The Ohio State University Airport Master Plan Update
Technical Advisory Committee Meeting 2

Date: Monday, March 5, 2018
Time: 2:00 - 4:00 p.m.
Location:
Ohio State Airport, Aerospace Research Center Classroom
2300 West Case Rd.
Columbus, OH 43235

Meeting Summary

Meeting Purpose
- To review public/stakeholder input to date
- To receive overall project and schedule updates
- To comment and discuss:
  - Inventory of existing conditions
  - Aviation activity forecasts

Meeting Overview
Doug Hammon (The Ohio State University Airport) and Kimberly Moss (The Ohio State University) welcomed everyone to the meeting. Marie Keister (Engage Public Affairs) then asked everyone to introduce themselves. Following introductions Marie reviewed the meeting purpose, format and discussion guidelines. The Airport mission, master plan purpose, study area and schedule were recapped.

Marie then provided a recap of the public and stakeholder input collected to date – highlighting strengths, weaknesses, vision and the definition of master plan success for the airport across three groups of stakeholders and the public. She noted similarities and differences among the input from the various groups (Community Outreach Council, Technical Advisory Committee and Public Meeting 1).

Maria Muia (Woolpert) provided an overview of the Draft Inventory of Existing Conditions. The Ohio State University Airport (Ohio State Airport) is recognized by the Federal Aviation Administration (FAA) as a National Priority general aviation (GA) Level 1 airport, which is also a reliever airport to John Glenn International (CMH). Serving many uses, the Ohio State Airport will welcome a new 29,000 sf. terminal building, adding to the 23 existing airport buildings. A summary concluded that 91 percent of these buildings are in good or average shape, while nine percent are poor. The Draft Inventory also counted aircraft (131) and automobile (180) parking spaces, service equipment, emergency facilities, FAA airspace (Class D), air traffic control tower operations (ranked #186 of #515 in US), instrument approach procedures, weather reporting, average daily operations (Wednesday is peak day), aircraft fueling (8 fuel tanks), de-icing and maintenance. In response to a suggestion made by the public, it was noted that the runway at the Transportation Research Center (TRC) owned by The Ohio State University in East Liberty, Ohio is not adequate for regular flight operations.

Maria also provided findings from a non-scientific User Survey that was conducted fall, 2017. Of the survey responders that flew aircraft, 85% used single-engine prop planes (85 percent), followed by jets (nine percent). Users rated overall airport service as Good (42 percent), Excellent (36 percent), Average (16 percent) and Poor (six percent). Forty-six percent of the survey responders used the airport for either business or education, followed by Recreation (39 percent) and Other (15 percent). Airport Facilities were also rated by survey respondents with
41 percent believing them to be in Good operation, Average (33 percent), Excellent (13 percent) and Poor (13 percent). Tables of these findings are shown below.
Sarah Arnold (Marr Arnold Planning) then presented the draft aviation activity forecast for the Ohio State Airport. The forecast included a review of historic and current activity and trends that could influence future airport growth.

Metrics included:
- Based aircraft and operations activity
- Population, employment, per capita income
- National general aviation trends
- Nearby competing airports (regional)
It should be noted that the decrease in based aircraft from 1990 to 1991 was the result of the Ohio National Guard helicopter operations moving to Rickenbacker International Airport (LCK). The decrease in activity after 2007 is consistent with decreases across the United States due to the Great Recession. The increase during 2017 is largely attributed to the addition of new hanger space.

Sarah then explained the draft forecast process, methodology and conclusions.

Forecast Process:
- Short term (2022), mid term (2027) and long term (2037)
- Used a variety of methodologies based on trends analysis
- Preferred based aircraft projection: Linear Trendline method (2.3% 2037 variation from TAF)

The TAF is the official FAA forecast of aviation activity for U.S. airports. Forecasts are considered "consistent with the TAF" if they differ by less than 10 percent in the 5-year forecast period, and 15 percent in the 10-year forecast period. If the forecast is not consistent with the TAF, differences must be resolved, which may include revisions to the airport submitted forecasts, adjustments to the TAF, or both.
## The Ohio State University Airport

### Year Method 1- Population Growth Method 2- PCI Growth Method 3- Linear Trendline Method 4- National Growth by Segment

<table>
<thead>
<tr>
<th>Year</th>
<th>Method 1- Population Growth</th>
<th>Method 2- PCI Growth</th>
<th>Method 3- Linear Trendline</th>
<th>Method 4- National Growth by Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historic</td>
<td>2017</td>
<td>187</td>
<td>187</td>
<td>187</td>
</tr>
<tr>
<td>Projected</td>
<td>2022</td>
<td>194</td>
<td>201</td>
<td>198</td>
</tr>
<tr>
<td></td>
<td>2027</td>
<td>202</td>
<td>216</td>
<td>220</td>
</tr>
<tr>
<td></td>
<td>2037</td>
<td>218</td>
<td>249</td>
<td>266</td>
</tr>
</tbody>
</table>

**AAGR 2017-2037**

| Year | AAGR 2017-2037 Method 1- Population Growth Method 2- PCI Growth Method 3- Linear Trendline Method 4- National Growth by Segment |
|------|---------------------------------------------|-----------------------------|---------------------------|-------------------------------------|
| 2037 Variation from TAF | -19.5% | -4.5% | 2.3% | -24.6% |

- Projected fleet mix projection: 187 aircraft (2017); 266 aircraft (2037)

<table>
<thead>
<tr>
<th>Year</th>
<th>Single Engine</th>
<th>Multi-Engine</th>
<th>Jet</th>
<th>Helicopter</th>
<th>Light Sport</th>
<th>Experimental</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historic</td>
<td>2017</td>
<td>138</td>
<td>21</td>
<td>16</td>
<td>7</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Projected</td>
<td>2022</td>
<td>143</td>
<td>22</td>
<td>18</td>
<td>8</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>2027</td>
<td>155</td>
<td>23</td>
<td>21</td>
<td>11</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2037</td>
<td>174</td>
<td>27</td>
<td>30</td>
<td>17</td>
<td>11</td>
<td>7</td>
</tr>
</tbody>
</table>

**Percent of Total**

<table>
<thead>
<tr>
<th>Year</th>
<th>Single Engine</th>
<th>Multi-Engine</th>
<th>Jet</th>
<th>Helicopter</th>
<th>Light Sport</th>
<th>Experimental</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historic</td>
<td>2017</td>
<td>74%</td>
<td>11%</td>
<td>9%</td>
<td>4%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Projected</td>
<td>2022</td>
<td>72%</td>
<td>11%</td>
<td>9%</td>
<td>4%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>2027</td>
<td>71%</td>
<td>10%</td>
<td>10%</td>
<td>5%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>2037</td>
<td>65%</td>
<td>10%</td>
<td>11%</td>
<td>6%</td>
<td>4%</td>
<td>3%</td>
</tr>
</tbody>
</table>

- Operations projections: Employment Growth method (12.1% 2037 variation from TAF)

<table>
<thead>
<tr>
<th>Year</th>
<th>Method 1- OPBA</th>
<th>Method 2- Employment Growth</th>
<th>Method 3- Historic Growth</th>
<th>Method 4- FAA Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historic</td>
<td>2017</td>
<td>90,687</td>
<td>90,687</td>
<td>90,687</td>
</tr>
<tr>
<td>Projected</td>
<td>2022</td>
<td>95,900</td>
<td>95,600</td>
<td>96,300</td>
</tr>
<tr>
<td></td>
<td>2027</td>
<td>106,500</td>
<td>100,800</td>
<td>102,300</td>
</tr>
<tr>
<td></td>
<td>2037</td>
<td>129,100</td>
<td>112,000</td>
<td>115,500</td>
</tr>
</tbody>
</table>

**AAGR 2017-2037**

<table>
<thead>
<tr>
<th>Year</th>
<th>Method 1- OPBA</th>
<th>Method 2- Employment Growth</th>
<th>Method 3- Historic Growth</th>
<th>Method 4- FAA Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2037 Variation from TAF</td>
<td>1.78%</td>
<td>1.06%</td>
<td>1.22%</td>
<td>0.31%</td>
</tr>
</tbody>
</table>

- Local vs. Itinerant Operational Split: 41% Local, 40% Itinerant (general aviation); 19% Itinerant (air taxi)
Operational Fleet Mix projections:

**FY 2017 KOSU OPERATIONS**
- Single-Engine: 79.8%
- Military: 0.3%

**FY 2037 KOSU OPERATIONS**
- Single-Engine: 73.3%
- Military: 0.3%

Peak Hour Operations Forecast

Sarah explained the preferred summary and compared it with the FAA's Terminal Area Forecast (TAF). The TAF
<table>
<thead>
<tr>
<th>Forecast Element</th>
<th>Year</th>
<th>Recommended Forecast</th>
<th>Adjusted TAF Forecast</th>
<th>% Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based Aircraft</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base Year</td>
<td>2017</td>
<td>187</td>
<td>187</td>
<td></td>
</tr>
<tr>
<td>Base Year + 5 Years</td>
<td>2022</td>
<td>198</td>
<td>206</td>
<td>-4.0%</td>
</tr>
<tr>
<td>Base Year + 10 Years</td>
<td>2027</td>
<td>220</td>
<td>226</td>
<td>-2.7%</td>
</tr>
<tr>
<td>Base Year + 15 Years</td>
<td>2032</td>
<td>243</td>
<td>243</td>
<td>0.0%</td>
</tr>
<tr>
<td>Base Year + 20 Years</td>
<td>2037</td>
<td>266</td>
<td>260</td>
<td>2.3%</td>
</tr>
<tr>
<td>AAGR 2017-2037</td>
<td></td>
<td></td>
<td></td>
<td>1.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.7%</td>
</tr>
<tr>
<td>Total Operations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base Year</td>
<td>2017</td>
<td>89,930</td>
<td>89,930</td>
<td>0.0%</td>
</tr>
<tr>
<td>Base Year + 5 Years</td>
<td>2022</td>
<td>94,800</td>
<td>91,700</td>
<td>3.3%</td>
</tr>
<tr>
<td>Base Year + 10 Years</td>
<td>2027</td>
<td>99,900</td>
<td>93,600</td>
<td>6.3%</td>
</tr>
<tr>
<td>Base Year + 15 Years</td>
<td>2032</td>
<td>105,300</td>
<td>95,500</td>
<td>9.3%</td>
</tr>
<tr>
<td>Base Year + 20 Years</td>
<td>2037</td>
<td>111,000</td>
<td>97,600</td>
<td>12.1%</td>
</tr>
<tr>
<td>AAGR 2017-2037</td>
<td></td>
<td></td>
<td></td>
<td>1.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.4%</td>
</tr>
</tbody>
</table>

Sarah concluded with a review of critical aircraft noting the largest aircraft at OSU generally fall under the C/D-II category of the Airport Refer Code (ARC). This family of aircraft is used to determine the specific FAA design requirements applied to the airport.

Marie then opened the floor to questions.

**Meeting Discussion**

The following is a list of questions and comments discussed during the meeting.

**Question – What is the percent of completion for the new hangars?**

**Answer – The recent construction of hangars is complete.**

**Question – Has FAA’s Terminal Area Forecast (TAF) been accurate in their projections in the past?**

**Answer – No.**

**Question – Then why compare the Ohio State Airport projections to the TAF if they are not accurate?**

**Answer – The FAA prepares macro level forecasts for all airports. The master plan forecasts are a micro level forecast. All airport prepared forecasts are required by the FAA to be compared to the TAF for consistency. If the forecast is not consistent with the TAF, differences must be resolved, which may include revisions to the airport submitted forecasts, adjustments to the TAF, or both.**

**Question – From a linear perspective it appears based jet projection will double by 2037, though there are most likely more jets out there right now that could utilize the Ohio State Airport – is that correct? [PowerPoint slide 57]**
**Answer** – Although there is expressed interest to base more jet aircraft at the airport, there is currently no hangar space available for more jets to be based at the airport. The ability to hangar more jets will be analyzed in the facility requirements and alternatives analyses.

**Comment** – Airport growth is based on business needs.

**Question** – If companies like Worthington Industries want jet space (hangars) could they build their own?
**Answer** – We’re currently looking at this issue, how to get through the legal issues and requirements. FAA’s current policy is that airports can let companies build their own facilities. Because the airport is owned by The Ohio State University it comes under state laws which impose legal issues on new facilities.

**Question** – Will SAFECON be held every year?
**Answer** – The next one that will be held at Don Scott Field will be in 2019.

**Question** – Did you gather destinations of the C-II/D-II Fleet?
**Answer** – No, we looked at the flight plans, but that does not include final destinations. Aircraft may take off without full fuel because of the runway length and stop for fuel before reaching their final destination. We do know the parameters of the design aircraft to make assumptions/decisions on their facility needs.

**Question** – Will we be able to review the draft Inventory of Existing Conditions and Aviation Activity Forecasts?
**Answer** – Yes, we will give the TAC the opportunity to review the chapters of the report. Once the draft Forecast is finalized, it will be sent to FAA for review and concurrence. Both chapters will be posted on the airport master plan website.

**Question** – When do you anticipate these two chapters can be reviewed?
**Answer** – We have already completed an internal review. Once the OSU team reviews, the TAC will have a final review before they are posted on-line. Approximately the next few weeks.

**Question** – On the Critical Aircraft Assessment can we find out more specifics about the airplanes? [PowerPoint slide 64]
**Answer** – FAA design criteria is generally determined by the design code of the largest family of aircraft, which operates 500 or more times over a one-year period at the airport. This is ARC C-II for KOSU. Although larger aircraft currently utilize the facility, and that use is expected to continue in the future, the larger aircraft do not meet the operating threshold to justify moving to the next design level.

**Question** – Are there any new noise abatement protocols expected?
**Answer** – The university completed a comprehensive noise study of the airport in 2011. Based on the noise levels at the time, the FAA would not support mandatory noise abatement procedures. Instead, the university continued its voluntary measures that were already in place. New aircraft technologies and operating projections allow us to anticipate lower noise levels in the future. Nonetheless, new noise contours will be generated for the preferred development plan, in order to determine if new noise abatement protocols are warranted.

**Question** – Does the critical aircraft designation affect the existing conditions and forecast?
**Answer** – The critical aircraft design group (C-II) is key in determining the FAA design requirements applied to the airport, not the forecasted number of operations or based aircraft.

**Question** – How does the airport’s business plan fit into this airport master plan?
**Answer** – Traditionally, the master plan is strictly a physical development plan, and only considers business operations in a secondary role for identifying facility requirements. Nonetheless, the FAA has agreed to allow the
university to develop an airport business plan that will be incorporated into the final plan document. As the master plan identifies the “what” (what facilities are needed at the airport), the business plan will look at the “how” (how will these facilities be utilized). The business plan will also identify future business opportunities, including academic & research initiatives as well as aircraft services.

Question – How much are we locked into the business use? Can we increase the facilities at the airport?
Answer – Our focus is on providing a premier academic environment. Having corporate flights occur here enhances that learning environment because students get to work with the latest technologies and systems, including navigational aids, communications, and an air traffic control tower. Without these advanced operations, the FAA would be less likely to fund the systems that provide Ohio State students with learning opportunities not available at many other college flight programs.

Meeting Participants
Eighteen (18) TAC participants attended the meeting.

TAC Members
Deral Carson              Midwest Air Traffic Control Services/FAA
Lowell Dowler            Worthington Industries
John Ehlers              Northwest Civic Association
Dale Gelter              The Ohio State University Airport
Mark Gerko               Columbus State Community College
Nick Gill                Mid-Ohio Regional Planning Commission (MORPC)
Jim Gregory              The Ohio State University, College of Engineering
Mark Hagenberger         The Ohio State University, College of Engineering
Doug Hammon              The Ohio State University Airport
Hannah Higgins           The Ohio State University, Planning & Real Estate
Brandon Mann             The Ohio State University, Flight Education Division
Rob Mendez               The Ohio State University, Student
Kimberly Moss            The Ohio State University, Planning & Real Estate
Carlos Ruiz-Coll         The Ohio State University Airport
Mark Scott               The Ohio State University, College of Engineering
Robyn Stewart            City of Worthington
Dave Wall                Columbus Regional Airport Authority
David Zoll               Advisor to City of Worthington

Participants that could not attend the TAC meeting:
Tom Baxter               Capital City Aviation
Rudy Buchheit            The Ohio State University, College of Engineering
Graham Cochran           The Ohio State University, College of Food, Agr., Environmental Sciences
Katy Delaney             FAA
Dave Dennis              ODOT - Aviation
Rep. Mike Duffey         Ohio House of Representatives
Mike Eppley              The Ohio State University Airport FBO
Richard Fox              Midwest Air Traffic Control Services/FAA
John Ginley              The Ohio State University, Aviation Alumni Society
Donna Goss               City of Dublin
Quinten Harris           City of Columbus, Dept. of Development
John Horack              The Ohio State University, College of Engineering
Eric MacGilvray  Village of Riverlea
Javier Melendez-Galinsky  The Ohio State University, Student
Jack Miner  The Ohio State University, Office of Academic Affairs/Worthington Res.
Ross Neice  ODOT - Aviation
John O’Keeffe  WOOSE
Matt Schutte  The Ohio State University, College of Engineering
Matt Sikora  The Ohio State University, College of Engineering
Richard Smith  National Intercollegiate Flying Association (NIFA)
Adam Stiffler  Cardinal Health
Bob Tanner  NetJets
Kevin Wheeler  City of Columbus, Dept. of Development
David Williams  The Ohio State University, College of Engineering
Seth Young  The Ohio State University, College of Engineering/Center for Aviation Studies

Consultant Team Members:
Sarah Arnold  Marr Arnold Planning
John Baer  Woolpert
Nick Hoffman  Engage Public Affairs / MurphyEpson
Marie Keister  Engage Public Affairs / MurphyEpson
Marie Muia  Woolpert
Greg Shuttleworth  Woolpert

This Mar. 5, 2018 TAC meeting summary and presentation will be posted on the airport’s website: https://airport.engineering.osu.edu/airport-facilities/master-plan.