Airport Investments, How Are They Determined?

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Federal Aviation Administration
Washington State Department of Transportation
Presentation outline:

**FAA**
- Types of Funding
- What is a Master Plan
- Capital Improvement Program (CIP)
- ACIP Planning Process
- Steps to AIP Funding
  - Project Eligibility
  - Selection Process
  - Project Requirements
  - Grants/Closeouts

**WSDOT**
- Airport Aid Overview
- Funding
- Evaluation Criteria
- What is an Airport Layout Plan (ALP)
- What is a Capital Improvement Program (CIP)
- Airport Pavement Management System
- State Airport Classification System and Performance Objectives
Washington State Aviation System

- 138 public use airports in 2009
- 65 airports included in National Plan of Integrated Airport Systems (NPIAS)

Ownership:
- WSDOT - 17
- County - 10
- City/Town – 43
- Port District - 33
- Joint - 5
- Private - 30
WSDOT Airport Aid Program

WSDOT Aviation under RCW 47.68.090 may render financial assistance by grant or loan to municipalities or federally recognized Indian tribes acting in the planning, acquisition, construction, improvement, maintenance or operation of airports owned and controlled by municipalities and Indian tribes. All such moneys are to be dispersed or expended in accordance with the terms and conditions upon which they were made available.
Where does the funding come from?

- $.11 per gallon tax on general aviation fuel
- $15.00 aircraft registration fee
- 10% of excise tax collected
WSDOT Aviation FY09-11 Budget

Total Bi-Annual Budget $8,128,000 with Federal share of $2,150,000

Legend:
- Aviation Mgmt/Sup
- St Airport Const/Maint
- Aviation Planning
- Airport Aid
- Aviation Emergency Svcs
WSDOT Top-Down Planning Strategy

- WA Multi-Modal Transportation Plan
- Long-Term Air Transportation Study (LATS)
- Statewide Airport Economic Impact Study
- Statewide Airport Pavement Management System
- Airport Layout Plans (ALP)
- Capital Improvement Program (CIP)
- Airport Security Plans
- Runway Safety Assessments
- Obstruction Removal Plans
How are grant applications evaluated, prioritized and funding decisions made?

- Project Justification
  - Airport Layout Plan (ALP)
  - Capital Improvement Program (CIP)
  - Airport Pavement Management System (APMS)
  - Long-term Air Transportation Study (LATS) Performance Objectives

- Project Type

- Available Funding

- Other Factors
  - Project Readiness
  - Matching Funds
  - Community Need / Support
  - Economic Development / Self-sufficiency
  - Appropriate Land Use Protections
Airport Layout Plan (ALP)

A narrative and graphic portrayal of the existing and proposed facilities, which are deemed necessary for operation of the airport. Intended to ensure that a public entity has:

1. Studied its airport needs,
2. Recognized the problems in development of its airport,
3. Proposed a plan to meet the present and future needs, and
4. Accepted and officially approved the plan.
Airport Layout Plan (ALP)

- Inventory
- Facility Requirements
- Development Alternatives
- Development Program (CIP)

ALP Drawing Set
  - Airport Data Sheet
  - Airport Layout Plan
  - Terminal Area
  - FAR Part 77 Airspace Plan & Runway Approach & Profile
  - Runway RPZ and Inner Approach Plan & Profile
  - Airport Land Use Plan
  - Exhibit ‘A’ Airport Property Plan
Capital Improvement Program (CIP)

- Reflects local project priorities
- Provides predictability for local, state and federal decision-makers
- Determines near-term funding needs
  - 20-year prioritized list of projects
    - Short Term – Years 0 to 5
    - Intermediate Term – Years 6 to 10
    - Long Term – Years 11 to 20
## Capital Improvement Program (CIP)

### Methow Valley State Airport

**WSDOT Aviation Division**

**20-Year Capital Improvement Program (DRAFT)**

<table>
<thead>
<tr>
<th>Short Term</th>
<th>Yr</th>
<th>Project Description</th>
<th>Project Category</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Subtotal Cost</th>
<th>% Engineering / Environmental Contingency</th>
<th>Total Cost</th>
<th>FAA Eligible</th>
<th>Airport Spends</th>
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</thead>
<tbody>
<tr>
<td>2009-2010</td>
<td>6</td>
<td>Install PIS (Bays 12 &amp; 11)</td>
<td>Lighting</td>
<td>as</td>
<td>2</td>
<td>$100,000</td>
<td>$200,000</td>
<td>$70,000</td>
<td>$270,000</td>
<td>$256,500</td>
<td>$13,500</td>
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<tr>
<td></td>
<td></td>
<td>Obstruction Survey (Runway Approach &amp; RAS)</td>
<td>Other</td>
<td>L</td>
<td>1</td>
<td>$30,000</td>
<td>$30,000</td>
<td>$10,500</td>
<td>$40,500</td>
<td>$36,475</td>
<td>$4,025</td>
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<tr>
<td></td>
<td></td>
<td>Threshold Location &amp; Declared Distance Evaluation/ALP Update</td>
<td>Other</td>
<td>L</td>
<td>1</td>
<td>$35,000</td>
<td>$35,000</td>
<td>$8,500</td>
<td>$43,500</td>
<td>$35,740</td>
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<td></td>
<td></td>
<td>• MIR (Replaces existing lighting system)</td>
<td>Lighting</td>
<td>L</td>
<td>504.6</td>
<td>$55</td>
<td>$27,730</td>
<td>$97,193</td>
<td>$137,983</td>
<td>$55,144</td>
<td>$121,840</td>
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<td></td>
<td></td>
<td>• Relocate Airport Beacon &amp; Rope</td>
<td>Lighting</td>
<td>as</td>
<td>1</td>
<td>$50,000</td>
<td>$50,000</td>
<td>$8,000</td>
<td>$58,000</td>
<td>$50,000</td>
<td>$8,000</td>
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<td></td>
<td></td>
<td>• Relocate Replacement Runway Distance Remaining Signs and Lights</td>
<td>Safety</td>
<td>L</td>
<td>1</td>
<td>$30,000</td>
<td>$30,000</td>
<td>$10,500</td>
<td>$40,500</td>
<td>$36,475</td>
<td>$4,025</td>
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<td></td>
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<td>• Install Traffic Sensors (on Town Road)</td>
<td>Safety</td>
<td>L</td>
<td>1</td>
<td>$15,000</td>
<td>$15,000</td>
<td>$4,500</td>
<td>$19,500</td>
<td>$13,975</td>
<td>$5,525</td>
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<td>• Relocate Segmented Circle</td>
<td>Other</td>
<td>L</td>
<td>1</td>
<td>$40,000</td>
<td>$40,000</td>
<td>$8,000</td>
<td>$48,000</td>
<td>$40,000</td>
<td>$8,000</td>
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<td><strong>Subtotal - Year 1 &amp; 2</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$836,695</td>
<td>$292,543</td>
<td>$1,129,238</td>
<td>$1,073,061</td>
<td>$56,477</td>
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<td>2011</td>
<td>2</td>
<td>ESA grading and stormwater management project</td>
<td>Environmental</td>
<td>L</td>
<td>1</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
<td>$30,000</td>
<td>$1,030,000</td>
<td>$843,640</td>
<td>$186,360</td>
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<td></td>
<td></td>
<td>West Apron Expansion &amp; Reconfiguration</td>
<td>Pavement Construction</td>
<td>9,260</td>
<td>$55</td>
<td>$500,000</td>
<td>$550,000</td>
<td>$175,000</td>
<td>$675,000</td>
<td>$550,000</td>
<td>$175,000</td>
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<td></td>
<td>East Apron Taxiway Reconfiguration</td>
<td>Pavement Construction</td>
<td>290</td>
<td>$75</td>
<td>$26,250</td>
<td>$26,250</td>
<td>$7,375</td>
<td>$33,625</td>
<td>$26,250</td>
<td>$7,375</td>
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<td>Expand Aircraft Terminal (Bay 31 and)</td>
<td>Pavement Construction</td>
<td>1,571</td>
<td>$75</td>
<td>$117,825</td>
<td>$117,825</td>
<td>$30,112</td>
<td>$147,937</td>
<td>$117,825</td>
<td>$30,112</td>
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<td><strong>Subtotal - Year 3</strong></td>
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<td>$777,515</td>
<td>$342,081</td>
<td>$1,119,596</td>
<td>$1,052,041</td>
<td>$67,555</td>
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<td>2012</td>
<td>3</td>
<td>Overlay Runway, repair markings</td>
<td>Pavement Mainsance</td>
<td>43,147</td>
<td>$40</td>
<td>$1,725,880</td>
<td>$1,725,880</td>
<td>$517,760</td>
<td>$2,243,640</td>
<td>$2,231,072</td>
<td>$12,568</td>
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<td></td>
<td></td>
<td>ESA grading, S/W improvements, and stormwater management project</td>
<td>Safety</td>
<td>L</td>
<td>1</td>
<td>$300,000</td>
<td>$300,000</td>
<td>$81,000</td>
<td>$381,000</td>
<td>$327,640</td>
<td>$53,360</td>
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<td><strong>Subtotal - Year 4</strong></td>
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<td>$2,319,600</td>
<td>$815,560</td>
<td>$3,144,160</td>
<td>$2,987,712</td>
<td>$177,248</td>
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<td>2013</td>
<td>4</td>
<td>Snow Removal Building, Snow Removal Equipment</td>
<td>Other</td>
<td>L</td>
<td>1</td>
<td>$900,000</td>
<td>$900,000</td>
<td>$252,000</td>
<td>$1,152,000</td>
<td>$947,500</td>
<td>$204,500</td>
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<tr>
<td></td>
<td></td>
<td>(F) Re-Work West Apron &amp; Taxiway, repair markings &amp; sodwork</td>
<td>Pavement Mainsance</td>
<td>10,390</td>
<td>$20</td>
<td>$207,800</td>
<td>$207,800</td>
<td>$52,944</td>
<td>$260,744</td>
<td>$207,800</td>
<td>$52,944</td>
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<td><strong>Subtotal - Year 5</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$951,560</td>
<td>$333,186</td>
<td>$1,285,146</td>
<td>$1,233,899</td>
<td>$61,257</td>
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<tr>
<td>2014</td>
<td>5</td>
<td>Construct 3 Helicopter Parking Pads (50x50 FFC)</td>
<td>Pavement Construction</td>
<td>834</td>
<td>$100</td>
<td>$83,400</td>
<td>$83,400</td>
<td>$21,000</td>
<td>$104,400</td>
<td>$83,400</td>
<td>$21,000</td>
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<tr>
<td><strong>Subtotal - Year 6</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$13,430</td>
<td>$13,430</td>
<td>$31,000</td>
<td>$44,430</td>
<td>$6,305</td>
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</tbody>
</table>

**Yr 6 Total**

$5,118,030 | $1,816,161 | $7,935,091 | $4,673,395 | $171,745
Washington State Airport Pavement Management System (APMS)

A system-wide study of pavement to assess the existing condition of runways, taxiways and aprons at public use airports across Washington State. Estimates funding needs to maintain the system at an acceptable level.

- Provides a tool to:
  - Monitor the condition of pavements to ensure they are able to safely accommodate aircraft traffic
  - Identify system needs
  - Make programming decisions for funding
  - Provide information for legislative decision making
  - Assist local jurisdictions with planning decisions

- Cost-effective way to track a very important capital investment and plan for its preservation and eventual rehabilitation
Pavement Condition Index (PCI)

The *Pavement Condition Index* (PCI) is used to evaluate the system. The PCI is the national standard when evaluating airport conditions at the state level.
PCI Scale

Preventive Maintenance

Major Rehabilitation

Reconstruction
Pavement Management Philosophy

Cost-Effective Time for Preventive Maintenance

Cost-Effective Time for Rehabilitation

Costly Time for Rehabilitation
Pavement Reports

- Statewide
- Washington Aviation System Pavement Needs and Policy Summary
- Puget Sound Region
- Individual Airport
  - Provides summary of data collected (inventory and condition) as well as a base work program
  - Airport sponsors use the results to develop a tailored program for their airport based on:
    - Local costs
    - Funding constraints
    - Other considerations (operational, plans for future work, etc.)
- Pavement Management Manual
  - Helps airports tailor the pavement maintenance and rehabilitation recommendations in the individual report
  - Develop and implement a pavement maintenance and rehabilitation program
**Washington State Airport Classification System**

- LATS established a state airport classification system to identify the role of each airport in the system and determine the types of facilities and services necessary at each.

- Factors considered include runway length, based aircraft, economic impact, population served, and service area driving time.

- Six classifications are used in the Washington State airport classification system:
  - Commercial Service Airports
  - Regional Service Airports
  - Community Service Airports
  - Local Service Airports
  - Rural Essential Airports
  - Seaplane Bases
## Distribution of Airports by State Classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>No. Of Airports</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Service</td>
<td>16</td>
<td>Accommodates at least 2,500 scheduled passenger boardings per year for at least three years.</td>
</tr>
<tr>
<td>Regional Service</td>
<td>19</td>
<td>Serves large or multiple communities; all NPIAS Relievers; 40 based aircraft and 4,000-foot long runway, with exceptions.</td>
</tr>
<tr>
<td>Community Service</td>
<td>23</td>
<td>Serves a community; has at least 20 based aircraft; paved runway</td>
</tr>
<tr>
<td>Local Service</td>
<td>33</td>
<td>Serves a community; has fewer than 20 based aircraft; paved runway</td>
</tr>
<tr>
<td>Rural Essential</td>
<td>38</td>
<td>Other land-based airports, including residential airparks</td>
</tr>
<tr>
<td>Seaplane Bases</td>
<td>9</td>
<td>Identified by FAA as a seaplane base, unless it is a Commercial Service Airport</td>
</tr>
</tbody>
</table>
Performance Objectives

- Performance objectives set targets for each classification level
- Targets investment based on classification to stretch resources
- Two types of performance objectives:
  1) Those that relate to all classifications
  2) Those that are customized for the facilities and services appropriate to each classification
## Airport Aid Allocation

<table>
<thead>
<tr>
<th>Type of Airport</th>
<th>Pavement</th>
<th>Safety</th>
<th>Maintenance, Security &amp; Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPIAS GA airports w/&lt;20 based aircraft, and all non-NPIAS airports (41 airports) (55%)</td>
<td>41%</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>All Others (48 airports) (45%)</td>
<td>34%</td>
<td>7%</td>
<td>4%</td>
</tr>
</tbody>
</table>
WSDOT Airport Aid Program Funding

- Approximately $2 to $3 million per biennium
- Maximum $250,000 per grant cycle
- 5% minimum local match
Other Considerations

- Project Readiness

- Schedule
  - Projects must be completed in current biennium

- Matching Funds
  - Above 5%

- Community Need / Support

- Economic Development / Self-sufficiency

- Appropriate Land Use Protections
Grant Award Decisions

- Airport Sponsors Notified

- Public Announcements
  - Website
  - Aviation News Service
  - Grant Maps
  - Legislature
  - FAA
  - All Airport Sponsors
2009 Airport Improvement Projects
Airport Aid Grant Program 2009 – 2011 Biennium

“Your Aviation Dollars at Work”
Contact information:

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