Agenda

- Proposed public event format changes
- Efforts to address stakeholder input
- Recap – Purpose & Need
- Alternatives evaluation process
- Identification of Preferred Alternatives
- Panel discussion
- 10-minute comment period
Proposed Public Event Format Changes

• Use of a facilitator
• Q&A format changes
• Top concerns sticker board at sign-in
• Improve readability of presentations
Efforts to address stakeholder input

• Updated frequently asked questions posted to website
• Baseline and forecast aircraft operations
• 30th Street North design alternatives
• Project schedule update
Baseline and Forecast Aircraft Operations

- 2016 MACNOMS flight tracking system data analyzed to establish baseline for noise analysis
- 25,596 total estimated aircraft operations in 2016 is consistent with the LTCP forecast for 2016
- Based on analysis of aircraft type information in MACNOMS, operations by the different aircraft classes were estimated
- These baseline and forecast operations by aircraft type will be included in the EA/EAW

<table>
<thead>
<tr>
<th>Aircraft Type</th>
<th>2016 Baseline</th>
<th>2025 Forecast (Extended Forecast Scenario)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Operations</td>
<td>Percentage</td>
</tr>
<tr>
<td>Single Engine Piston</td>
<td>24,053</td>
<td>93.97%</td>
</tr>
<tr>
<td>Multi-Engine Piston</td>
<td>498</td>
<td>1.95%</td>
</tr>
<tr>
<td>Turboprop</td>
<td>63</td>
<td>0.25%</td>
</tr>
<tr>
<td>Jet</td>
<td>3</td>
<td>0.01%</td>
</tr>
<tr>
<td>Helicopter</td>
<td>979</td>
<td>3.82%</td>
</tr>
<tr>
<td><strong>Total Operations</strong></td>
<td><strong>25,596</strong></td>
<td></td>
</tr>
</tbody>
</table>
30th Street North Realignment Alternatives

- The LTCP considered three concepts.
- Supplemental planning identified two additional concepts as presented at the May CEP meeting.
30th Street North Design Alternatives

- Met with West Lakeland CEP members and homeowners most affected by new Alternatives 4A & 4B
- Met with Bayport Fire Chief
  - Modeled specific vehicle turning movements for cul-de-sac
  - Identified specific concerns regarding availability of fire hydrants and potential mitigation measures
- Evaluated alternate designs to address three primary concerns expressed by the CEP and community:
  - Estimated construction cost
  - Compared design characteristics
  - Quantified travel time differences
- Based on project cost and initial CEP response, Alternatives 4A & 4B will not be considered further
Project Schedule Update

Note: Schedule updated August 8, 2017. Subject to change.
Recap – Purpose and Need

The **Purpose** of the project at Lake Elmo Airport is to pursue the following broader goals:

1) Address failing end-of-life infrastructure
2) Enhance safety for airport users and the general public
3) Improve facilities for the aircraft currently operating at the airport

The **Need** for the project at Lake Elmo Airport is based on the following specific objectives:

1) Improve the runway pavement conditions
2) Minimize incompatible land uses in the runway protection zones (RPZs)
3) Meet runway length needs for existing users
4) Upgrade the instrument approach procedures
Range of Alternatives Considered
FAA Guidance

• Alternatives considered should:
  • Represent the range of reasonable alternatives.
  • Provide a clear basis for choice among options.

• No requirement for specific number or range of alternatives.

• Generally, the greater the degree of environmental effects, the wider the range of alternatives that should be considered.

• An EA may limit alternatives to the proposed action and no action if there are no conflicts concerning alternative uses of available resources.

• A preferred alternative should be identified by the EA.

• The EA should briefly explain why certain alternatives were eliminated from further study.
Range of Alternatives Considered

- Five categories of alternative concepts will be considered by the EA/EAW:
  - No-Action Alternative
  - Primary Runway 14/32 Alternatives
  - 30th Street North Realignment Alternatives
  - Crosswind Runway 04/22 Alternatives
  - Instrument Approach Alternatives
No-Action Alternative

• Must be carried forward throughout the environmental review for comparison with the preferred alternative.

• Under this scenario, no improvements would be made beyond maintaining the existing airfield configuration.

• This alternative does not meet the Purpose & Need.
Primary Runway 14/32 Alternatives Evaluation Process

A. Criteria for Identifying Range of Alternatives
   - Avoid or minimize changes to airport use and aircraft flight patterns
   - Maintain runway orientations
   - Avoid or minimize land acquisition

B. Criteria for Screening Range of Alternatives
   - Compatible with a viable 30th Street N. realignment alternative
   - Meet the Purpose and Need
   - Conform to FAA policies

C. Criteria for Identifying Preferred Alternative
   - Practicability factors
   - Environmental factors

D. Preferred Alternative

No Action Alternative

For Evaluation Purposes Only
Primary Runway 14/32 Alternatives

• The LTCP considered five concepts.

• Supplemental planning identified three additional concepts.
Primary Runway 14/32 LTCP Alternatives

Figure 5-3: Alternative B Layout

Figure ES-5: Alternative B1 (Final Preferred Alternative)

Figure 5-4: Alternative C Layout
Primary Runway 14/32 Supplemental Alternatives
### Primary Runway 14/32 Alternatives Screening

#### Table 3-1: Primary Runway Alternatives Screening

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Purpose &amp; Need Objective 1</th>
<th>Purpose &amp; Need Objective 2</th>
<th>Purpose &amp; Need Objective 3</th>
<th>Purpose &amp; Need Objective 4</th>
<th>Conform to FAA Policies</th>
<th>Viable 30th Street Realignment Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>No-Action Alternative</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Alternative A</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Alternative B</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Alternative B1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Alternative B2</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Alternative C</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Alternative D</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Alternative E</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

- **Objective 1**: Improve the runway pavement condition
- **Objective 2**: Minimize incompatible land uses in the RPZs
- **Objective 3**: Meet runway length needs for existing users
- **Objective 4**: Upgrade the instrument approach procedures
- **Conform to FAA Policies**: Viable 30th Street Realignment Alternative
FAA Policy for Implementing Displaced Thresholds

- The FAA considers the 65 DNL contour to be the threshold of significance for noise impact around airports.
- The 2025 60-DNL noise contour does not extend off airport property.
- AEDT DNL grid point analysis confirmed no change in DNL levels at the nearest residential area on extended runway centerline with a 300-foot displacement (less than 20-foot difference in altitude).
- Displacing the runway threshold as a noise mitigation tactic at Lake Elmo Airport is not consistent with FAA policy.

Note: 60 DNL shown for informational purposes only.
MAC Ongoing Efforts to Reduce Noise

Voluntary Noise Abatement Plan
- Preferred flight procedures
- Preferred runway use
- Designated maintenance run-up areas
- Nighttime training procedures

Fly Neighborly signs

Pilot Outreach and Resources
- Pilot Briefings
- Pilot Guides

Pilot/Community Events
- Lake Elmo Airport Father’s Day Pancake Breakfast
- Experimental Aircraft Association Chapter 54 events
## Primary Runway 14/32
### Comparison of Finalist Alternatives

**Table 3-2: Primary Runway Alternatives Comparison Matrix**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>No-Action Alternative</th>
<th>Alternative B Relocate 700' &amp; Extend to 3,600'</th>
<th>Alternative B1 Relocate 616' &amp; Extend to 3,500'</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Practicability Factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Cost</td>
<td>$5.4 million</td>
<td>$8.6 million</td>
<td>$8.3 million</td>
</tr>
<tr>
<td>Logistical Factors</td>
<td>Future Manning Avenue widening will trigger FAA RPZ review</td>
<td>30th Street N realignment options are limited</td>
<td>None</td>
</tr>
<tr>
<td><strong>Environmental Factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wetland Fill Area (approx.)</td>
<td>NA</td>
<td>2.32 acres</td>
<td>1.85 acres</td>
</tr>
<tr>
<td>Wildlife Considerations: RW 32 Threshold to Nearest Wetland (approx.)</td>
<td>400 feet</td>
<td>700 feet</td>
<td>700 feet</td>
</tr>
<tr>
<td>Tree Clearing Area (approx.)</td>
<td>NA</td>
<td>22 acres</td>
<td>20 acres</td>
</tr>
<tr>
<td>Residential Parcels with Structures in Model Safety Zone A</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Residential Parcels with Structures in Model Safety Zone B</td>
<td>2</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Private Properties within 65 DNL in 2025</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
30th Street North Realignment Alternatives

• The LTCP considered three concepts.

• Supplemental planning identified two additional concepts, which will not be considered further based on project cost and CEP input.

• Alternative 3 will be carried forward as the preferred alternative.
Crosswind Runway 04/22 Alternatives

• LTCP Preferred Alternative: Extend Runway 04/22 by 254 feet northeast

• There are no other alternatives that meet the same criteria used for identifying the range of primary runway alternatives
Instrument Approach Alternatives

• LTCP Preferred Alternative: Upgrade Instrument Approaches
• There are no other alternatives that meet the Purpose & Need Objective #4
Set of Preferred Alternatives

- Based on the preceding, the following alternatives will be carried forward as the preferred alternatives for full environmental review:
  - No-Action Alternative
  - Primary Runway 14/32 = Alternative B1
  - 30th Street North = Alternative 3
  - Crosswind Runway 04/22 = Extend Runway 04/22 by 254 feet northeast
  - Instrument Approaches = Upgrade Instrument Approaches
Discussion/Questions

• CEP Meeting #4 to be held sometime the week of October 16
• Topics for the next meeting will include:
  • Debrief of second public event
  • Review full range of environmental impacts associated with the set of preferred alternatives