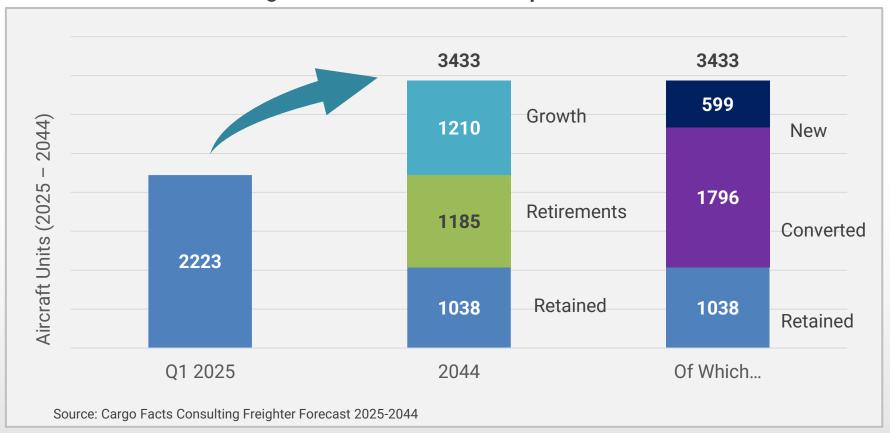
Over the next 20 years we expect the world's freighter fleet to grow by 2.1% per year from about 2,552 aircraft today to over 3,874 in 2043.





Our forecast estimates that around 2,400 jet aircraft will be added to the fleet in twenty years, with 1,000 units being retained through 2044.







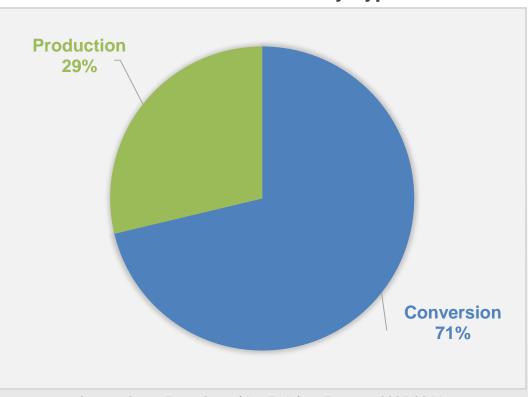
Asia Pacific is expected to lead global jet freighter fleet additions, accounting for 39% of the total, with 71% of these additions being P2F conversions.

Jet Freighter Forecast Fleet Additions 2025-2044 by Region



Source: Cargo Facts Consulting Freighter Forecast 2025-2044

Asia-Pacific Jet Freighter Forecast Fleet Additions 2025-2044 by Type



Source: Cargo Facts Consulting Freighter Forecast 2025-2044



Likewise, in the regional segment we consider all strategies across the different options.

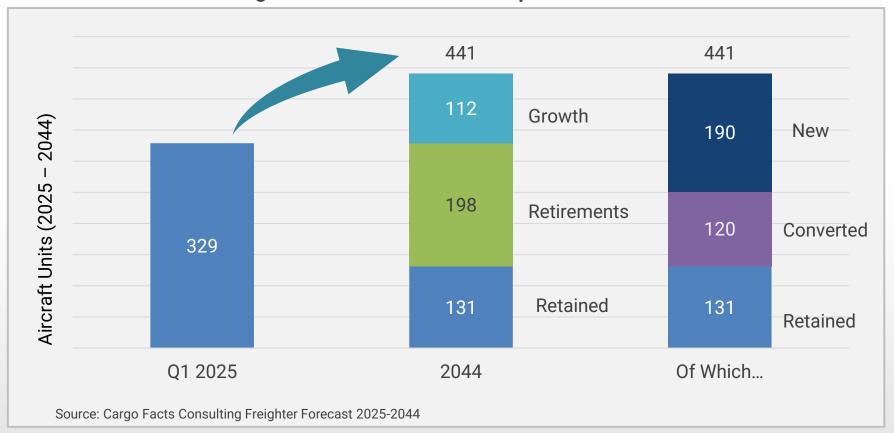
	Turboprops/ Regional Jets	
Facing near-term extinction	Fokker F27/50, Bae ATP, ATR 42	
At peak use, or with limited future growth potential	CRJ-200, SD3-60, E120, Saab340/2000, Dash 8-Q100/300	
Expanding role going forward	ATR 72-600, Dash 8-Q400 ATR 72 conversions, SkyCourier 408	
Future aircraft	UAVs?	

Source: Cargo Facts Consulting Freighter Forecast 2025-2044



Our forecast estimates that around 300 feeders will be added to the regional fleet in twenty years, with 130 units being retained.



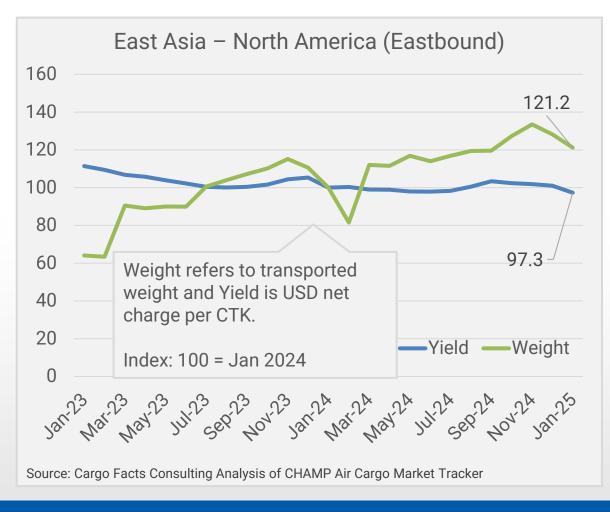


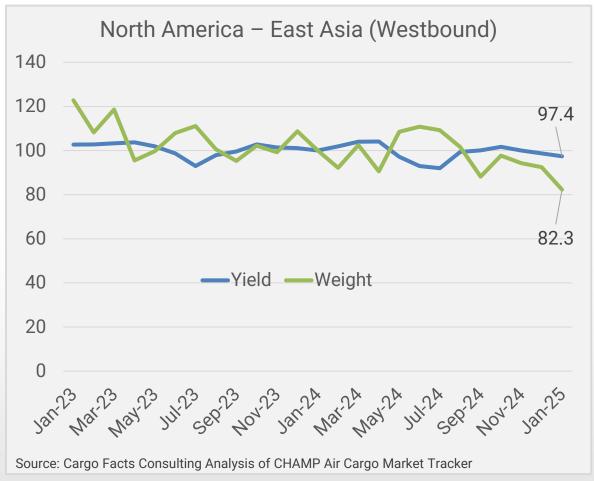


Air Freight & Economic Indicators



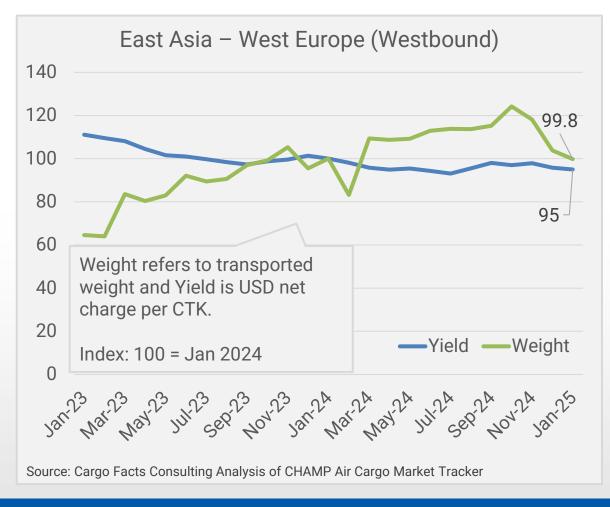
Transpacific: Eastbound volumes (East Asia to North America) are up, while westbound traffic (North America to East Asia) appears to be declining.

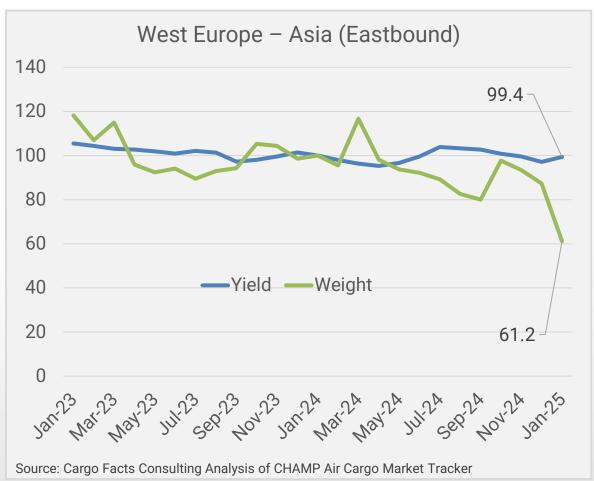






Europe – Asia: Westbound volumes are rising, while eastbound traffic is down. Yields appear relatively stable in both directions.

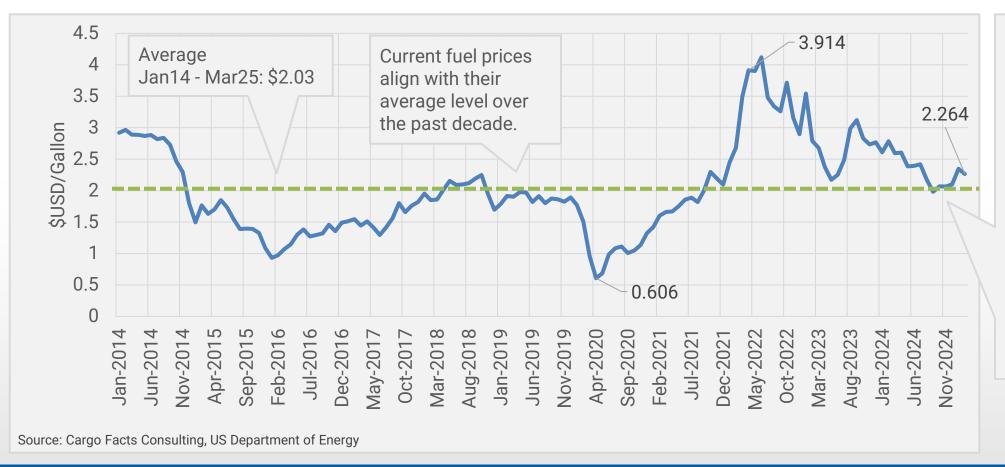






Jet fuel cost is down 19% from March 2024 and it has been decreasing since the summer of 2022.

U.S. Gulf Coast Kerosene-Type Jet Fuel Spot Price FOB (USD/Gallon) – as of March 20, 2025



US Gulf Coast Kerosene-Type Jet Fuel Spot Price is at a current level of \$2.3, down from \$2.8 one year ago (-19%).

IATA estimates that jet fuel prices will be 5% lower on average in 2025.

Fuel prices could see some swings in 2025 as airlines make progress in introducing SAF.



In the context of air freight, which sectors will be most affected by tariffs?



Sectors with
High Value-toWeight Ratios



Likely to see the most immediate air freight impact as they balance rising costs with the need for quick delivery.



Just-in-Time Supply Chain



(e.g., Automotive, Electrical Components): Air freight demand will spike in sectors relying on these models to avoid production disruptions caused by tariffs.



E-commerce Impact



Sectors like apparel and electronics will feel amplified pressure from tariffs as they align with consumer demand for faster delivery, further straining air freight capacity.



In Summary



Apparel, Electronics, and Automotive Parts will likely see the most significant air freight impact, driven by the need for speed, value preservation, and disruption mitigation.







2025 Global Risk Outlook Matrix

Fuel Price Volatility Escalation of Red Sea disruptions

De minimis suspension & policy changes

Impact to Air Cargo

Global Inflation worsening

Rise of Interest Rates Rise of global geopolitical conflicts

Cyberattacks on logistics or trade infrastructure

Deteriorating Trade Agreements

Climate Change Disruptions

Likelihood

Economy & Finance

Global Trade & Markets

Geopolitical & Regional

Source: Cargo Facts Consulting Analysis of 2024 trends and outlook, Bloomberg, BlackRock, IATA, Credit Suisse, Colliers, Goldman Sachs, HSBC, IMF, JP Morgan, Reuters, Wells Fargo



The air cargo market heads into 2025 with steady demand but rising geopolitical and trade uncertainties.



Declining Conversion Deliveries: limited feedstock availability and lack of conversion options.



Unstable Air Freight Rates: Tight capacity and steady demand are keeping rates high (for now), but volatility is a risk.



Tight Cargo Capacity: reduced supply of new freighter aircraft, combined with fewer conversions



Geopolitical and Tariff Uncertainty:
could disrupt capacity and
demand expectations



Sustained Air Freight Demand: e-commerce, disruptions and highvalue and time-sensitive goods



Short-Term Outlook: Air cargo traffic to grow 4-5% in 2025.





Freighters

Analysis of developments and trends across freighter segments, including maindeck capacity and fleet data.

View Dashboard

FREIGHTER FORECAST

Cargo Giants: The enduring role of the Boeing 747 in air cargo evolution

② MAY 2, 2024

- Freighter Forecast Tool
- Passenger Feedstock Tool
- Engine Dashboard
- Freighter Capacity Index
- Operator Dashboard
- Freighter Order Backlog



Fynress

Historical overview and five-year growth forecast of key international and domestic air express markets.

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EXPRESS

Southeast Asia's air cargo hub: Singapore's Changi Airport leading through disruption

O NOVEMBER 28, 2024

Air Express Map



E-commerce

Examination of domestic and cross-border ecommerce, and its effect on key segments.

View Dashboard

E-COMMERCE

Navigating the winds of change: Cathay Pacific's pivotal role in Asia-Pacific air cargo

O AUGUST 31, 2024

- E-commerce Logistics Outlook
 Dashboard
- Amazon Air Network Map



FutureWatch

Analysis of the latest air cargo trends and insights, including market forecasts and updates from carriers, lessors and freight forwarders.

View Dashboard

DRONES

UAV market update: Natilus' perspective on challenges, opportunities

O NOVEMBER 20, 2024

- Cargo Traffic and Growth by Airport
- Conversion Center Locations
- Lessor Freighter Marketshares
- PMI Forecast Map
- Cargo Operating Systems Map
- Global Rates, Weight & Yield Index Tracker
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