



Air Service Data Seminar

Developing Air Cargo Service at Your Airport

Doug Bañez, Managing Director



January 2018

Agenda

- Air Cargo Industry Trends
- Structural Changes
- The Amazon Effect
- Cargo Air Service Development and Data Issues
- Closing Thoughts & Questions

Air Cargo Industry Trends





Why Airfreight Traffic Is Up: Dog Food and Semiconductors Are Vying for Space

Need for fast delivery ramps up battle for cargo room; 'begging and pleading to get on airplanes'

BUSINESS

By Doug Cameron 
and Jennifer Smith 

Air cargo shipments are soaring due to surging demand for rapid delivery of everything from smartphones to paper towels.

As online shoppers come to expect faster home delivery, passenger jets and dedicated cargo planes are picking up more kinds of cargo traditionally carried by container ships, trains and trucks. Global airfreight traffic climbed almost 9% year-over-year in



Shoppers accustomed to getting e-commerce orders in two days or less are adding to the pile at airport cargo terminals.

November as a jump in e-commerce orders supercharged the holiday rush,

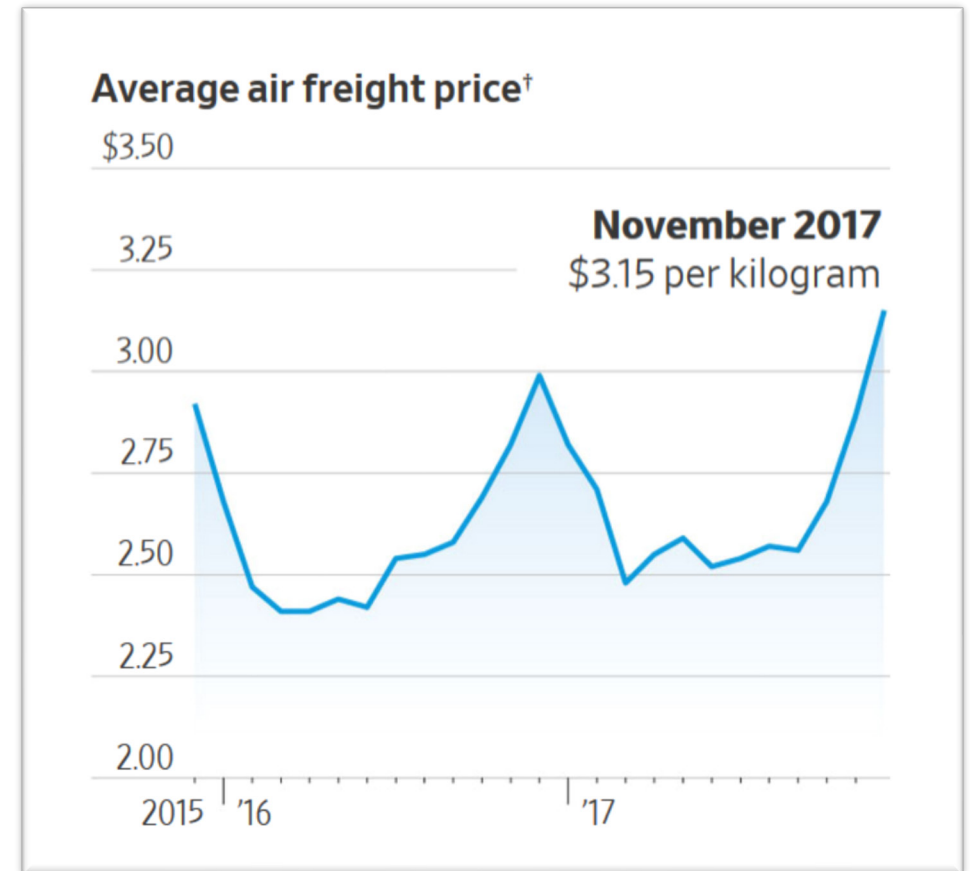
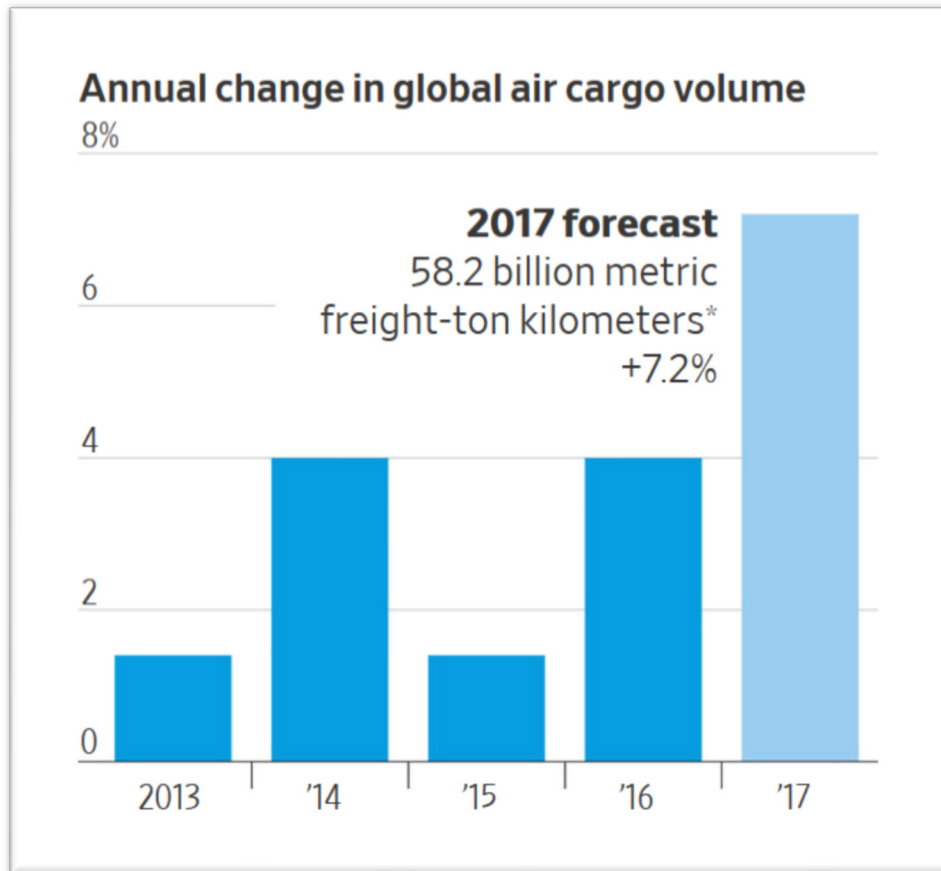
according to cargo data provider WorldACD. Rates for airfreight were up 17% annu-

ally that month.

Strong global economic growth also is spurring demand for goods long ferried by air, such as automotive and manufacturing parts. The dual surge is creating some of the stiffest competition for air-cargo space in years, and prompting companies to search for older, idle jets to convert into freighters.

"You're literally begging and pleading to get on airplanes, leveraging any contact you can," said Neel Jones Shah, global head of airfreight for Flexport Inc., a San Francisco-based firm that helps customers arrange

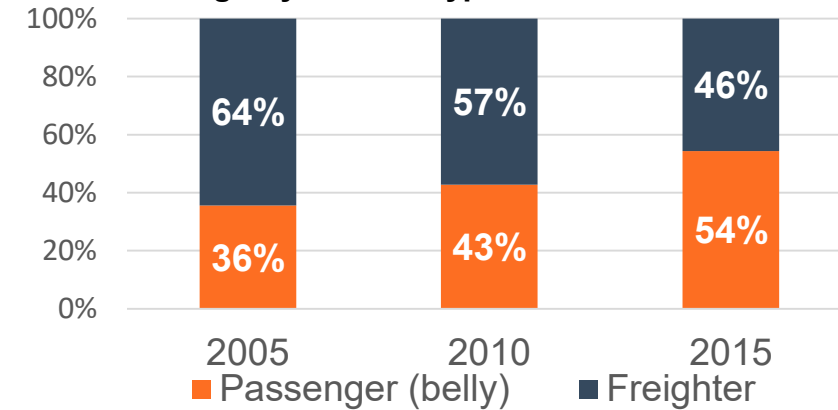
E-commerce and a strong economy are stoking demand for air freight



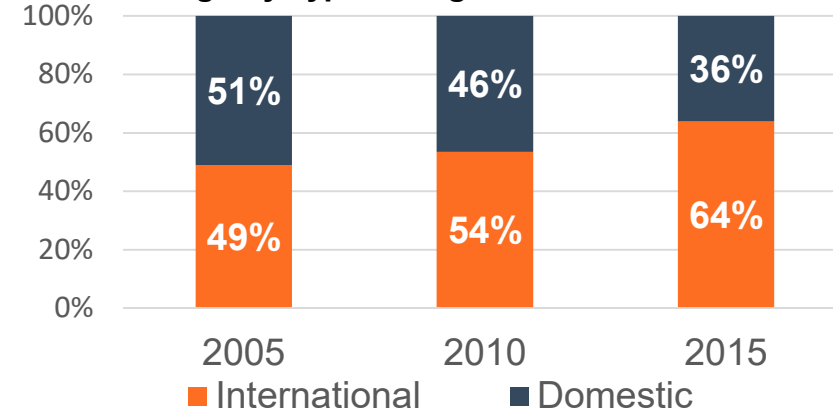
Air Cargo Trends (JFK example)

- Cargo-friendly widebody passenger aircraft now account for the majority of tonnage handled at JFK
- Airbus projects that the trend towards belly cargo will continue; belly cargo will account for 57% of worldwide FTKs by 2034
- The belly cargo trend means that JFK's air cargo is increasingly associated with international passenger flights
- As JFK increases its international passenger air services, belly cargo will grow as well
- Trucking is taking a larger share of the domestic air cargo market

JFK Air Cargo Trend
Share of Cargo by Aircraft Type



JFK Air Cargo Trend
Share of Cargo by Type of Flight



Structural Change



E-commerce – led by Amazon – will continue to experience double digit growth over the next several years

- Recent study by Forrester predicts e-commerce will grow to 17% of U.S. retail sales by 2022
- In 2016, e-commerce accounted for 12% of U.S. retail sales (\$395 B)
- 83% of U.S. online adults made a purchase from Amazon in 2016, and 55% used Amazon as a research resource before making a purchase
- Amazon could be responsible for nearly half (44%) of U.S. e-commerce sales in 2017



Consumer preferences and structural changes in the grocery business have led to growth in perishables air shipments



- Consumer-led movement toward fresh foods and healthy lifestyles is driving change with grocers
- Clear trend toward grocery retailers taking control of supply chain
- Change from consolidated/centralized model to dealing directly with vendors – especially with perishables
- Cost of air freight is baked into perishables pricing and demand continues to rise



The Amazon Effect



Amazon Air Profile

- Fleet consists of B767 freighters operated by ATI and Atlas
 - Current: 32
 - End 2018: 40
 - Eventual(?): 100
- Currently services markets (40+) with fulfillment centers and high customer demand – particularly Prime members
- Supplements cargo shipments by FedEx and UPS
- Developing \$1.5B hub on 900 acres at CVG
 - Scheduled operational by 2020



The Amazon Air “experiment” was a success. Now what?

- In it to win it, so wasting no time and sparing no expense
- Hiring top talent from groups like UPS and Boeing whose employees typically stay for life; copying and improving technology
- Employing predictive analytics to fine-tune inventory management and the network
- Raising the bar
 - Forcing traditional retailers and other e-commerce companies to respond with similar service levels
 - Expensive and distracting for competition
- Amazon Air knows the demand that’s coming, as soon as ordered. FedEx and UPS only know when it shows up.

Competitive response? FedEx upgrading feeder fleet

- Early Nov. 2017
 - ATR Freighter announcement
 - 30 orders & 20 options
 - Deliveries begin in 2020
- Late Nov. 2017
 - Cessna SkyCourier announcement
 - 50 orders & 50 options
 - Deliveries begin in mid-2020



Cargo Air Service Development and Data Issues



Why is air cargo important to airports and communities?

- Facilitates economic development and linkages to global markets
- Serves regional shippers, manufacturers and consumers
- Enabler of successful passenger air service development
- Inescapable – a true by-product of passenger air service

Passenger and air cargo data comparisons



CATEGORY	PASSENGER DATA	AIR CARGO DATA
Domestic O&D Traffic	Pax levels by city-pair with airport and carrier detail	None
International O&D Traffic	Pax levels by city-pair with airport and carrier detail (U.S. Flag)	Air trade by state, by foreign country partner & commodity detail - value and weight
Itinerary / Routing Info	By air carrier and airport, nonstop and multi-stop itinerary detail; hub transparency	For international shipments – state of origin by customs district of exit, no air carrier detail; no hub transparency
Segment Traffic Data	Onboard pax - by air carrier (US & Foreign Flag)	Onboard cargo tonnage - by air carrier (US & Foreign Flag)
Point of Sale / True Origin	MIDT / ARC data by zip code of traveler	None
Pricing	Avg fare of U.S. carriers, by route	None (non-public CASS data)
Flight Schedules	Worldwide coverage of domestic and international flights by carriers of all sizes	No integrated carrier or charter operators
Workarounds	Traveler surveys, license plate surveys, modeling	Forwarder & shipper interviews, modeling

Airports' cargo data uses & types



	International Markets				Domestic Markets			
	True O&D Traffic Levels			Rate / Yield Levels	Air			Ground
	Basic Traffic Levels	With Routing Details	With Commodity Details		Basic Traffic Levels	True O&D	With Commodity Details	Truck Traffic / Volumes
1. Cargo Market Development								
Identify Airport Catchment Area - Current	X	X			X	X		
Identify Airport Catchment Area - Potential	X	X			X	X		
Analyze Leakage / Identify Service Opportunities	X	X	X	X	X	X	X	X
Market Airports' Existing / Potential Services	X	X	X	X	X	X	X	
2. Cargo Planning (Capacity/Efficiency)								
Airport Capacity / Traffic Forecasting	X	To extent drives forecasts			X	To extent drives forecasts		X
Economic Impact	X				X	X		X
Ground Network Issues	X	X			X	X		X

Primary sources of air cargo data



U.S. Department of Transportation



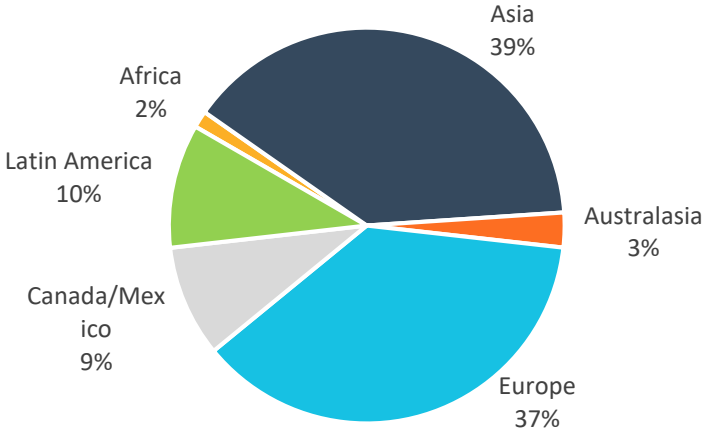
AIRPORTS COUNCIL INTERNATIONAL



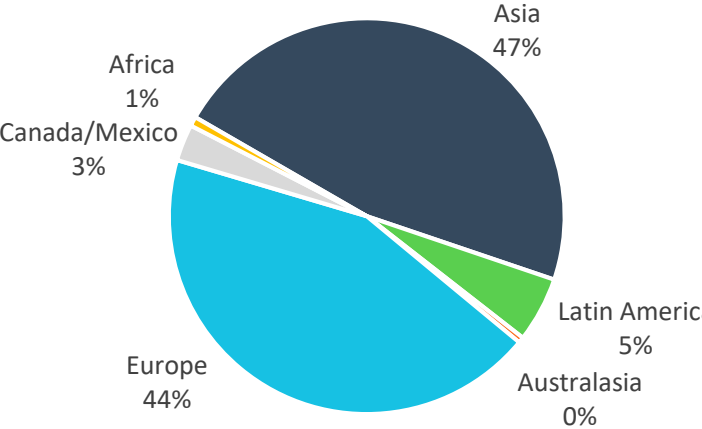
Air trade profile of the North Carolina market



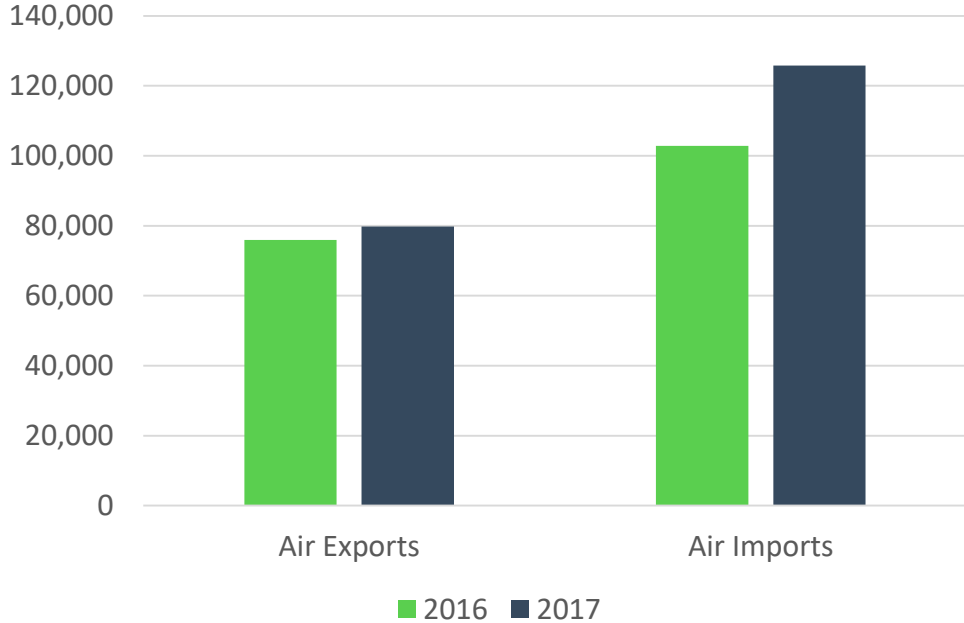
**NC AIR EXPORTS
BY WORLD REGION**



**NC AIR IMPORTS
BY WORLD REGION**



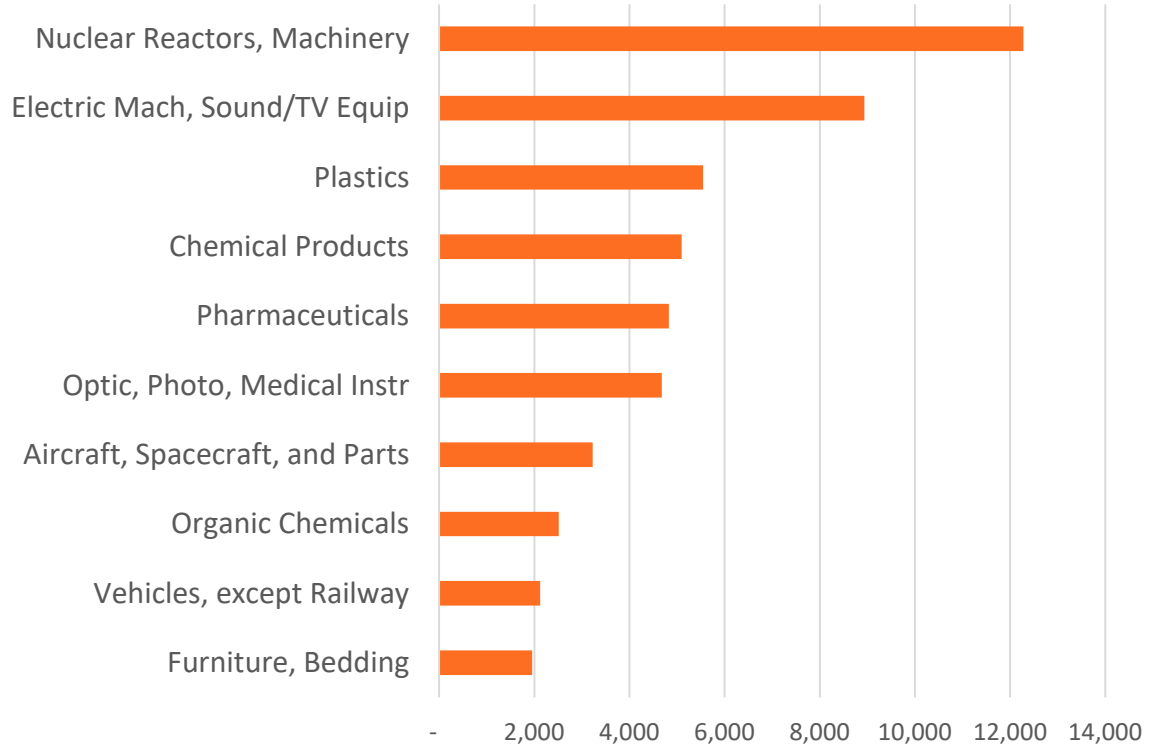
**NC AIR TRADE: 2016-2017
(METRIC TONS)**



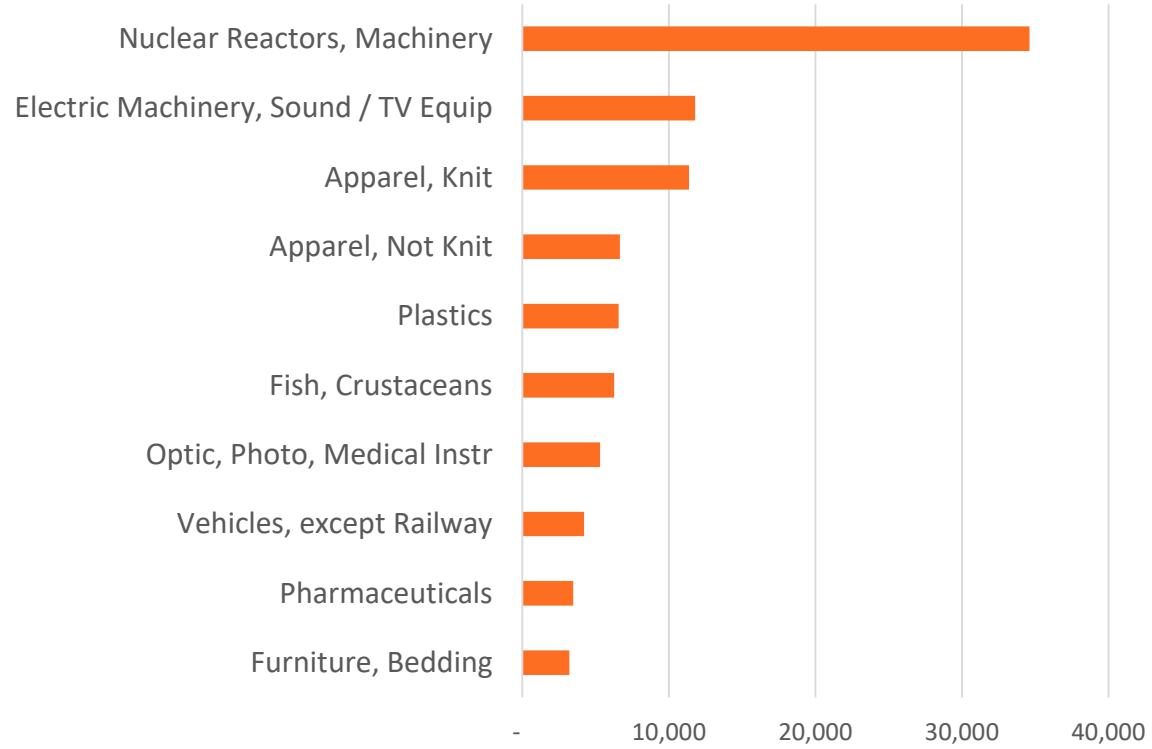
Top air trade commodities to/from North Carolina



NC AIR EXPORTS
WEIGHT (METRIC TONS)



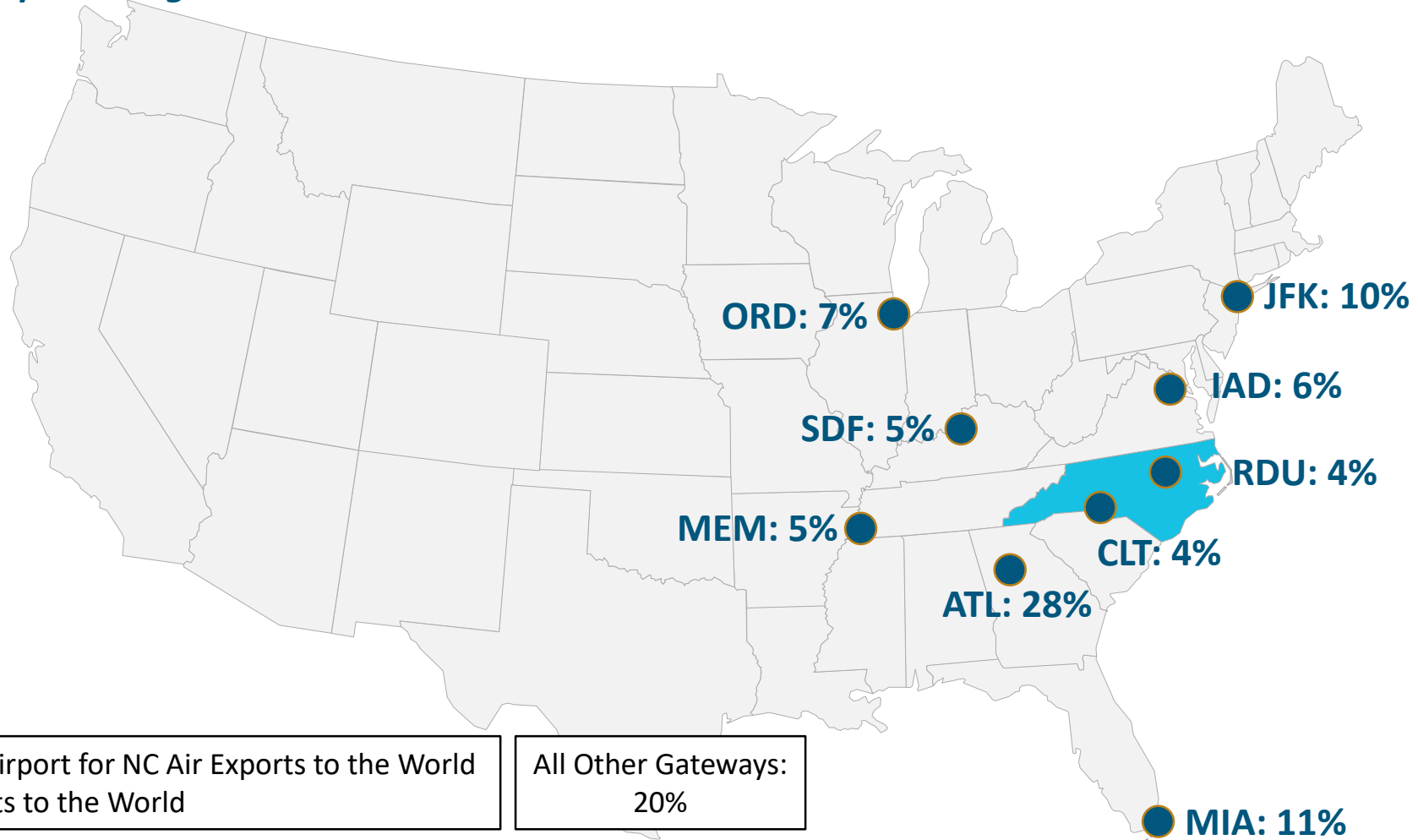
NC AIR IMPORTS
WEIGHT (METRIC TONS)



North Carolina air exports to the world by airport of exit



Shares of NC Air Export Weight



Airport Code = Gateway Airport for NC Air Exports to the World
% = Share of NC Air Exports to the World

All Other Gateways:
20%

Additional information for relevant targets

- Two primary targets: air carriers and freight forwarders
 - Understand their needs and strategies
- Cargo infrastructure and facilities
- Access to the interstate highway system
- Air cargo service providers (ground handlers, forwarders, RFS)
- Costs and incentives

ACI-NA Air Cargo Guide

- Available on the ACI-NA website in the Air Cargo Committee area
- Designed to provide practical information to airport managers involved in air cargo development
 - Air cargo market development
 - Demand forecasting techniques
 - Cargo facility analysis



The screenshot shows the ACI-NA website header with the logo and navigation menu. The main content area is titled "Air Cargo Guide" and includes a disclaimer and a list of chapters.

ACI-NA AIRPORTS COUNCIL INTERNATIONAL - NORTH AMERICA
The Voice of Airports

Home | About ACI-NA | Join ACI-NA | Conferences | Committees | Newsroom | Stats & Resources | Products Guide

Air Cargo Guide

DISCLAIMER

ACI-NA's Air Cargo Guide is intended to provide general, practical information to airport officials and others involved in air cargo development. It does not constitute professional legal advice and users should not rely on it as a sole source of information. ACI-NA, the authors and contributors, disclaim liability for any such reliance. In no event shall ACI-NA or the authors and contributors be liable for consequential damages or any other damages as a result of the use of the ACI-NA Air Cargo Guide. Questions or comments about the text or about the restrictions on reproduction should be directed to the ACI-NA Economic Affairs and Research Department personnel at (202) 293-8500.

- [Chairman's Greeting](#)
- [A Message from the Air Cargo Committee Leadership](#)
- [Acknowledgments](#)
- [Chapter 1 - A Historical Perspective](#)
- [Chapter 2 - Developing an Air Cargo Market](#)
- [Chapter 3 - Demand Forecasting Techniques](#)
- [Chapter 4 - Air Cargo Facility Analysis](#)
- [Chapter 5 - Financial and Management Strategies](#)
- [Chapter 6 - Bilateral and Regulatory Issues](#)
- [Chapter 7 - The Airport - Tenant Relationship](#)
- [Chapter 8 - Airport Performance Benchmarking](#)
- [Chapter 9 - Security](#)
- [Chapter 10 - Alternative Land Use](#)

Thank You

Doug Bañez

Managing Director

dbanez@hubpointadvisors.com

