Slides Updated from PAC Meeting #3

**Based Aircraft Slides**
- Current Base Aircraft (#19)
- Based Registration Location (#20)
- Based Aircraft Forecast (#22)
- Based Aircraft Fleet Mix (#23)

**Operations Slides**
- Hillsboro Itinerant GA Operations Forecast (#27)
- Hillsboro Local GA Operations Forecast (#28)
- Hillsboro Total Operations Forecast Summary (#31)
- Airport Peak Activity (#32)
- Operations and Based Aircraft Forecast Summary (#33)
- Fleet Mix Operations (#34)
Forecast Considerations
Questions to Answer

• What is the purpose of preparing forecasts?
• What types of forecasts are prepared?
• What are the drivers and trends of aviation demand?
• How does the FAA determine that forecasts are reasonable for long term planning?
• How will forecasts be used to guide decisions about future development?
• What happens if significant deviations develop between the forecast and actual numbers in the future?
Forecast Purpose and Process

- Forecasts: Basis for effective decision making in airport planning.
- Projections: Determine need for new or expanded facilities based upon demand.
- 20-Year forecast for master plans: 2016 (base year), 2021, 2026, 2036 (FAA)
- Forecast elements for Hillsboro Airport: Based Aircraft and Operations
- Approach: Multiple forecasts → planning envelope → selected forecast.
- Methods: Trend-line analysis, regression analysis, market share analysis, etc.
  - FAA: Keep it simple
- Requires both analytical and judgmental processes.
- Compare total based aircraft and total operations to the FAA Terminal Area Forecast (TAF) for consistency:
  - Within 10% in 5-year
  - Within 15% in 10-year
- FAA to review and approve the forecasts.
Forecast Categories

Based Aircraft
- Total Based Aircraft
- Based Aircraft Fleet Mix

Operations
- General Aviation (Itinerant and Local)
- Air Taxi (Itinerant)
- Military (Itinerant and Local)
- Peaking Characteristics
  - Peak Month
  - Design Day
  - Busy Day
  - Design Hour

Operations Fleet Mix
- Single Engine Piston
- Multi-engine Piston
- Turboprop
- Jet
- Helicopters

Critical Design Aircraft
- Leads to applicable design standards for runway, taxiways, etc.
FAA Forecast Process

7 Standard Steps in the Forecast Process
- Identify Aviation Activity Measures
- Review Previous Airport Forecasts
- Gather Data
- Select Forecast Methods
- Apply Forecast Methods and Evaluate Results
- Summarize and Document Results
- Compare Forecast Results with FAA’s TAF
Forecast Inputs and Methods

**INPUTS**
- FAA’s annual aerospace forecasts 2017-2037
  - Active general aviation aircraft
  - General aviation operations
  - Active pilots
  - Hours flown
- Socioeconomic data
  - Population, employment, income, etc.
- Aircraft ownership
  - Area registered aircraft
- Historical trends
  - HIO operations
  - HIO based aircraft

**METHODS**
- Trend Line: “Fit” a projection line over historical data and extend into the future.
- Regression: Dependent (aviation demand) and Independent variables (socioeconomic).
- Market Share Analysis: Extend the % share of a known ratio.
- Growth Rate Analysis: Apply a known historical growth rate to aviation elements.
Economic Assumptions

- Forecasts rely on four key assumptions about future economic conditions that may affect aviation activity.

- U.S. GDP through 2037: 2.1% annually
- Oil Prices:
  - $39 per barrel in 2016
  - $47 per barrel in 2017
  - $101 per barrel in 2026
  - $131 per barrel in 2037
- Portland Metro socioeconomic measures will trend as forecast.
- FAA aviation measures will trend as forecast.
Previous Forecasts Considered

- 2005 Master Plan
- 2010 Environmental Assessment
- 2014 Supplemental Environmental Assessment (2011 baseline)

- Previous forecasts inform development of new forecasts.
- FAA recommends updating forecasts and airport planning document every 7-10 years or when there have been significant changes in the local or national aviation industry.

# Historic and Forecast Socioeconomic Data

<table>
<thead>
<tr>
<th>Year</th>
<th>Population²</th>
<th>Employment (Non-farm)²</th>
<th>Households²</th>
<th>Income (PCPI)³</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1,927,881</td>
<td>973,230</td>
<td>746,625</td>
<td>$37,407</td>
</tr>
<tr>
<td>2010</td>
<td>2,226,009</td>
<td>968,830</td>
<td>857,379</td>
<td>$39,087</td>
</tr>
<tr>
<td>2011¹</td>
<td>2,248,834</td>
<td>993,756</td>
<td>865,041</td>
<td>$40,178</td>
</tr>
<tr>
<td>2012¹</td>
<td>2,271,894</td>
<td>1,019,323</td>
<td>872,771</td>
<td>$41,366</td>
</tr>
<tr>
<td>2013¹</td>
<td>2,295,190</td>
<td>1,045,548</td>
<td>880,571</td>
<td>$40,921</td>
</tr>
<tr>
<td>2014¹</td>
<td>2,318,725</td>
<td>1,072,448</td>
<td>888,440</td>
<td>$41,973</td>
</tr>
<tr>
<td>2015</td>
<td>2,342,501</td>
<td>1,100,040</td>
<td>896,379</td>
<td>$42,658</td>
</tr>
<tr>
<td>2016¹</td>
<td>2,376,813</td>
<td>1,124,544</td>
<td>912,674</td>
<td>$43,266</td>
</tr>
<tr>
<td><strong>CAGR 2000-2016</strong></td>
<td><strong>1.32%</strong></td>
<td><strong>0.91%</strong></td>
<td><strong>1.26%</strong></td>
<td><strong>0.91%</strong></td>
</tr>
<tr>
<td>2020</td>
<td>2,519,163</td>
<td>1,228,140</td>
<td>980,872</td>
<td>$45,679</td>
</tr>
<tr>
<td>2025</td>
<td>2,671,777</td>
<td>1,311,570</td>
<td>1,055,978</td>
<td>$48,733</td>
</tr>
<tr>
<td>2030</td>
<td>2,814,058</td>
<td>1,399,790</td>
<td>1,125,755</td>
<td>$51,560</td>
</tr>
<tr>
<td>2035</td>
<td>2,937,885</td>
<td>1,484,460</td>
<td>1,187,311</td>
<td>$54,046</td>
</tr>
<tr>
<td>2040</td>
<td>3,052,078</td>
<td>1,571,290</td>
<td>1,244,034</td>
<td>$56,459</td>
</tr>
<tr>
<td><strong>CAGR 2016-2040</strong></td>
<td><strong>1.05%</strong></td>
<td><strong>1.40%</strong></td>
<td><strong>1.30%</strong></td>
<td><strong>1.12%</strong></td>
</tr>
</tbody>
</table>

¹Interpolated figures for population, employment, and households  
²Metro Research Center (2014 update)  
³Woods & Poole Economics  
CAGR: Compound Annual Growth Rate  
PCPI: Per Capita Personal Income
FAA Aviation Industry Forecasts

FAA prepares long range forecasts which are updated annually. The following five slides present relevant forecast trends used in this forecast as projected by FAA:

- U.S. General Aviation Forecast
- U.S. General Aviation Hours Flown
- U.S. Pilots by Type of Certificate Held
- U.S. General Aviation Operations Forecast
- U.S. Air Taxi Operations Forecast
U.S. General Aviation Aircraft Forecast (FAA)

- 2010-2013 FAA re-registration removed many inactive aircraft
- 2014 first increase since 2008
- 210,000 active aircraft in 2015 was an increase of 2.8% over 2014
- Pistons forecast to decline (-0.08%).
- Turboprops to decline through 2022 then return to growth (1.4%)
- Jets increasing 3.1% from 2010-2016 and forecast to increase 2.3% annually through 2037
- Helicopters to increase 1.6% annually
- Total turbine: 1.9% annually
- Total fleet: 0.1% annually
U.S. General Aviation Hours Flown Forecast (FAA)

- Total hours flown: 0.9% annually as newer aircraft fly more hours.
- Turbine: 2.5% annually, more than offsetting losses by piston aircraft. Jet portion growing at 3.0% annually due to fleet growth and higher utilization rates.
- Helicopters: 2% annually.
U.S. Pilots by Type of Certificate Forecast (FAA)

- Total pilots forecast to grow 0.1% annually.
- 584,000 certified pilots in 2016
- Private pilot decrease primarily due to cost.
- 2010 regulatory rule increased the term of a student certificate from 36 to 60 months.
- 2013 regulatory rule that second in command have an ATP certificate not just a commercial pilot certificate which required 1,500 more hours.

Forecast Inputs
• Total GA Operations: 0.3% annually.
• GA operations account for 51% of all aircraft operations.
• Turbine increases more than offset decline in piston operations.
U.S. Air Taxi Operations Forecast (FAA)

- Aircraft with less than 60 seats.
- Includes: Air cargo, air ambulance, fractionals, some charters.
- Decline primarily due to regional airline fleet transition to higher seating capacity.
- Corporate shuttle operations are counted as air taxi at Hillsboro.
Questions About Forecast Inputs and Methods?
• Establish a baseline number and fleet mix.
• Examine aircraft ownership in the region and project registered aircraft into future plan years.
• Use registered aircraft projection as an input to based aircraft forecast.
• The based aircraft forecast helps to determine facility requirements such as hangar and apron needs and applicable design standards.
• 354 aircraft based at Hillsboro.
• 49 jets including most large business jets types in the national fleet.
• Jets have the highest economic impact.
• Jets have the greatest impact on airport design standards.
• Airport maintains design standards triggered by large business jets.
Based Registration Location

• Washington, Clackamas, Multnomah: 81% of based aircraft.

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>NUMBER OF AIRCRAFT</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington County</td>
<td>200</td>
<td>56.5</td>
</tr>
<tr>
<td>Multnomah County</td>
<td>68</td>
<td>19.2</td>
</tr>
<tr>
<td>Clackamas County</td>
<td>17</td>
<td>4.8</td>
</tr>
<tr>
<td>Marion County</td>
<td>8</td>
<td>2.3</td>
</tr>
<tr>
<td>Deschutes County</td>
<td>6</td>
<td>1.7</td>
</tr>
<tr>
<td>Yamhill County</td>
<td>5</td>
<td>1.4</td>
</tr>
<tr>
<td>Other Oregon</td>
<td>20</td>
<td>5.6</td>
</tr>
<tr>
<td>Other WA State</td>
<td>4</td>
<td>1.1</td>
</tr>
<tr>
<td>Out of state (1 Foreign)</td>
<td>26</td>
<td>7.3</td>
</tr>
<tr>
<td><strong>Total Based Aircraft</strong></td>
<td><strong>354</strong></td>
<td></td>
</tr>
</tbody>
</table>

• Proximity is typically the #1 reason why someone chooses an airport.
Area Registered Aircraft Forecast

- Washington, Clackamas, Multnomah, Yamhill combined.
- Modest but steadily increasing trend until the 2007-2009 recession.
- Industry observers believe we have bottomed out (Kiplinger).
- Five (5) forecasts represent the planning envelope.
- Selected forecast is an approximate average (no obvious outliers).
- 507 new registered aircraft over next 20 years.
- Growth Rate in 4-county Area = 0.93%
Based Aircraft Forecast

- Six forecasts form the planning envelope.
- Two based on registered aircraft forecast.
- Two based on population ratio.
- State TAF growth rate (1.07%).
- HIO TAF growth rate (1.62%).
- Selected is an approximate average.
- 91 new based aircraft over the next 20 years.
- Growth Rate = 1.15%

TAF: Terminal Area Forecast (FAA)
Based Aircraft Fleet Mix

- Piston aircraft to continue to dominate the based fleet
- Multi-engine piston aircraft to hold steady
- Modest growth in turboprops and jets
- Larger aircraft need more planned space for hangars and aprons
Operations Forecast

Purpose of Operations Forecast
• Input into capacity model
• Input into noise and emissions model (AEDT)
• Informs airfield facility requirements

Elements of Operations Types included in Total Operations
• Segmented by Local vs. Itinerant Operations
• Further segmented by General Aviation, Air Taxi, Military
• Forecasts are developed by segment, then combined to create the total operations forecast
Historical Operations at Hillsboro

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>244,511</td>
</tr>
<tr>
<td>2001</td>
<td>235,383</td>
</tr>
<tr>
<td>2002</td>
<td>223,589</td>
</tr>
<tr>
<td>2003</td>
<td>218,118</td>
</tr>
<tr>
<td>2004</td>
<td>192,833</td>
</tr>
<tr>
<td>2005</td>
<td>219,227</td>
</tr>
<tr>
<td>2006</td>
<td>211,493</td>
</tr>
<tr>
<td>2007</td>
<td>238,605</td>
</tr>
<tr>
<td>2008</td>
<td>260,957</td>
</tr>
<tr>
<td>2009</td>
<td>222,271</td>
</tr>
<tr>
<td>2010</td>
<td>220,213</td>
</tr>
<tr>
<td>2011</td>
<td>214,243</td>
</tr>
<tr>
<td>2012</td>
<td>202,967</td>
</tr>
<tr>
<td>2013</td>
<td>215,861</td>
</tr>
<tr>
<td>2014</td>
<td>221,932</td>
</tr>
<tr>
<td>2015</td>
<td>186,402</td>
</tr>
<tr>
<td>2016</td>
<td>197,763</td>
</tr>
</tbody>
</table>
# Historic Operations by Type at Hillsboro

<table>
<thead>
<tr>
<th>Date</th>
<th>Air Carrier</th>
<th>Air Taxi</th>
<th>GA</th>
<th>MIL</th>
<th>Total</th>
<th>Local</th>
<th>MIL</th>
<th>Total</th>
<th>Total Ops</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>0</td>
<td>7,230</td>
<td>83,201</td>
<td>1,103</td>
<td>91,534</td>
<td>151,645</td>
<td>1,332</td>
<td>152,977</td>
<td>244,511</td>
</tr>
<tr>
<td>2001</td>
<td>12</td>
<td>7,931</td>
<td>84,639</td>
<td>873</td>
<td>93,455</td>
<td>141,880</td>
<td>48</td>
<td>141,928</td>
<td>235,383</td>
</tr>
<tr>
<td>2002</td>
<td>6</td>
<td>9,078</td>
<td>82,493</td>
<td>426</td>
<td>92,003</td>
<td>131,495</td>
<td>91</td>
<td>131,586</td>
<td>223,589</td>
</tr>
<tr>
<td>2003</td>
<td>0</td>
<td>9,386</td>
<td>78,942</td>
<td>450</td>
<td>88,778</td>
<td>129,141</td>
<td>199</td>
<td>129,340</td>
<td>218,118</td>
</tr>
<tr>
<td>2004</td>
<td>0</td>
<td>8,287</td>
<td>72,444</td>
<td>834</td>
<td>81,565</td>
<td>111,250</td>
<td>18</td>
<td>111,268</td>
<td>192,833</td>
</tr>
<tr>
<td>2005</td>
<td>0</td>
<td>9,689</td>
<td>68,940</td>
<td>227</td>
<td>78,565</td>
<td>140,311</td>
<td>60</td>
<td>140,371</td>
<td>219,227</td>
</tr>
<tr>
<td>2006</td>
<td>0</td>
<td>8,773</td>
<td>65,008</td>
<td>262</td>
<td>74,043</td>
<td>137,421</td>
<td>29</td>
<td>137,450</td>
<td>211,493</td>
</tr>
<tr>
<td>2007</td>
<td>3</td>
<td>6,571</td>
<td>69,755</td>
<td>219</td>
<td>76,548</td>
<td>162,032</td>
<td>25</td>
<td>162,057</td>
<td>238,605</td>
</tr>
<tr>
<td>2008</td>
<td>0</td>
<td>7,615</td>
<td>76,256</td>
<td>268</td>
<td>84,139</td>
<td>176,791</td>
<td>27</td>
<td>176,818</td>
<td>260,957</td>
</tr>
<tr>
<td>2009</td>
<td>0</td>
<td>5,749</td>
<td>68,724</td>
<td>295</td>
<td>74,768</td>
<td>147,478</td>
<td>25</td>
<td>147,503</td>
<td>222,271</td>
</tr>
<tr>
<td>2010</td>
<td>0</td>
<td>5,738</td>
<td>63,619</td>
<td>176</td>
<td>69,533</td>
<td>149,579</td>
<td>1,101</td>
<td>150,680</td>
<td>220,213</td>
</tr>
<tr>
<td>2011</td>
<td>4</td>
<td>6,235</td>
<td>69,770</td>
<td>330</td>
<td>76,339</td>
<td>137,822</td>
<td>82</td>
<td>137,904</td>
<td>214,243</td>
</tr>
<tr>
<td>2012</td>
<td>16</td>
<td>6,283</td>
<td>68,696</td>
<td>383</td>
<td>75,378</td>
<td>127,555</td>
<td>34</td>
<td>127,589</td>
<td>202,967</td>
</tr>
<tr>
<td>2013</td>
<td>5</td>
<td>3,884</td>
<td>70,187</td>
<td>376</td>
<td>74,452</td>
<td>141,387</td>
<td>22</td>
<td>141,409</td>
<td>215,861</td>
</tr>
<tr>
<td>2014</td>
<td>14</td>
<td>4,322</td>
<td>76,453</td>
<td>236</td>
<td>81,025</td>
<td>140,889</td>
<td>18</td>
<td>140,907</td>
<td>221,932</td>
</tr>
<tr>
<td>2015</td>
<td>35</td>
<td>4,405</td>
<td>71,144</td>
<td>367</td>
<td>75,951</td>
<td>110,446</td>
<td>5</td>
<td>110,451</td>
<td>186,402</td>
</tr>
<tr>
<td>2016</td>
<td>12</td>
<td>4,352</td>
<td>77,778</td>
<td>268</td>
<td>82,410</td>
<td>115,332</td>
<td>21</td>
<td>115,353</td>
<td>197,763</td>
</tr>
</tbody>
</table>

Hillsboro control tower counts (6:00 a.m. – 10:00 p.m.)
Hillsboro Itinerant GA Operations Forecast

- Six forecasts form the planning envelope.
- Two based on FAA forecast of US itinerant operations.
- Two based on operations per based aircraft.
- One based on the 8-year growth trend.
- Selected is an approximate average.
- Growth Rate = 0.99%
Hillsboro Local GA Operations Forecasts

- Five forecasts form the planning envelop.
- Two based on FAA forecast of US local operations.
- Two based on operations per based aircraft.
- One based on FAA national growth trend.
- Selected: As a training and reliever airport, our judgement is to reflect an increasing share of US local operations.
- Growth Rate = 1.24%
Hillsboro Air Taxi Operations Forecast

- Air taxi: Corporate shuttles, air ambulance, fractionals, and other “for-hire” activity.
- Corporate shuttle accounts for an average of 2,900 annual operations and no change is anticipated.
- Hillsboro facilities are well suited for air taxi activity.
- Selected forecast includes corporate shuttle and a modest growth in “other air taxi”.
- Growth Rate = 0.68%

Growth Rate = 0.68%
- Military mission can change.
- FAA does not forecast military operations
- Typically, held constant at an observed average
- Forecast for Hillsboro is 400 military operations annually:
  - 100 local
  - 300 itinerant
Airport Peak Activity

- Several aspects of facility planning are related to times when the airport is busiest including:
  - Apron needs
  - Capacity determination
  - Terminal needs

- Peak Month (August): Absolute peak in a given year. All other peaks will be exceeded at times.
- Design Day: Peak month divided by days in the month (31)
- Busy Day: Factor of the four busiest days of each week in the peak month (1.27 * Design Day)
- Design Hour: Determined to be 11.02 percent of the design day (10-11 a.m.)

Coffman Associates analysis of tower operation counts.

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2021</th>
<th>2026</th>
<th>2036</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual</strong></td>
<td>197,763</td>
<td>208,100</td>
<td>220,600</td>
<td>247,700</td>
</tr>
<tr>
<td><strong>Peak Month (11.17%)</strong></td>
<td>22,085</td>
<td>23,245</td>
<td>24,641</td>
<td>27,688</td>
</tr>
<tr>
<td><strong>Busy Day</strong></td>
<td>903</td>
<td>952</td>
<td>1,009</td>
<td>1,133</td>
</tr>
<tr>
<td><strong>Design Day</strong></td>
<td>712</td>
<td>750</td>
<td>795</td>
<td>893</td>
</tr>
<tr>
<td><strong>Design Hour (11.02%)</strong></td>
<td>79</td>
<td>83</td>
<td>88</td>
<td>98</td>
</tr>
</tbody>
</table>

Operations Forecast
• Modest growth of slightly over 1.0% for based aircraft and operations.
• Appears that the decline in operations since the 2007-2009 recession has bottomed out.
• To be translated to facility requirements.
Fleet Mix Operations

Purpose
- Airfield capacity
- Noise analysis
- Air quality analysis
- Airfield design standards

Assumptions/Estimates
- Helicopters: 30% of Ops (ANOMS interpretation)
- Jets: FAA TFMSC
- Turboprops: 250 Ops per based turboprop
- Multi-Piston: 200 Ops per based multi-piston

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2021</th>
<th>2026</th>
<th>2036</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local Operations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piston</td>
<td>62,438</td>
<td>66,193</td>
<td>71,058</td>
<td>81,477</td>
</tr>
<tr>
<td>Multi-Piston</td>
<td>2,916</td>
<td>2,916</td>
<td>2,916</td>
<td>2,800</td>
</tr>
<tr>
<td>Turboprop</td>
<td>400</td>
<td>600</td>
<td>800</td>
<td>1,200</td>
</tr>
<tr>
<td>Helicopter</td>
<td>49,599</td>
<td>52,191</td>
<td>55,326</td>
<td>62,123</td>
</tr>
<tr>
<td>Total Local</td>
<td>115,353</td>
<td>121,900</td>
<td>130,100</td>
<td>147,600</td>
</tr>
<tr>
<td><strong>Itinerant Operations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Piston</td>
<td>54,446</td>
<td>56,277</td>
<td>58,762</td>
<td>64,213</td>
</tr>
<tr>
<td>Multi-Piston</td>
<td>2,084</td>
<td>2,084</td>
<td>2,084</td>
<td>2,000</td>
</tr>
<tr>
<td>Turboprop</td>
<td>3,850</td>
<td>4,400</td>
<td>4,700</td>
<td>5,800</td>
</tr>
<tr>
<td>Jet</td>
<td>12,300</td>
<td>13,200</td>
<td>14,100</td>
<td>15,900</td>
</tr>
<tr>
<td>Helicopters</td>
<td>9,730</td>
<td>10,239</td>
<td>10,854</td>
<td>12,187</td>
</tr>
<tr>
<td>Total Itinerant</td>
<td>82,410</td>
<td>86,200</td>
<td>91,500</td>
<td>100,100</td>
</tr>
<tr>
<td>Total Operations</td>
<td>197,763</td>
<td>208,100</td>
<td>220,600</td>
<td>247,700</td>
</tr>
</tbody>
</table>

Source: Calculations and analysis.
Critical Design Aircraft Selection

• Determines applicable design standards
• 500 or more annual operations
• Each runway has a critical design aircraft

• Aircraft are classified based up on:
  - **Approach Category** (A-E, approach speed):
    Runway related standards such as width, RSA, ROFA, RPZ, separation.
  - **Airplane Design Group** (I-VI, wingspan/tail height):
    Separation standards, TSA, TOFA, wingtip clearance.
  - **Taxiway Design Group** (1-7, Main wheel gear separation):
    Taxiway width, shoulder width, fillet dimensions.
Critical Aircraft Determination

- Hillsboro Airport current aircraft types that take off or land at least 500 times each year include the categories seen in the graphic to the right.
- The highlighted box indicates the largest and most demanding aircraft
- Design standards will be met for C-III and D-III aircraft weighing less than 150,000 pounds
- Actual historic operations by jets shown on the next slide
# Historic Jet Operations at Hillsboro

## APPROACH CATEGORY

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0</td>
<td>13</td>
<td>47</td>
<td>103</td>
<td>103</td>
<td>99</td>
<td>507</td>
<td>713</td>
<td>681</td>
<td>856</td>
</tr>
<tr>
<td>B</td>
<td>1,391</td>
<td>1,215</td>
<td>1,030</td>
<td>1,100</td>
<td>1,082</td>
<td>1,088</td>
<td>1,160</td>
<td>1,315</td>
<td>1,533</td>
<td>1,530</td>
</tr>
<tr>
<td>C</td>
<td>5,604</td>
<td>5,762</td>
<td>5,310</td>
<td>5,437</td>
<td>5,646</td>
<td>5,706</td>
<td>5,362</td>
<td>5,479</td>
<td>5,577</td>
<td>5,588</td>
</tr>
<tr>
<td>D</td>
<td>299</td>
<td>339</td>
<td>195</td>
<td>213</td>
<td>201</td>
<td>194</td>
<td>175</td>
<td>193</td>
<td>229</td>
<td>162</td>
</tr>
<tr>
<td>E</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>7,298</td>
<td>7,336</td>
<td>6,586</td>
<td>6,853</td>
<td>7,035</td>
<td>7,087</td>
<td>7,204</td>
<td>7,700</td>
<td>8,021</td>
<td>8,136</td>
</tr>
</tbody>
</table>

## DESIGN GROUP

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2,360</td>
<td>2,247</td>
<td>1,778</td>
<td>1,870</td>
<td>1,953</td>
<td>1,968</td>
<td>2,181</td>
<td>2,305</td>
<td>2,451</td>
<td>2,350</td>
</tr>
<tr>
<td>II</td>
<td>4,497</td>
<td>4,617</td>
<td>4,262</td>
<td>4,296</td>
<td>4,339</td>
<td>4,412</td>
<td>4,464</td>
<td>4,612</td>
<td>4,766</td>
<td>4,774</td>
</tr>
<tr>
<td>III</td>
<td>438</td>
<td>468</td>
<td>541</td>
<td>685</td>
<td>743</td>
<td>707</td>
<td>558</td>
<td>783</td>
<td>804</td>
<td>1,012</td>
</tr>
<tr>
<td>IV</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>V</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>7,298</td>
<td>7,336</td>
<td>6,586</td>
<td>6,853</td>
<td>7,035</td>
<td>7,087</td>
<td>7,204</td>
<td>7,700</td>
<td>8,021</td>
<td>8,136</td>
</tr>
</tbody>
</table>

TFMSC: Traffic Flow Management System Count (FAA database)
ARC: Aircraft Reference Code