Agenda

- Introductory Remarks
- Project Approach and Schedule
- Forecasts of Aviation Activity Review
- Facility Requirements Review
- Airfield Alternatives
- Landside Alternative - West Side
- Landside Alternative - East Side
- Conceptual Development Plan
- Next Steps
Project Approach

- Follow FAA Guidance
- Building Block Process
  - Inventory
  - Forecasts
  - Facilities Needs Determination
  - Development Plan Formulation
  - Financial Plan
Survey – Input to Facility Planning

Committee Surveys
✓ Remains open for comments

Public Surveys
✓ 173 responses since June 13, 2019
  ▪ Preliminary Results
    • 34% of respondents indicate they have utilized Gateway 5 or more times in the past five years
    • 70% of respondents indicated low cost parking was important (more important than proximity to terminal)
    • 42% indicated airline destinations critical factor
    • 35% indicated proximity to home critical factor
<table>
<thead>
<tr>
<th></th>
<th>2023</th>
<th>2028</th>
<th>2038</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enplanement Forecast:</strong></td>
<td>924,667</td>
<td>1,022,420</td>
<td>1,245,211</td>
</tr>
<tr>
<td>2018 Total= 763,542</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Total Operations Forecast:</strong></td>
<td>316,712</td>
<td>333,028</td>
<td>369,744</td>
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<tr>
<td>2018 Total= 288,921</td>
<td></td>
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<tr>
<td><strong>Total Based Aircraft Forecast:</strong></td>
<td>121</td>
<td>126</td>
<td>139</td>
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<tr>
<td>2017 Actual = 109</td>
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</table>
Existing Airport Facilities
Summary of Critical Facility Requirement Considerations

- Identify potential needs and benefits for runway extension(s)
- Identify benefits for placement of parallel taxiway improvements
- Consideration of benefits of improved instrument approach capabilities
- Passenger terminal
  - Short-term focus on demand driven improvements for existing terminal building
  - Long-term focus on relocated terminal
- Vehicular access and parking
  - Short-term focus on demand driven improvements for existing terminal area
  - Long-term focus on relocated terminal including support facilities
- SkyBridge Arizona - incorporate adopted recommendations into master plan
- General aviation and industrial aviation - continue to program for demand driven facility expansion and improvements
Airside Alternatives
Airfield Configuration

- Runway Orientation
- Airfield Operational Capacity
- Runway Length Analysis
- Runway Design and Dimensional Criteria
- Parallel Runway Separation
- Instrument Approach Capabilities
- Taxiway Design and Dimensional Criteria
- Parallel Taxiway Improvement Considerations
- Exit and Connecting Taxiways
Airfield Development: **ALTERNATIVE 1**
Airfield Development: **ALTERNATIVE 2**
Run-Up Area: ALTERNATIVE 1
Run-Up: ALTERNATIVE 2
Compass Calibration Pad: **ALTERNATIVE 1**
Compass Calibration Pad: ALTERNATIVE 2
Compass Calibration Pad: **ALTERNATIVE 3**
Landside Alternatives - West Side
Terminal Requirements Summary

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Existing (supply) (a)</th>
<th>PAL 1 (2023)</th>
<th>PAL 2 (2028)</th>
<th>PAL 3 (2038)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHECK-IN (TICKETING)</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Queue (sf)</td>
<td>4,500</td>
<td>3,550</td>
<td>3,700</td>
<td>4,350</td>
</tr>
<tr>
<td>Counters/Bag drops</td>
<td>32</td>
<td>26</td>
<td>27</td>
<td>31</td>
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<tr>
<td><strong>CHECKED BAGGAGE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>EDS machines (b)</td>
<td>2 CT-80</td>
<td>3 MS-EDS</td>
<td>4 MS-EDS</td>
<td>4 MS-EDS</td>
</tr>
<tr>
<td>Makeup area (sf)</td>
<td>11,500</td>
<td>11,400</td>
<td>12,800</td>
<td>15,700</td>
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<tr>
<td><strong>SECURITY SCREENING CHECKPOINT</strong></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Queue (sf)</td>
<td>1,725</td>
<td>1,700</td>
<td>1,900</td>
<td>2,625</td>
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<tr>
<td>Lanes</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
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<tr>
<td><strong>PASSENGER HOLDROOM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Holdroom (sf)</td>
<td>15,260</td>
<td>13,000</td>
<td>15,300</td>
<td>19,700</td>
</tr>
<tr>
<td>Podium, queueing, egress (sf)</td>
<td>3,950</td>
<td>3,150</td>
<td>3,675</td>
<td>4,725</td>
</tr>
<tr>
<td><strong>APRON (GATES)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 ADG III, 4 B757</td>
<td>8 ADG III</td>
<td>9 ADG III</td>
<td>11 ADG III</td>
<td></td>
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<tr>
<td><strong>BAGGAGE CLAIM (DEVICES)</strong></td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
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</table>

(a) Existing queues are estimated based on terminal drawings
(b) Requirement, which is based on a hypothetical medium speed inline system (MS-EDS), includes one EDS machine for redundancy
Public Parking Demand Forecasts
(Master Plan Projected Growth Rate)

<table>
<thead>
<tr>
<th>Lot</th>
<th>FY 2018 Peak</th>
<th>Short – Term</th>
<th>Mid – Term</th>
<th>Long – Term</th>
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<tbody>
<tr>
<td><strong>Hourly Express Lot</strong></td>
<td></td>
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<tr>
<td>Supply</td>
<td>183</td>
<td>183</td>
<td>183</td>
<td>183</td>
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<tr>
<td>Effective Supply</td>
<td>156</td>
<td>156</td>
<td>156</td>
<td>156</td>
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<tr>
<td>Demand</td>
<td>194</td>
<td>242</td>
<td>265</td>
<td>326</td>
</tr>
<tr>
<td>Surplus/Deficit</td>
<td>-38</td>
<td>-86</td>
<td>-109</td>
<td>-170</td>
</tr>
<tr>
<td><strong>Daily Lot</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply</td>
<td>871</td>
<td>871</td>
<td>871</td>
<td>871</td>
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<tr>
<td>Effective Supply</td>
<td>740</td>
<td>740</td>
<td>740</td>
<td>740</td>
</tr>
<tr>
<td>Demand</td>
<td>717</td>
<td>894</td>
<td>982</td>
<td>1,205</td>
</tr>
<tr>
<td>Surplus/Deficit</td>
<td>23</td>
<td>-154</td>
<td>-241</td>
<td>-465</td>
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<tr>
<td><strong>Ray Road Economy Lot</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Supply</td>
<td>2,812</td>
<td>2,812</td>
<td>2,812</td>
<td>2,812</td>
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<tr>
<td>Effective Supply</td>
<td>2,390</td>
<td>2,390</td>
<td>2,390</td>
<td>2,390</td>
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<tr>
<td>Demand</td>
<td>747</td>
<td>931</td>
<td>1022</td>
<td>1255</td>
</tr>
<tr>
<td>Surplus/Deficit</td>
<td>1643</td>
<td>1459</td>
<td>1368</td>
<td>1135</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply</td>
<td>3,866</td>
<td>3,866</td>
<td>3,866</td>
<td>3,866</td>
</tr>
<tr>
<td>Effective Supply</td>
<td>3,286</td>
<td>3,286</td>
<td>3,286</td>
<td>3,286</td>
</tr>
<tr>
<td>Demand</td>
<td>1,658</td>
<td>2,067</td>
<td>2,270</td>
<td>2,787</td>
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<tr>
<td>Surplus/Deficit</td>
<td>1,628</td>
<td>1,219</td>
<td>1,017</td>
<td>499</td>
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</tbody>
</table>

- **Effective Supply**
  - Best practices for managing parking supply suggest that parking supply is at capacity when the demand reaches 85% utilization

- **Deficits**
  - **Immediate**
    - Hourly Lot, based on observed condition. Lot should be considered at or near capacity.
  - **Short, Mid, Long-Term**
    - Hourly Express Lot
    - Daily Lot

- **Surplus**
  - **Immediate, Short, Mid, Long-Term**
    - Significant surplus in Economy Lot throughout planning horizon
Terminal Annex Redevelopment Plan
Passenger Terminal Support Facilities

- Access Roadway System
- Passenger Parking System
- Rental Car Parking
- Employee Parking
- Temporary Parking (Cell Phone Lot)
Westside Development: **ALTERNATIVE 1: Short Term**
Westside Development: **ALTERNATIVE 1: Mid Term**

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Figure 4-11: Westside Development - Facility Improvement Alternative 1 Mid Term

*Phoenix-Mesa Gateway Airport Master Plan Update*
Westside Development: 

**ALTERNATIVE 1:** Long Term
Westside Development: **ALTERNATIVE 2: Short Term**

[Diagram of Westside Development showing various lots and facilities]
Westside Development: **ALTERNATIVE 2**: Mid Term
Westside Development: **ALTERNATIVE 2: Long Term**
Westside Terminal Break-Point Issues

Goal: Maintain “Just Plane Easy”

- Access Roadway - Sossaman Road (how much airport and non-airport traffic can be accommodated without experiencing unacceptable delay?)
- Size – area (acres) dedicated to passenger terminal facilities (how much stuff will the five pound bag hold before experiencing unacceptable delay)
- Passenger terminal buildings useful life
- Additional airlines and or addition service
- Desire for international facilities
Landside Alternatives - East Side
Passenger Terminal Area Acres Comparison

- IWA Existing - 36 Acres/763,542 K Enplaned PAX 2018 (1.2 M Forecast)/10 aircraft parking positions
- Northwest Arkansas Regional Airport - 124 Acres/725 K Enplaned PAX 2017/15 aircraft parking positions
- Tulsa International Airport – 103 Acres/1.4 M PAX 2017/22 Aircraft Parking Positions
Terminal Development: ALTERNATIVE 1

Figure 4-16
Terminal Development
Alternative 1
Pier-Finger Design - 28 Gates
Terminal Development: **ALTERNATIVE 2**
Terminal Development: **ALTERNATIVE 3**
Conceptual Development Plan
Preferred Conceptual Development Plan
Next Steps

- Study Committee Meetings #3 - June 25-26, 2019
- Public Information Meeting #2 – June 26, 2019
- Facilities Implementation Plan and Financial Feasibility Analysis (Working Paper Four)
- Airport Layout Plan
- Final Committee Meetings September/October 2019
- Submitted to PMGAA Board for approval
- Airport Layout Plan Submitted to FAA for approval