

Department of Transportation
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Office of Air, Rail & Transit
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TO: South Dakota Aeronautics Commission

FROM: Jack Dokken, Program Manager
Office of Air, Rail, and Transit

DATE: September 15, 2017

SUBJECT: 2018 Proposed State Projects

The FAA Airports District Office has suggested that South Dakota secure a 2018 grant for a state aviation system plan update. It has been about eight years since the completion of our current system plan, and FAA guidance provides for an update every ten years.

This system plan is used to guide the state through airport projects so work is done systemically, rather than piecemeal. Factors to consider might be storage of large aircraft, turf runways, fuel systems, weather reporting, etc. A request for proposal would be issued this fall, with a consultant being selected sometime in the spring. Commission participation will be crucial at that time.

Also in 2018, another pavement condition index (PCI) survey will be conducted. PCI surveys are done every three years - the last one was done was in 2015. These surveys along with subsurface surveys provide important information regarding the condition and remaining life of airport surfaces. They are normally included in the engineering reports provided to FAA to justify and guide pavement rehabilitation and reconstruction.



GOALS

- **Safety & Security**
 - *To provide a safe and secure system of airports*
- **Maintenance & Development of Infrastructure**
 - *To provide an airport system that meets current and future user needs*
- **Accessibility to Users**
 - *To provide a system of airports that is accessible from the ground and the air*



SAFETY & SECURITY OBJECTIVES

- **Clear Approaches to Runway Ends**
 - Maintain clear runway approaches
- **Emergency Response Plans**
 - Develop a plan appropriate to the size and operation of the airport
- **Controlled Airfield Access**
 - Control airfield by using means appropriate to the size and operation of the airport (i.e. gates, fencing, etc.)



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MAINTENANCE & DEVELOPMENT OF INFRASTRUCTURE OBJECTIVES

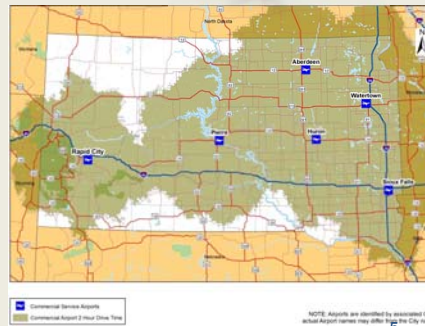
- **Facility Targets**
 - Targets have been identified for each airport role
- **Service Targets**
 - Targets have been identified for each airport role
- **Pavement PCI**
 - Maintain system pavement (runways, taxiways, aprons) at a score of 70 or greater



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ACCESSIBILITY TO USERS OBJECTIVES

- Reasonable Drive Time
 - Commercial Service – 2 hour drive time
 - General Aviation – 30 minute drive time
- Access to Weather Reporting
 - Provide up to the minute weather conditions for those flying and pilots filing flight plans
- Access to Non-Precision or Instrument Approaches
 - Support operations from a variety of aircraft in varying weather conditions



INVENTORY

- Airport Design
- Runways
- Taxiways
- Navigational Aids
- Aircraft Storage
- Terminal/Administration Facilities
- Services
- Runway Approaches
- Planning

DDP
Design Development Process

DDP Form 001 - Airport Information Form

Please refer to the Airport Information Form for more information.

Airport Information:

| | | |
|---------------|------------|------------|
| Project Name: | State: | County: |
| City: | Zip: | Latitude: |
| Longitude: | Altitude: | Time Zone: |
| ICAO Code: | IATA Code: | FAA Code: |
| ICAO Name: | IATA Name: | FAA Name: |

Airport Manager Information:

| | |
|---------------|--------------|
| Full Name: | Job Title: |
| Phone: | Cell Phone: |
| Fax: | Home Phone: |
| Mobile Phone: | Work Email: |
| Home Email: | Work Email: |
| Other Email: | Other Email: |

Other Information:

Is this airport a public airport? Yes No

Is this airport a general aviation airport? Yes No

Is this airport a commercial airport? Yes No

Is this airport a military airport? Yes No

Is this airport a private airport? Yes No

Is this airport a government airport? Yes No

Is this airport a religious airport? Yes No

Is this airport a school airport? Yes No

Is this airport a hospital airport? Yes No

Is this airport a prison airport? Yes No

Is this airport a government airport? Yes No

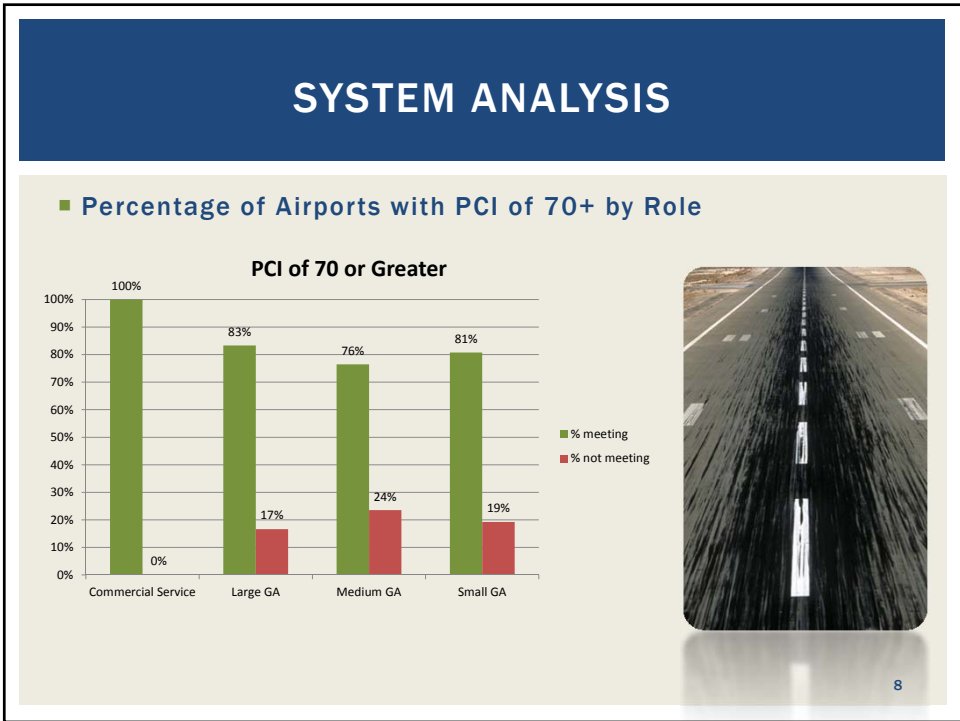
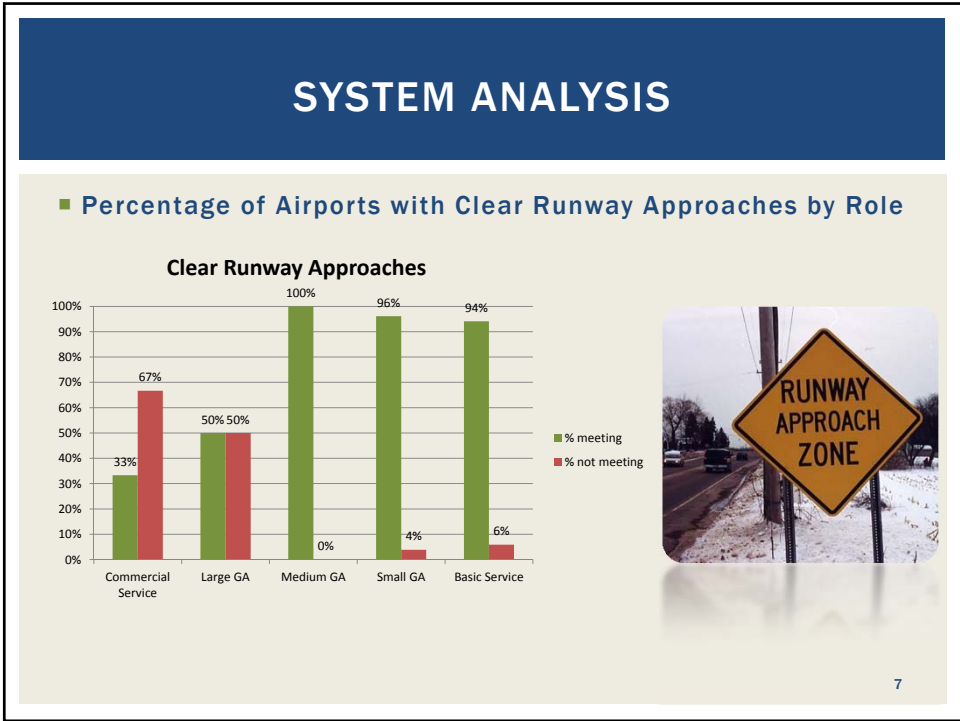
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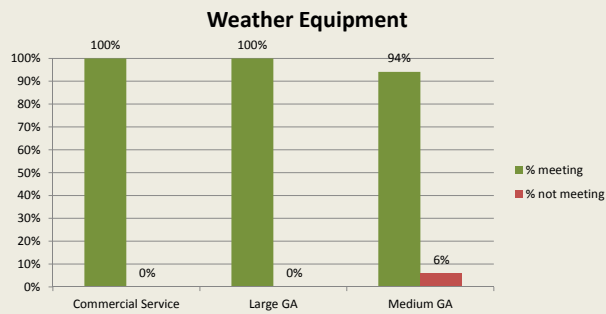
Is this airport a prison airport? Yes No





SYSTEM ANALYSIS

■ Percentage of Airports with Weather Reporting Equipment by Role



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FACILITY TARGETS

■ Airside

- ARC
- Runway Length/Width
- Taxiway Type
- Runway Approach
- Runway/Taxiway Lighting
- VGSI
- REILS
- Rotating Beacons
- Lighted Wind Indicators
- Remote Communication Outlets
- Adequate Wind Coverage/Crosswind Runway



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FACILITY TARGETS



- **Landside**
 - Covered aircraft storage
 - Overnight storage for business aircraft
 - Adequate Aircraft Apron Area
 - Terminal/Admin Building
 - Paved Entry/Terminal Parking






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ECONOMIC IMPACT




- **Passenger Surveys**
 - Commercial Service
 - General Aviation
- **Agricultural Spraying Surveys**
- **Sturgis Motorcycle Rally Surveys**
- **Pheasant Hunting Surveys**
- **Business Surveys**

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STATEWIDE ECONOMIC IMPACT

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| <ul style="list-style-type: none"> ■ Pheasant Hunting <ul style="list-style-type: none"> ■ Jobs ■ Personal Income ■ Business Sales ■ Sturgis Motorcycle Rally <ul style="list-style-type: none"> ■ Jobs ■ Personal Income ■ Business Sales ■ Agricultural Spraying <ul style="list-style-type: none"> ■ Jobs ■ Personal Income ■ Business Sales ■ Airport Construction <ul style="list-style-type: none"> ■ Jobs ■ Personal Income ■ Construction Expenditures/Sales | <table border="0"> <tr><td>1,198</td></tr> <tr><td>\$25,634,000</td></tr> <tr><td>\$82,905,000</td></tr> <tr><td>47</td></tr> <tr><td>\$1,181,000</td></tr> <tr><td>\$3,729,000</td></tr> <tr><td>311</td></tr> <tr><td>\$10,536,000</td></tr> <tr><td>\$31,984,000</td></tr> <tr><td>430</td></tr> <tr><td>\$17,958,000</td></tr> <tr><td>\$57,796,000</td></tr> </table> | 1,198 | \$25,634,000 | \$82,905,000 | 47 | \$1,181,000 | \$3,729,000 | 311 | \$10,536,000 | \$31,984,000 | 430 | \$17,958,000 | \$57,796,000 |    |
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| \$82,905,000 | | | | | | | | | | | | | | |
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| \$17,958,000 | | | | | | | | | | | | | | |
| \$57,796,000 | | | | | | | | | | | | | | |

These numbers include spinoff effects

TRENDS & TECHNOLOGY

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> ■ General Aviation Trends <ul style="list-style-type: none"> ■ Recent decline in aircraft shipments ■ Increase in hours flown over next 20 years ■ Commercial Aviation Trends <ul style="list-style-type: none"> ■ Phasing out of Saab 340 Aircraft/Replacing with CRJ's ■ Concerns: <ul style="list-style-type: none"> ■ Runway Length ■ Terminal facilities |    |
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TRENDS & TECHNOLOGY

- **Aircraft Trends**
 - Light Sport Aircraft
 - Very Light Jets
 - Unmanned Aerial Vehicles

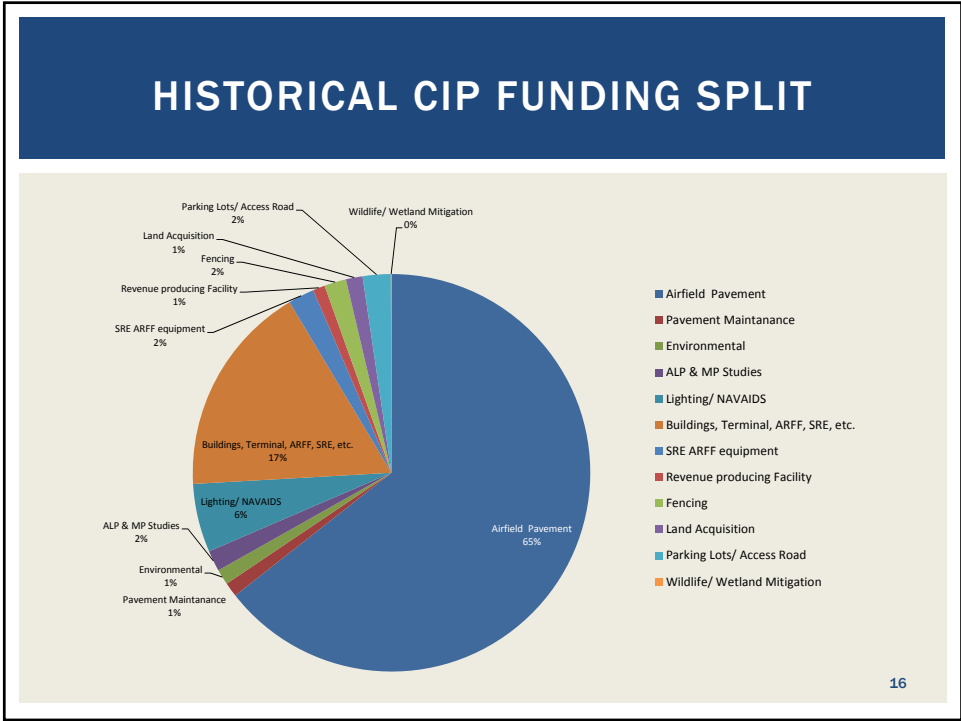
- **Fueling Trends**
 - Biofuels

- **Sustainability Practices**
 - Construction Material Recycling
 - Airfield Lighting
 - Green Building Construction
 - Alternative Energy Sources





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RECOMMENDATIONS

- **Facility Improvements**
 - Runway Width
 - Runway PCI
 - Taxiway Type
 - Taxiway Lighting
 - VGS I
 - REILS
- **Service Recommendations**
 - Ground Transportation
 - Food/Beverage
 - Internet Access
 - Pilot Areas
 - Fuel
 - Land Use
 - GPS Approaches

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SUMMARY

- The 2010 SDSASP was completed in July 2011.
 - An electronic version of the Plan will be available online at the South Dakota DOT Office of Aeronautics website
<http://www.sddot.com/fpa/Aeronautics/general.asp>
- A special thanks to everyone who provided information and suggestions along the way!
- Questions?

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