Washington State
Air Cargo Movement Study

Joint Transportation Committee
Olympia, WA
November 15, 2017
Agenda

— Introductions/Roles on Study
— Project Purpose and Objectives
— Review Work Plan and Schedule
— Air Cargo Background
— Next Steps
— Discussion
Project Purpose and Objectives

Purpose: Evaluate the current and future capacity of the statewide air cargo system

Objectives:
1. Educate policy makers about air cargo movement at Washington airports;
2. Explore possibilities for accommodating the growing air cargo market at more airports around the state; and,
3. Identify the State’s interest and role in addressing issues arising from air cargo.
Air Cargo Basics
Air Cargo is Big Business

• Over $100 billion air freight & express market
• $60 billion US domestic market
• Freight traffic growing 3-5% per year worldwide
• Market size has doubled every ten years
• Integrator/express carriers control 65% of the US domestic cargo market
• Cargo share of total airline revenues:
  • 5% for US domestic majors
  • 15% for European majors
  • 20-50% for Asian majors
Air cargo forms a small portion of global tonnage…
…but a large part of global trade value

1% of world trade tonnage
- Air
- Sea, Rail & Road

33% of world trade value
- Air
- Sea, Rail & Road

Air cargo is extremely valuable to world trade
Work Plan and Schedule
Profile the air cargo market and air facilities that make up the air cargo system in Washington

Outcomes:
1. Overview of existing facilities and services
2. Interviews with existing Washington air cargo users
3. Review of global, national, regional and local air cargo flows and types of commodities being moved by air in Washington
 TASK 2: AIR CARGO CONGESTION

—Air cargo congestion threatens the competitiveness of important economic sectors
—Washington’s airports compete with other airports and modes
—Define and estimate the costs of air cargo congestion
Site Visits
Review Opportunities and Constraints

Develop criteria to:
— Compare competitive airports to Washington airports
— Evaluate the potential for Washington airports to attract:
  — Non-integrated all-cargo carriers
  — Integrated all-cargo carriers
  — International air freighter operators (scheduled and charters)
  — Third-party logistics companies

Evaluate the potential to market State airports to different carrier types based on strengths, weaknesses, opportunities and threats
Create a vision and strategy for air cargo and logistics services development in Washington
— Provide a list of actions necessary to implement the vision
— Identify priorities and responsibility for each action
— Include performance measures and proposed budget

The Washington State Air Cargo and Logistics Business Development Strategic Plan will include:
— Ways to provide capacity relief for Sea-Tac
— Role of other Washington airports in capacity relief
— Guidance to regional airports for expanding their markets
TASK 5: STAKEHOLDER PANEL AND STAFF WORKGROUP

Staff Workgroup
— Mostly legislative and agency staff members
— Guidance and input to technical methods and results
— Insight into the interests of their agencies/committees
— Collaborate on recommendations to the stakeholder panel

Stakeholder Panel
— Legislators, top agency officials and industry representatives
— Review the results and recommendations at a high level
— Focus on implications for their constituents
— Input on recommendations to JTC, the legislature and the governor, who will make final decisions
## Schedule

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Air Cargo Background
Cargo Industry Players

Supply-Distribution Chain

- Supplier
- Manufacturer
- Distributor
- Retailer
- End Consumer
- Reverse Logistics

Air Transportation/Logistics

- Shippers
- Forwarders (3PLs/4PLs)
- Customs brokers
- Consolidators
- Indirect carriers
- General Sales Agents
- Gov. postal authorities
- Motor carriers
- Air carriers
- Airports
- Cargo/Ground handlers
- Federal Inspection Agencies
- Consignees
Air Cargo Supply Chain is Complex

• Moving air freight may require up to 20 different documents and 7 or more companies to complete the movement from shipper to consignee.

• The process is getting more complicated, not less, due to additional requirements for security and safety.

Source: IATA e-freight fundamentals  GHA = Ground Handling Agent
Air Cargo Carriers

- **Combination Carriers (airport to airport)**
  - **Belly Cargo Carriers:**
    Delta, United, American, Southwest, etc.
  - **Pax Belly Cargo & Freighter Operators:**
    Korean Air, China Airlines, Air China, EVA, etc.

- **All-Cargo Carriers**
  - **Integrator / Express (door to door)**
    FedEx, UPS, SF
  - **Integrated Forwarder (door to door)**
    BaxGlobal, DHL, TNT, Amerex, Amazon.com, etc.
  - **Traditional Line Haul (airport to airport)**
    Kalitta, Cargolux, Polar, Yangtze River Express, etc.
Road Feeder Service

— Offered by a scheduled cargo operator to move its carried goods to and from the aircraft and/or terminal by road, allowing the carrier to offer service to a city to which it does not fly

— Purpose: To efficiently and effectively expand the global air cargo supply chain
Cargo Industry Status
Cargo growth more variable than passenger but recovering from the Great Recession

Source: IATA
Some Trends of Significance

— Continued use of freighters
— Restructuring of airline and forwarder business models
— Increased regulation and security compliance requirements
— Single Window Customs Entry
— B2C e-commerce
— E-freight initiatives
Freighters will remain the main players

60% of air cargo traffic carried on freighters

150 transpacific passenger flights carry the equivalent of only 10 freighter flights

Analysis of average daily flights from Asia to North America, year 2013

*Conversion takes into account destination, ranges, and load factor.
Top 20 US Air Cargo Airports 2016

Intl. air cargo is concentrated at major gateway airports

Source: ACI
Top WA State Air Cargo Airports 2014

Source: ACI and KPA analysis
Top West Coast Air Cargo Airports 2016

*Note: BFI does not report data to ACI

Source: ACI
The Airport Air Cargo Ecosystem

Air Cargo Users & Service Providers
- Shippers
- Forwarders
- Consolidators
- Brokers
- Warehouse operators
- Cross dock trucking
- Business park operators
- Financial services
- FTZ subzones
- Postal services
- Consignees
- Consumers

On-Airport Facilities/Services
- Airlines
- Ground handlers
- Terminal operators

Adjacent Off-Airport Facilities/Services

Off-off Airport Facilities/Services

Local Government

County/State Government

Intl. Sourcing & Production
Summary

— Air cargo growth has seen robust growth in 2016 but could be nearing a peak

— There are two major business models for air cargo carriers
  — integrator/express model
  — airport-to-airport model

— Trucking is of great importance to air cargo

— Airports should think beyond their boundaries in planning

— Airport cargo strategies are reliant on knowing your market and key airport and community objectives

— Partnering is a key to creating new airport business models
Next Steps

— Update Industry Trends
— Define Air Cargo Congestion
— Conduct Regional Market Analysis
— Review and Update Air Cargo Forecasts Inventory Existing Facilities
— Staff Workgroup meeting – November 30
— Stakeholder Panel meeting – December 8
DISCUSSION