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
## Airport Master Plan - FAA Approved Forecast

### Enplanement Forecast:
- 2018 Total = 763,542

<table>
<thead>
<tr>
<th>Year 2023</th>
<th>Year 2028</th>
<th>Year 2038</th>
</tr>
</thead>
<tbody>
<tr>
<td>924,667</td>
<td>1,022,420</td>
<td>1,245,211</td>
</tr>
</tbody>
</table>

### Total Operations Forecast:
- 2018 Total = 288,921

<table>
<thead>
<tr>
<th>Year 2023</th>
<th>Year 2028</th>
<th>Year 2038</th>
</tr>
</thead>
<tbody>
<tr>
<td>316,712</td>
<td>333,028</td>
<td>369,744</td>
</tr>
</tbody>
</table>

### Total Based Aircraft Forecast:
- 2017 Actual = 109

<table>
<thead>
<tr>
<th>Year 2023</th>
<th>Year 2028</th>
<th>Year 2038</th>
</tr>
</thead>
<tbody>
<tr>
<td>121</td>
<td>126</td>
<td>139</td>
</tr>
</tbody>
</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**

Figure 4-5
Compass Calibration Pad
Relocation Alternative 1
Compass Calibration Pad: **ALTERNATIVE 2**

Figure 4-7
Compass Calibration Pad Relocation 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>CHECK-IN (TICKETING)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</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>
</tr>
<tr>
<td>CHECKED BAGGAGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<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>
</tr>
<tr>
<td>SECURITY SCREENING CHECKPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Queue (sf)</td>
<td>1,725</td>
<td>1,700</td>
<td>1,900</td>
<td>2,625</td>
</tr>
<tr>
<td>Lanes</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>PASSENGER HOLDROOM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<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>APRON (GATES)</td>
<td>6 ADG III, 8 ADG III</td>
<td>9 ADG III</td>
<td>11 ADG III</td>
<td></td>
</tr>
<tr>
<td>BAGGAGE CLAIM (DEVICES)</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</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>
</tr>
</thead>
<tbody>
<tr>
<td>Hourly Express Lot</td>
<td>Supply 183 183 183 183</td>
<td>Effective Supply 156 156 156 156</td>
<td>Demand 194 242 265 326</td>
<td>Surplus/Deficit -38 -86 -109 -170</td>
</tr>
<tr>
<td>Ray Road Economy Lot</td>
<td>Supply 2,812 2,812 2,812 2,812</td>
<td>Effective Supply 2,390 2,390 2,390 2,390</td>
<td>Demand 747 931 1022 1255</td>
<td>Surplus/Deficit 1,643 1,459 1,368 1,135</td>
</tr>
<tr>
<td>Grand Total</td>
<td>Supply 3,866 3,866 3,866 3,866</td>
<td>Effective Supply 3,286 3,286 3,286 3,286</td>
<td>Demand 1,658 2,067 2,270 2,787</td>
<td>Surplus/Deficit 1,628 1,219 1,017 499</td>
</tr>
</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**
Westside Development: ALTERNATIVE 1: Long Term
Westside Development: **ALTERNATIVE 2: Short Term**
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
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**
Terminal Development: **ALTERNATIVE 2**

**Figure 4-17**

Terminal Development
Alternative 2
Curvilinear-Pier Design - 28 Gates
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