Sustainability for Small Airports

Minnesota Council of Airports Conference—April 21, 2016
Jennifer Wolchansky, Senior Environmental Planner, Mead & Hunt.
Agenda

- Sustainability in Aviation
- Applicability to Smaller Airports
- Sustainability at Great Lakes Airports
- Statewide Sustainability Case Study
- Benefits
Sustainability

- **Economic**: cost savings, increased revenues, economic development
- **Operational**: improve efficiency, to enhance viability and performance
- **Natural Resources**: reduce impacts to and reliance on natural resources
- **Social**: improve health and safety of airport users and neighbors; strengthen relations with the community
Challenges for Smaller Airports

- **Resources**
  - Financial
  - Staff

- **Implementation**
  - Control
  - Scale of facilities

- **Changing GA Conditions**
Sustainability Strategies for Smaller Airports

- Strong Community Relationships
- Upgrades for Utility Efficiencies
  - Lighting retrofits
  - Efficient plumbing
  - Insulation
- Diversification of Revenue Sources
Great Lakes Airport Sustainability
Indisputably Sustainable

Sustainability Projects

* Appleton International (WI) – LEED Platinum GA terminal; next zero emissions

• Brainerd Lakes Regional Airport (MN) – Solar Air Heat Installation

• Minneapolis-St. Paul International Airport (MN) – Solar Array on Terminal Parking Ramp

* Dane County (WI) – LEED Gold SRE building; solar array

* Austin Straubel (WI) – LEED Gold SRE and ARFF

* South Bend International (IN) – Geothermal system ($3M in VALE grants)

* Rochester International (MN) – super insulated envelope with green roof

Airport Sustainability Plans

• Akron-Canton Regional Airport (OH)

• Dayton-Wright Brothers Airport (OH)

• James M. Cox Dayton International Airport (OH)

• Kent State University (OH)

• Minneapolis-St. Paul International Airport (MN)

* Appleton International Airport (WI)

• Dane County Regional Airport (WI)

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Great Lakes Airport Sustainability
Under Cover Sustainability

- **Anoka County – Blaine Airport (MN)**: Hosts AOPA Grass Roots Fly-in
- **Orr Regional Airport (MN)**: Hosts a BBQ supper for local Area Resort Association’s annual meeting (every spring)
- **Flying Cloud Airport (MN)**: Operational Implementation Plan (OIP) (2003), agreement between MAC and City of Eden Prairie to address community outreach and responsiveness to aircraft noise issues
- **Gerald R. Ford International Airport (MI)**: Educating West Michigan Program (re: de-icing science, operations, and responsibilities)
- **Chippewa Valley Regional Airport (WI)** – *automated daylight harvesting*

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CASE STUDY.
Colorado Statewide GA Sustainability Program

- Customized Sustainability Plan for each Colorado GA Airport
- Online Sustainability Tool Kit
  - Scalable and flexible
  - Easy to use
  - Accessible
- Recommend goals and initiatives to increase viability
  - Financial
  - Community relations
  - Operations
Baseline Inventory

<table>
<thead>
<tr>
<th>Operational</th>
<th>Historical Year</th>
<th>Forecast Year</th>
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<tbody>
<tr>
<td>Based Aircraft (Historical)</td>
<td>850</td>
<td></td>
</tr>
<tr>
<td>Emplacements (Historical)</td>
<td>48</td>
<td></td>
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<tr>
<td>Aircraft Operations (Historical)</td>
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<tr>
<td>Runways (Historical)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Length of Main Runway (ft)</td>
<td>10,001</td>
<td></td>
</tr>
<tr>
<td>Width of Main Runway (ft)</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Safety Accidents (#)</td>
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<td></td>
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<tr>
<td>Safety Incidents (#)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>FTE Employees (#)</td>
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<td>22</td>
</tr>
<tr>
<td>Average Employee Tenure (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Runway Closure Time (hours)</td>
<td></td>
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</tr>
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</table>

Describe your existing conditions for your Airport’s OPERATIONS. (How much effort is expended to keep the facility running? Are there necessary updates needed to enhance the facility? How is the Airport managed? Are there existing sustainability practices associated with OPERATIONS currently happening at your Airport? If yes, please describe these existing sustainability practices.

The airport is managed by a single director. Operations are slowed in the winter due to weather conditions.
Goals

Economic Vitality

Focus Category: Revenue Generation

- Diversify revenue streams.
- Identify new alternative funding sources for capital projects.
- Increase aeronautical revenue.
- Increase non-aeronautical revenue.
- Increase revenue from aviation activities.

My Custom Economic Vitality - Revenue Generation Goal

Goal: Increase aeronautical revenue.

Focus Categories: Operational Efficiency - Business Ops, Economic Vitality - Revenue Generation, Economic Vitality - Economic Development

<table>
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<tr>
<th>Priority</th>
<th>Status</th>
<th>In Progress</th>
<th>Unit of Measure</th>
<th>Decrease %</th>
<th>Increase %</th>
<th>Measurement Timeframe</th>
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<tr>
<td>High</td>
<td></td>
<td></td>
<td>Dollars</td>
<td>-- choose --</td>
<td>5</td>
<td>Annually</td>
</tr>
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</table>

In the Free Text Space Below please note why this goal was chosen for your airport and/or discuss any efforts that are currently in progress towards this goal. If you selected "Other" as a Measurement Timeframe, please note your intended timeframe for measuring your goal in the text box below.

An increase in aeronautical revenue would help to improve the viability of the airport.
Initiatives

Goal: Increase aeronautical revenue.

- Conduct airport fee study to determine if the airport is charging the appropriate fees and the appropriate rates. (If not, it may be an opportunity to add fees and/or increase rates.)
- Conduct an air service study to gauge feasibility for implementing air service.
- Conduct market rent study to determine appropriate rental rates. (If not, it may be an opportunity to increase rents.)
- Develop and implement new marketing campaigns.
- Increase airport aeronautical cash (e.g., rental fees, based aircraft fees, etc.).
- Increase land/improvement/facility rental rates.
- Implement aeronautical development projects.
- Increase number of based aircraft.

Initiative: Conduct an air service study to gauge feasibility for implementing air service.

Goals: Diversify revenue streams.
Increase aeronautical revenue.

Responsible Person: Andy Platz
Target Completion Date: 10/29/2016
Estimated Cost: $11,500

Level of Effort: Medium
Status: Planned

Funding Sources:
- Available
  - Local Funding
  - Private
  - Loan
  - Grant
  - Others
- Airport Funding
- Federal Grants

Add to List
Airport Sustainability Plan
Benefits of Implementing Sustainability at Smaller Airports

▪ Helps airports remain viable and valuable assets in today’s market

▪ Demonstrates to your local community that the airport is a responsible and valuable asset

▪ Strategy for improvement
How to become more Sustainable?

- Incorporate Sustainability Initiatives into Airport Master Plan
- Assess facilities for efficiency upgrades
- Airport Sustainability Plan
- Begin tracking improvements
- Get the word out!
Resources

- ACRP Synthesis 11-03/Topic S02-12: Airport Sustainability Practices-Drivers and Outcomes of Green Initiatives for Small Commercial and General Aviation (GA) Airports (ACTIVE)
- ACRP Synthesis 11-03/Topic S02-11: Lessons Learned from Airport Sustainability Plans
- ACRP 02-22: Incorporating Sustainability into Traditional Airport Projects
- ACRP Synthesis 02-30: Enhancing the Airport-Industry SAGA Website
- ACRP Synthesis 11-03/Topic S02-07: Integrating Environmental Sustainability into Airport Contracts
- ACRP Synthesis 11-03/Topic S02-06: Airport Climate Adaptation and Resilience
- ACRP Synthesis 11-03/Topic S02-05: Strategies and Financing Opportunities for Airport Environmental Programs
- ACRP Synthesis 11-03/Topic S10-04: Airport Energy Efficiency and Cost Reduction
- ACRP Synthesis 11-03/Topic S02-14: Airport Sustainability Practices
Questions?

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