WELCOME
Meeting Purpose/Agenda

• Overview & update
• Activity forecast
• Facility requirements & alternatives
  – Runways & taxiways
  – Terminal area
• Environmental considerations
• Next steps
• Comments, questions
• One of the nation’s premier university-owned & operated general aviation facilities
  − Less than 30 university airports nationwide
  − Only 3 owned by tier-1 institutions

• A learning laboratory supporting interdisciplinary learning, discovery, engagement

• Contributes to economic vitality of central Ohio
MASTER PLAN MISSION:

How do we modernize the airport to enhance the student experience, aerospace research & the central Ohio region?
Progress/Schedule

- Fall 2017: Environmental Overview
- Winter 2018: Existing Conditions
- Spring 2018: Aviation Forecasts
- Summer 2018: Facility Requirements
- Fall 2018: Alternatives Development
- Winter 2019: Financial Implementation

TAC = Technical Advisory Committee

We are here!
ACTIVITY FORECAST
Based Aircraft

- **Helicopter**
- **Jet**
- **Multi-Engine**
- **Single Engine/Light Sport/Experimental**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2022</th>
<th>2027</th>
<th>2037</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>76%</td>
<td>76%</td>
<td>75%</td>
<td>73%</td>
</tr>
<tr>
<td>Helicopter</td>
<td>9%</td>
<td>9%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Jet</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
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</tr>
<tr>
<td>Multi-Engine</td>
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<td>4%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Single Engine/Light Sport/Experimental</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Based Aircraft Forecast:
- 2017: 76%
- 2022: 76%
- 2027: 75%
- 2037: 73%
### Activity Forecast

#### Based Aircraft

<table>
<thead>
<tr>
<th>Year</th>
<th>Helicopter</th>
<th>Jet</th>
<th>Multi-Engine</th>
<th>Single Engine/Light Sport/Experimental</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>9%</td>
<td>11%</td>
<td>76%</td>
<td>4%</td>
</tr>
<tr>
<td>2022</td>
<td>9%</td>
<td>11%</td>
<td>76%</td>
<td>4%</td>
</tr>
<tr>
<td>2027</td>
<td>10%</td>
<td>10%</td>
<td>75%</td>
<td>5%</td>
</tr>
<tr>
<td>2037</td>
<td>11%</td>
<td>10%</td>
<td>6%</td>
<td>6%</td>
</tr>
</tbody>
</table>

#### Operations

<table>
<thead>
<tr>
<th>Year</th>
<th>ITINERANT</th>
<th>LOCAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2027</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2037</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
FACILITY REQUIREMENTS & ALTERNATIVES
• Ensure safety and security
• Meet customer needs with quality service
• Focus on all general aviation needs with emphasis on students
• Be mindful of airport impact on neighborhoods
• Maintain FAA Part 139 standards & all airport design requirements
• Be cost effective
Runways

Parallel Runway (North)
(Runway 9L-27R)
A-II (e.g. Pilatus PC-12)
2,994 x 100 feet

Crosswind Runway
(Runway 5-23)
B-I (small) (e.g. Cessna CJ1)
3,562 x 100 feet

Primary Runway (South)
(Runway 9R-27L)
C/D-II (e.g. Gulfstream 450)
5,004 x 100 feet
### RUNWAY LENGTH REQUIREMENTS

<table>
<thead>
<tr>
<th></th>
<th>Small aircraft - 12,500 lbs. or less</th>
<th>Large Aircraft - 60,000 pounds or less</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% Less than 10 passengers</td>
<td>4,000</td>
<td>5,405</td>
</tr>
<tr>
<td>100% 10 or more passengers</td>
<td>4,250</td>
<td>7,000</td>
</tr>
<tr>
<td>75% at 60% useful load</td>
<td>5,620</td>
<td></td>
</tr>
<tr>
<td>75% at 90% useful load</td>
<td>8,320</td>
<td></td>
</tr>
<tr>
<td>100% at 60% useful load</td>
<td>5,620</td>
<td></td>
</tr>
<tr>
<td>100% at 90% useful load</td>
<td>8,320</td>
<td></td>
</tr>
</tbody>
</table>

Source: AC 150/5325-4B, Runway Length Requirements for Airport Design
ALTERNATIVE 1
Extend primary runway 1000 feet to the east
ALTERNATIVE 2
Extend primary runway 500 feet to east and west
ALTERNATIVE 3
Extend primary runway 1000 feet to the west
Preferred Runway Alternative

ALTERNATIVE 4
Extend North Runway 1,306 feet east and 1,700 feet west
The Ohio State University Airport Master Plan

- FAA designated hotspot
- Proposed runway closure

### Taxiways

#### Runway Current Usage

<table>
<thead>
<tr>
<th>Runway</th>
<th>Current Usage</th>
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</thead>
<tbody>
<tr>
<td><strong>Primary Runway (South)</strong></td>
<td></td>
</tr>
<tr>
<td>09R</td>
<td>24%</td>
</tr>
<tr>
<td>27L</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Parallel Runway (North)</strong></td>
<td></td>
</tr>
<tr>
<td>09L</td>
<td>7%</td>
</tr>
<tr>
<td>27R</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Crosswind Runway</strong></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1%</td>
</tr>
<tr>
<td>23</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: CMH radar sample of 40% of operations
Preferred Taxiway Alternatives

- Direct access to runway without turn
- Proposed runway closure

Parallel Runway (North)

Crosswind Runway

Primary Runway (South)
• Upgrade airfield marking & lighting
• Compass calibration pad
• Completed perimeter road within fence
• Security/wildlife fencing
ENVIRONMENTAL OVERVIEW
Potential environmental considerations associated with airport improvements*

• Water resources
• Historical structures/archaeology
• Noise/social impacts

*Detailed environmental studies will be completed for individual projects as needed, should they move forward.
Noise is unwanted sound

By its very nature it is subjective

Music to my ears may be noise to yours

Sound levels are measured, modeled and related to social surveys to assess potential for annoyance

65 DNL is the FAA significance threshold for aircraft noise exposure
Day-Night Average Sound Level (DNL)

• 24-hour time weighted energy average noise level based on A-weighted decibels (dBA)

• Noise occurring 10 p.m. to 7 a.m. is penalized by 10 dB to account for higher noise sensitivity and expected decrease in background levels at night

• FAA requires the use of DNL for airport noise assessments

• Average annual day aircraft noise exposure is calculated over a broad area then depicted using contour lines of equal noise levels
Forecasted 2027 Noise Contours from 2009
The Ohio State University Airport Master Plan

Current Forecast Noise Contours (2037)

37% reduction in area covered by 60 & 65 DNL compared to previous forecast
SUMMARY & NEXT STEPS
• Airport is a learning laboratory

• Corporate aircraft usage makes state-of-the-art airfield facilities possible

• Reduction in runways will improve safety

• Proposed airport improvements are similar to previous

• Aircraft have gotten quieter historically

• Future aircraft DNL noise remains predominantly within airport boundary
Next Steps

1. Review your comments  
   (due March 26th)

2. Finalize master plan chapters and circulate  
   (2 week comment period)

3. Submit to FAA for review; respond to comments

4. University Board of Trustees review & adoption

5. FAA acceptance
QUESTIONS, DISCUSSION

Marie Keister, Engage Public Affairs
• Raise hands to indicate you have a question or comment

• Be brief so we can get to as many people as possible

• Please be respectful and polite
THANK YOU

For more information visit: osuairport.org/airport-facilities/master-plan