Regional Aviation Baseline Study

Study Objectives

• Identify the roles of each airport and the aviation activities within the region based on existing planning efforts

• Provide a regional perspective on how aviation activities at airports in the region interact with each other, the community and the broader economy

• Obtain input from stakeholders about their needs and build a common understanding about aviation and airspace constraints

• Identify future aviation needs within the central Puget Sound Region and set the stage for future planning
29 Regional Airports
Study Phases

Airport & Aviation Activity Analysis
(Summer 2019)

Today
- Market trends
- Regional forecasts

(Later in Summer 2019)
- Existing conditions & constraints
- Airspace flow analysis

Future Aviation Issues Analysis
(Fall/Winter 2019/2020)
- Future regional landside and airside capacity needs
- Future needs by activity and by airport
- Major challenges
- Economic analysis

Scenario Definition & Evaluation
(Spring/Summer 2020)
- Identify and analyze scenarios
- Identify potential next steps
- Publish final report (Fall 2020)
Market Trends and Regional Forecasts

- **Commercial**
  Scheduled passenger service

- **Air Cargo**
  Freight and mail carried in the lower hold of passenger aircraft and on dedicated freighters

- **General Aviation**
  Business, flight instruction, medical, emergency, law enforcement, recreation, and tourism

Forecasts represent unconstrained regional demand in 2050
• Aviation closely tied to national economic trends as well as regional economic and demographic trends.
• Recent population, employment and income growth is driving regional aviation demand and this trend is expected to continue.
• Sea-Tac is a growing hub for travel to Asia.
**Commercial Aviation Terminology**

- **Enplanements**: Passenger boarding plane for departure
- **Deplanements**: Passenger exiting plane for arrival
- **Total Passengers**: Enplanements + Deplanements
- **Operations**: Plane takeoffs + landings

An individual flying from Seattle, stopping in Atlanta to make a connection, and landing in Charleston equals a total of 4 Passengers Served (2 Deplanements + 2 Enplanements) and 4 Operations.

- **Seattle**
  - 1 Enplanement
  - 1 Passenger Served
  - 1 Operation

- **Atlanta**
  - 1 Deplanement
  - 1 Enplanement
  - 2 Passengers Served
  - 2 Operations

- **Charleston**
  - 1 Deplanement
  - 1 Passengers Served
  - 1 Operation
# Commercial Enplanement Comparison

<table>
<thead>
<tr>
<th>U.S. Airport Passenger Enplanements Ranking, 2017 (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hartsfield–Jackson Atlanta International Airport</td>
</tr>
<tr>
<td>2. Los Angeles International Airport</td>
</tr>
<tr>
<td>3. O’Hare International Airport</td>
</tr>
<tr>
<td>4. Dallas/Fort Worth International Airport</td>
</tr>
<tr>
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</tr>
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<td>9. Seattle–Tacoma International Airport</td>
</tr>
<tr>
<td>10. Charlotte Douglas International Airport</td>
</tr>
</tbody>
</table>

Source: Federal Aviation Administration
Commercial Enplanement Demand Forecast

Enplanements in the Central Puget Sound Region (millions)

2018: 24.0

2050: Unconstrained
- 55.6 (high forecast)
- 49.3 (low forecast)

Source: WSP USA Analysis
## Commercial Enplanement Demand Forecast

### U.S. Airport Passenger Enplanements Ranking, 2017 (millions)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Airport Name</th>
<th>IATA Code</th>
<th>Enplanements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hartsfield–Jackson Atlanta International Airport</td>
<td>ATL</td>
<td>50.3</td>
</tr>
<tr>
<td>2</td>
<td>Los Angeles International Airport</td>
<td>LAX</td>
<td>41.2</td>
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<tr>
<td>3</td>
<td>O’Hare International Airport</td>
<td>ORD</td>
<td>38.6</td>
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<tr>
<td>4</td>
<td>Dallas/Fort Worth International Airport</td>
<td>DFW</td>
<td>31.9</td>
</tr>
<tr>
<td>5</td>
<td>Denver International Airport</td>
<td>DEN</td>
<td>29.8</td>
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<tr>
<td>6</td>
<td>John F. Kennedy International Airport</td>
<td>JFK</td>
<td>29.5</td>
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<tr>
<td>7</td>
<td>San Francisco International Airport</td>
<td>SFO</td>
<td>26.9</td>
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<td>8</td>
<td>McCarran International Airport</td>
<td>LAS</td>
<td>23.4</td>
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<td>9</td>
<td>Seattle–Tacoma International Airport</td>
<td>SEA</td>
<td>22.5</td>
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<tr>
<td>10</td>
<td>Charlotte Douglas International Airport</td>
<td>CLT</td>
<td>22.0</td>
</tr>
</tbody>
</table>

Source: Federal Aviation Administration

2050 Forecast
- High: 55.6m
- Low: 49.3m
# Commercial Operations Comparison

## U.S. Airport Passenger Operations Ranking, 2017 (thousands)

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<tbody>
<tr>
<td>1</td>
<td>Hartsfield-Jackson Atlanta International Airport</td>
<td>ATL</td>
<td>880</td>
</tr>
<tr>
<td>2</td>
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<td>ORD</td>
<td>867</td>
</tr>
<tr>
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<td>575</td>
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<td>CLT</td>
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<td>JFK</td>
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<td>IAH</td>
<td>450</td>
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<td>11</td>
<td>Newark Liberty International Airport</td>
<td>EWR</td>
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<tr>
<td>12</td>
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<td>PXH</td>
<td>431</td>
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<tr>
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<td>Seattle-Tacoma International Airport</td>
<td>SEA</td>
<td>412</td>
</tr>
</tbody>
</table>

Source: Federal Aviation Administration
Commercial Operations Demand Forecast

Operations in the Central Puget Sound Region

- 2018: 438,000
- 2050: 914,000 (high forecast)
- 2050: 810,000 (low forecast)

Source: WSP USA Analysis
## Commercial Operations Demand Forecast

### U.S. Airport Passenger Operations Ranking, 2017 (thousands)

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Source: Federal Aviation Administration

2050 Forecast
High: 914k
Low: 810k
General Aviation Trends

• General aviation has been in a gradual decline for decades nationally.

• Increasing costs, competition from other activities, and even lower airfares have resulted in fewer pilots and fewer hours flown by general aviation.

• In contrast to overall trends, business and for profit aviation activities show signs of improvement. This is only a small segment of GA activity, however.

• Aircraft maintenance technician numbers in the region are declining.

• Student pilots grew faster in Puget Sound (46 percent increase) than the national average (24 percent increase) from 2012 to 2017.
General Aviation Demand Forecast

General Aviation Operations in the Central Puget Sound Region

- 2017: 1,351,000
- 2050: 1,806,000 (Unconstrained)

Source: FAA ATADS, NFDC, FAA Aerospace Forecast, and WSP
General Aviation Demand Forecast

General Aviation Operations Forecast by Airport

Source: FAA ATADS, NFDC, FAA Aerospace Forecast, and WSP
Airports with substantial recreational activity are expected to experience little or no growth.

Ex: Auburn, Thun, Harvey

Airports with significant business or for profit activity are expected to experience growth.

Ex: Arlington, Bremerton, Paine Field, Norman Grier, Renton, Boeing Field, Tacoma Narrows along with seaplane operations in Kenmore and Lake Union
Air Cargo Demand Forecast

Commercial Air Cargo Handled in the Central Puget Sound Region (metric tons)

- 2018: 552,000
- 2050: 1,300,000 Unconstrained

Source: WSP USA Analysis
Air Cargo Trends

• Air cargo at Sea-Tac and King County International Airport increased by 40% from 2012 to 2017.

• Globalization and e-commerce are international trends that are driving dramatic air cargo growth.

• Strong Washington state exports and the increase in international flights at SeaTac have further spurred regional air cargo growth.

• Tariffs and the cooling of the international economy are expected to slow growth in the short term.

• Continued globalization, e-commerce and a robust regional economy are expected to catalyze air cargo demand in the long term.
Study Phases/Next Steps

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  (Fall 2020)

**Upcoming**

Statewide Commercial Aviation Coordinating Commission: Charged with selecting site(s) by 2022
Thank you

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