

SEA-TAC AIR CARGO

February 23, 2016

SEA is the #1 cargo airport in the Pacific Northwest

- **Sea-Tac Airport ranking for cargo tonnage**
 - Ranked #19 in the United States by ACI for 2014
 - #1 in the Pacific Northwest
 - #3 on the West Coast (*just international freight*)
- **\$13.6 billion in international commodity trade (51.2% exports)**
 - Ranked #15 by US Dept of Commerce airport international trade statistics
- **Air cargo activity at Sea-Tac provides the region a \$22.7 billion economic value***
 - 119,685 related jobs
 - \$5.5 billion in wages & salaries
 - \$520.7 million in state & local taxes

*source: Martin Associates, 2013 Economic Impact of the Port of Seattle

Diverse international air trade network supported growth in 2015



Value and tonnage of important trade partners and commodities mostly increased in 2015 vs. 2014

Top Countries for Air Trade

By Dollar Value			By Metric Tons		
China	\$2.8B	+48.0%	China	29,292	+15.5%
United Kingdom	\$1.7B	-20.1%	Japan	13,295	+17.1%
Japan	\$1.5B	+11.3%	Korea, Republic of	10,572	+24.2%

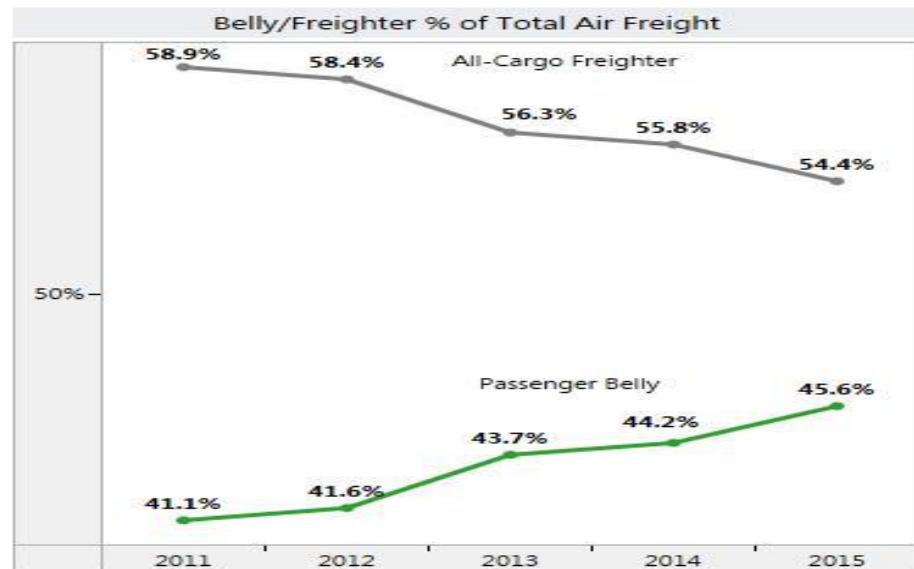
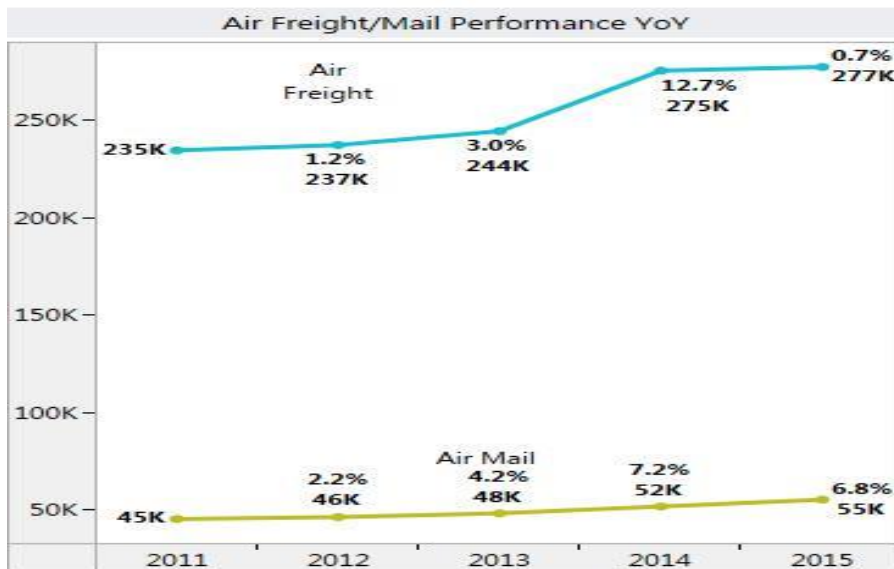
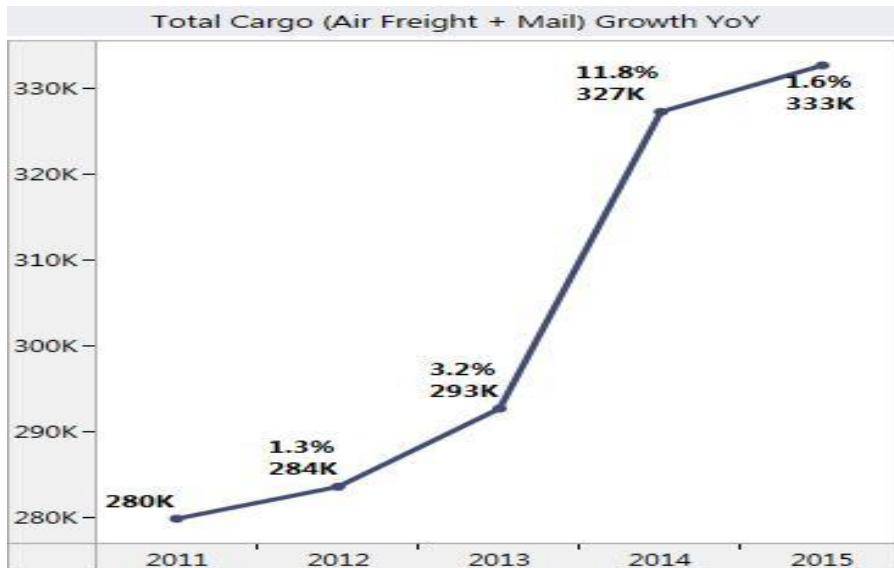
Top Air Trade Commodities

By Dollar Value			By Metric Tons		
Electrical Machinery	\$4.3B	+54.5%	Industrial Machinery	21,814	+9.8%
Industrial Machinery	\$3.9B	+4.5%	Electrical Machinery	17,588	-2.3%
Aerospace Parts/Equipment	\$1.8B	+12.7%	Fruit (Cherries)	14,991	-5.4%

Source: Wiser LLC

Historical trends: 2015 in review

Total cargo in 2015 up 1.6% over exceptional 2014



Recent hardstand projects provided critical near-term capacity

■ **Freighter activity**

- Five major airlines provide scheduled freighter service at Sea-Tac
 - Asiana, Cargolux, China Airlines, FedEx, and Korean Air
- Four new airlines conducted seasonal charter service in 2015
 - Atlas Air, China Cargo Airlines, Kalitta Air and Nippon Cargo Airlines
- In 2015 the Airport saw 10.2% more calls by the largest type of freighters (*Boeing 747s & Antonov 124s*), surpassing 1000 operations for the first time.

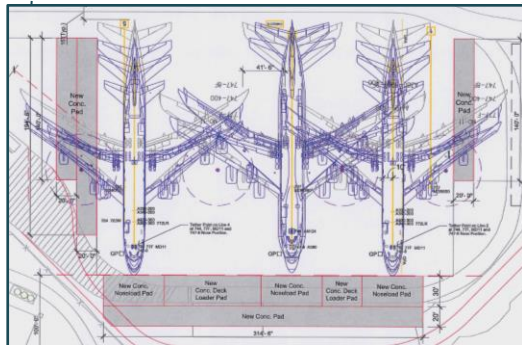
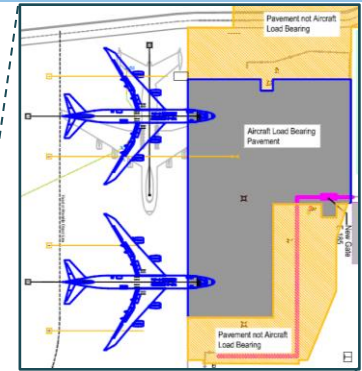
■ **Cargo 2 and Cargo 6 Freighter parking ramp expansion projects**

- Purpose: to extend hardstand to better accommodate increasing size and frequency of the largest freighter operations
- Construction approved by Commission in 2013
- Project Cost: \$23.1 million
- Status: Completed in 2015

Hardstand projects accommodate 747-8 nose load operations

■ Cargo 2 Hardstand Expansion project

- Demolished cargo warehouse
- Expanded hardstand to accommodate 2 Group VI freighters
- Added ground power



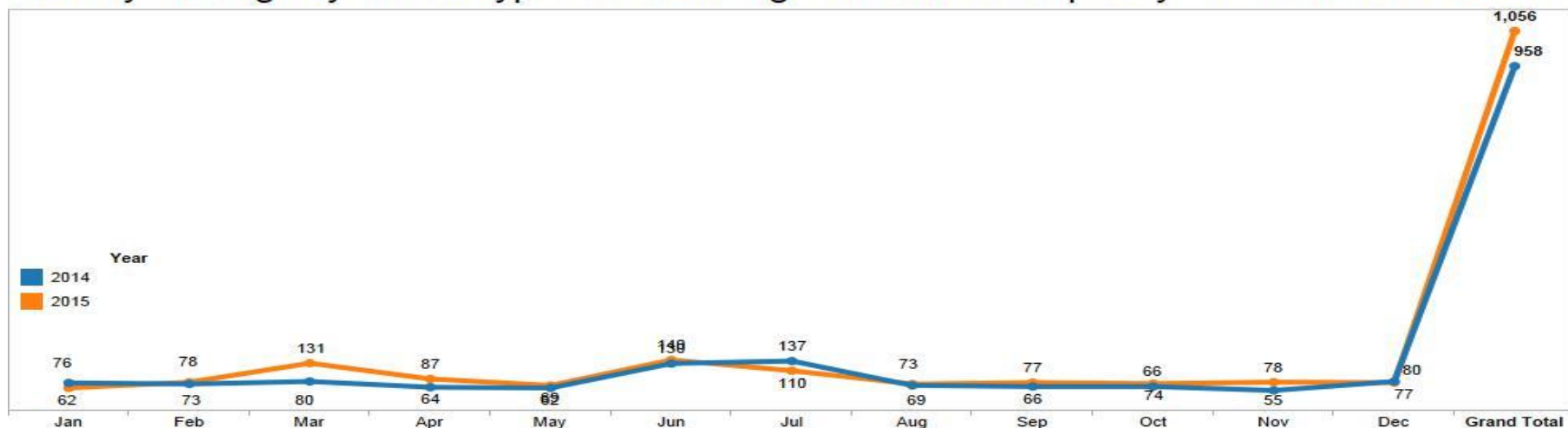
■ Cargo 6 Improvements project

- Expanded hardstand to accommodate 2 Group VI simultaneous nose load operations
- Added ground power
- Added fuel hydrant pits

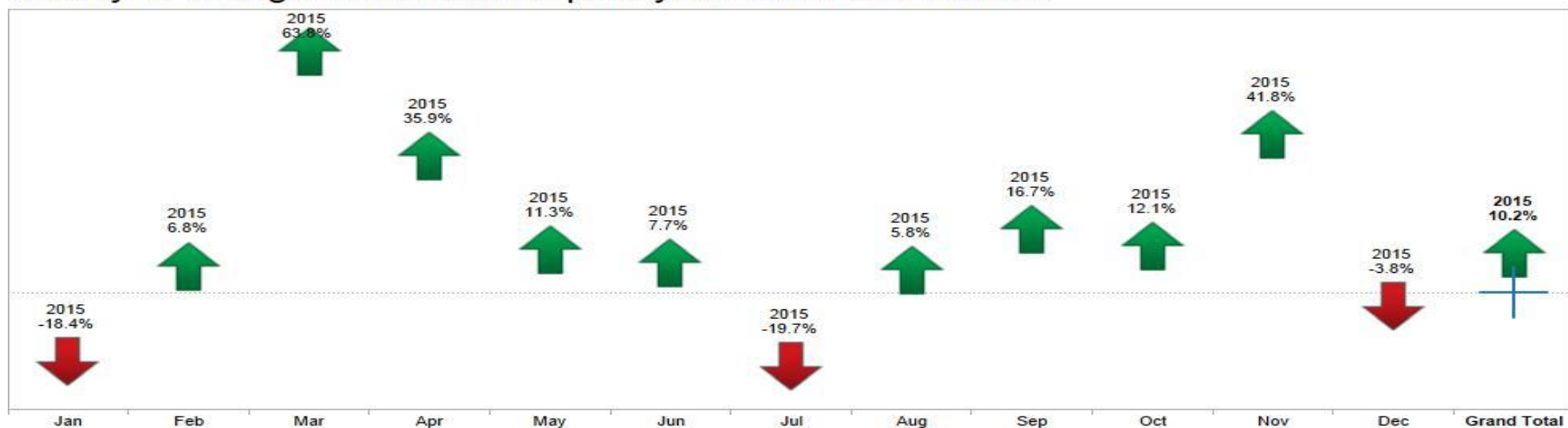
Capital projects: All-cargo Freighter Activity

Aircraft Activity- Large freighter aircraft activity growth continued in 2015

Monthly landings by aircraft type and % change from month of prior year: **B747 and AN124**



Activity % change from month of prior year: **B747 and AN124**



Warehouse locations spread across the airport



■ Cargo warehouse facilities

- 12 total on-airport cargo warehouses interspersed throughout ramp area
- Primarily serve as “pass-through” facilities
- Some accommodate “truck-to-truck” operations, ground service equipment maintenance and a variety of other functions
- Former United Airlines cargo building under evaluation for alternative use

■ Cargo hardstand facilities

- Recent hardstand projects provided capacity to meet near-term demand
- Passenger aircraft frequently remain over night on cargo hardstands

Air cargo objectives moving forward

- **Maximize future warehouse utilization through more efficient layout of facilities with adequate and balanced capacity**
 - Hardstand for aircraft parking in close proximity to airside of cargo warehouses
 - Cargo staging/loading areas on the airside of warehouses
 - Truck staging, maneuvering, and dock stations on landside of warehouses
 - Sufficient warehouse depth to facilitate cargo pass through operations and potentially accommodate mechanical infrastructure
- **Reserve adequate space to ensure flexibility for future cargo projects**
- **Maintain sufficient cargo warehouse and hardstand capacity throughout phased implementation of SAMP capital program**

Primary challenge – Phasing to meet on-going and long-term demand



- **Maintain sufficient cargo warehouse and hardstand capacity**
 - Terminal expansion impacts cargo facilities
 - Redevelopment of north cargo area impacts existing cargo facilities
 - Need slack capacity prior to redevelopment
 - Long lead time for South Aviation Support Area site preparation
- **Facilitate tenant relocations throughout phased redevelopment**
- **Facilitate trade and business growth to meet regional economic demand**