Recommendations on Previous Tasks
MnDOT SASP Phase 1
Assessment of Prior Efforts Summary

Outreach Summary

The following groups were consulted and outreach meetings held to gather input on the assessment of prior SASP efforts.

- MnDOT Aeronautics Staff
- SASP Advisory Committee (SAC)
- Technical Advisory Committee (TAC)
- Aviation Consultant Community Workshop
- Aviation Community (Minnesota Airports Conference, Pilot Focus Groups, Drone Focus Group, Numerous airshows and fly-ins)

What we learned

What worked well:

- Economic Impact Calculator tool is useful for airports and stakeholders
- Map graphics in the plan
- SASP level forecast information
- Report card (5-sheet airport information)

What could use improvement:

- Does not adequately include drones
- Could better educate public
- Could use additional information on NextGen rollout and impact on Minnesota
- SASP could include a package of tools for sponsors to share results of SASP and its ancillary studies. Materials should be synthesized and focused. Also, easier web access for sponsors to gather information about their airport (report cards, PCI reports, economic impact, etc.).
- Comparison tools/information for airports to compare against average or other airports in their classification.
- Clarification on which objectives are requirements versus recommendations. Include background on the rationale as to why each objective is appropriate/was chosen for each classification. Note how SASP objectives compare to FAA guidance.
- The plan is very lengthy
- SASP did not contain up to date information after initial publication.
- SASP could include recommendations for funding which would help the state prioritize funding decisions.
- Clear zone policy should be integrated into SASP
- High level recommendations on the size of the system, is current size adequate, too small, too big?

Evaluation of past SASP Strategies

The following summarizes TAC input on the past SASP strategies associated with each objective (goal).

- Overall, it seems there are too many strategies.
- Some strategies appear too specific; higher level strategies may be more effective and provide more flexibility
Recommended SASP Objectives

Black text is from SMTP
Green text is feedback from SAC and other groups on objectives

Open Decision-Making
- Make transportation system decisions through processes that are inclusive, engaging and supported by data and analysis.
  - Leverage data and technology not currently being used
  - Finding better and consistent ways to track operations statewide is important
- Provide for and support coordination, collaboration and innovation.
- Ensure efficient and effective use of resources.
  - Having a link between the plan and funding is important

Transportation Safety
- Safeguard transportation users as well as the communities the systems travel through.
- Apply proven strategies to reduce fatalities and serious injuries for aviation.
- Foster a culture of aviation safety in Minnesota.
  - Safety regarding drone integration

Critical Connections
- Maintain and improve multimodal transportation connections essential for Minnesotans’ prosperity and quality of life.
  - Airport accessibility— ease of reaching valued destinations
  - Ensure regional connections
  - Multimodal connections
  - Partner with other organizations to promote aviation tourism connections
  - Last mile airport accessibility
- Strategically consider new connections that help meet performance targets and maximize social, economic and environmental benefits.

System Stewardship
- Strategically build, manage, maintain and operate all transportation assets.
  - Reasonably priced aviation experiences including certification, fuel purchases, maintenance, and hangar cost
  - Create a NAVAIDS plan to address age of infrastructure and new technology
- Rely on system data and analysis, performance measures and targets, agency and partners’ needs, and public expectations to inform decisions.
- Use technology and innovation to get the most out of investments and maintain system performance.
  - Creative solutions
  - Integrating emerging technologies
• Increase the **resiliency** of the aviation system and **adapt** to changing needs.
  - Create more users
  - Educating the public about the importance of GA and opportunities
  - More inclusive and open
  - System that responds quickly – Flexible system
  - Promote resiliency through airport self-sufficiency

**Healthy Communities**

• Make **fiscally-responsible decisions** that respect and complement the natural, cultural, social and economic context.
  - Minimal impact to the environment

• Integrate land uses and transportation systems to **leverage public and private investments**.
Recommended SASP Trends

**ENVIRONMENT**
- Aging Infrastructure – Update SMTP Airport Section
- New Logistics – Update Air Cargo portions of SMTP Trend
- Projected Revenues – Aviation Projected Revenues

**BEHAVIOR**
- Transportation Behavior - Update SMTP Air Service Section
- Pilot Trends

**ECONOMY**
- Commercial Service
- Aging Aircraft/Fleet Changes
- Project Funding

**TECHNOLOGY**
- Electrification & Alternative Fuels – Add section on Aviation Fuel Type Changes
- Navigation Technologies
- Unmanned Aircraft Systems/Drones – Replace SMTP Trend Paper

Note: bold and underlined trends will be studied more in-depth
How much does aviation contribute to the economic vitality of your community? On a scale of 1-10, average response was 8.

Aviation Trends ranked by importance:
1. Cost of becoming a pilot
2. Funding for airport improvements
3. Pilot Shortage
4. Community development encroaching on airports
5. Drones

90% of respondents think the state aviation system is safe or very safe.

What is the most important benefit of your local airport?

- Emergency Services: 33%
- Access to & from My Community: 30%
- Economic Development: 20%
- Seasonal Services (Ag Spraying, Recreational Charters): 15%
- Other: 3%

State Aviation System Plan Outreach Survey Results: Fly-ins, Airshows, & Conventions
Pilot Focus Groups

*Ideas for a better aviation system...*

**What we’ve heard - GA themes**

- Increased hangar accessibility
- Resources for airport improvements
- Aviation education and promotion
- Remove barriers to General Aviation
- Foster aviation opportunities

**What we’ve heard - Drone themes**

- Proactive, concise drone policy
- Drone education
- Airspace integration
- Drone regulation clearinghouse
Airport Classifications
AIRPORT CLASSIFICATIONS

As directed by Minnesota Statute (360.305 Subdivision 3), system airports are categorized in three classifications: Key, Intermediate, or Landing Strip airports. The number of airports in each of the classifications shifts over time along with the total number of system airports.

Since 1974 Key Airports have grown from 18 to 30; Landing Strips have decreased from 67 to 22; Intermediate Airports have grown from 53 to 83. The total number of airports in the state’s system has decreased from 138 to 135 since the 1974 SASP was completed. Figure 1-4 depicts these changes in the system over the past 20 years.

An airport, depending upon its classification, can be expected to have a range of existing and planned infrastructure as well as a unique role in the state’s economy. The three airport classifications are described on the following pages in terms of their aeronautical use and potential economic role.
**Key Airports:** Key Airports have a paved and lighted primary runway 5,000 feet or greater in length. Key Airports serve as the primary landing facilities for business jets, and are the only airport classification that supports regularly scheduled airfreight and airline service. They are capable of accommodating most business jets, all single-engine aircraft and larger multi-engine aircraft. These airports tend to be located near larger population and economic centers. Key Airports often house corporate flight and maintenance divisions for major employers, allowing businesses to connect to national and some global markets directly. There are currently 30 Key Airports in the state’s system.

**Intermediate Airports:** Intermediate Airports have a paved and lighted primary runway that is less than 5,000 feet in length. These airports are capable of accommodating all single-engine aircraft, some multi-engine aircraft, and some business jets. Intermediate Airports serve as landing facilities for flight training, aircraft maintenance, and general aviation aircraft up to the smaller business jet size. Intermediate Airports serve many roles in communities ranging from emergency medical transports to manufactured parts distribution. Intermediate Airports enable direct connections across Minnesota and the Central US region. There are currently 83 Intermediate Airports in the state’s system.
Landing Strips: Landing Strips have one or more turf runways which can accommodate most single-engine aircraft and some twin-engine aircraft. This type of airport may be unusable during certain conditions such as wet weather, winter months, and during the spring melt. A key function of these airports is supporting the agricultural industry with crop seeding and spraying services. There are currently 22 Landing Strip Airports in the state’s system.

National Plan of Integrated Airport Systems

The National Plan of Integrated Airport Systems (NPIAS) identifies airports that are significant to national air transportation. Airports designated as part of the NPIAS are eligible for FAA Airport Improvement Program (AIP) funding. The NPIAS is updated by the FAA every two years and comprises all commercial airline service airports, reliever airports and qualifying general aviation airports. Since the previous SASP was prepared in 2006, Cook and Glencoe Municipal Airports have been added to the NPIAS. There are 97 Minnesota airports in the current (2011-2015) NPIAS. As a result, there are 38 airports in Minnesota which do not qualify for federal funds and must rely completely on state and local funding. Figure 1-5 identifies Minnesota’s airports included in the NPIAS. Chapter 7: Investment Plan and System Recommendations includes further discussion concerning changes to the NPIAS.

FAA ASSET Study

In May 2012 the FAA released results of the Airport System Strategic Evaluation Task (ASSET) study, which reclassifies airports in the NPIAS. The new system uses function and economic impact to place airports into one of four categories: National, Regional, Local, or Basic. The FAA will incorporate the new categories in the 2013-2017 NPIAS Report to Congress. Although this 2012 SASP does not reference the new groups, MnDOT will evaluate the ASSET category assigned to each airport in Minnesota and use the new categories to help guide future system and airport planning decisions.
Minimum System Objectives

As noted above, the primary baseline used to determine airport facility requirements is a comprehensive list of minimum system objectives. These minimum objectives align with Federal Aviation Administration (FAA) airport requirements as well as Minnesota’s statutes on airport development. Where neither state nor federal guidance is available, commonly accepted industry standards are used. The minimum systems objectives are not intended to promote unnecessary airport development; rather, they are developed to ensure Minnesota’s airports have the necessary facilities to be safe and economically competitive, nationally and internationally.

### Table 5-2: Minimum System Objectives by Airport Class

<table>
<thead>
<tr>
<th>FACILITY</th>
<th>KEY AIRPORTS</th>
<th>INTERMEDIATE AIRPORTS</th>
<th>LANDING STRIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Runway Length &amp; Width</td>
<td>5,000 Feet 100 Feet</td>
<td>2,400 Feet 75 Feet</td>
<td>2,000 Feet 75 Feet</td>
</tr>
<tr>
<td>Parallel Taxiway Length</td>
<td>Full Parallel</td>
<td>Full Parallel if Airport Has More Than 20,000 Annual Ops</td>
<td>No Minimum</td>
</tr>
<tr>
<td>Primary Runway Approaches</td>
<td>Precision</td>
<td>Non-Precision</td>
<td>Visual</td>
</tr>
<tr>
<td>Navigation Systems</td>
<td>Wind Cone, Rotating Beacon, PAPIs, REILs &amp; MALSR or Other Approach Lighting System</td>
<td>Wind Cone, Rotating Beacon, PAPIs, REILs or Greater Approach Lighting System</td>
<td>Wind Cone &amp; Rotating Beacon if Airport is Lighted</td>
</tr>
<tr>
<td>Runway Lighting</td>
<td>HIRL for Airline Service and MIRL for All Other</td>
<td>LIRL or Greater</td>
<td>LIRL</td>
</tr>
<tr>
<td>Weather Reporting</td>
<td>AWOS/ASOS</td>
<td>AWOS/ASOS as Needed</td>
<td>No Minimum</td>
</tr>
<tr>
<td>Hangars (For Based Aircraft)</td>
<td>100 percent of Jets/TP 95 percent of SEP &amp; MEP</td>
<td>100 percent of Jets/TP 95 percent of SEP &amp; MEP</td>
<td>- 95 percent of SEP &amp; MEP</td>
</tr>
<tr>
<td>Aprons (For Based &amp; Transient Aircraft)</td>
<td>All Based Aircraft Not In Hangars + Peak Hour Itinerant Operations</td>
<td>All Based Aircraft Not In Hangars + Peak Hour Itinerant Operations</td>
<td>All Based Aircraft Not In Hangars + Peak Hour Itinerant Operations</td>
</tr>
<tr>
<td>Terminals &amp; GA/Administration Buildings</td>
<td>Terminal at Airline Service Airports &amp; GA/Administration Building at Non-Airline Service</td>
<td>GA/Administration Building</td>
<td>Restroom</td>
</tr>
<tr>
<td>Automobile Parking</td>
<td>1 Space for Each Based Aircraft &amp; 50 percent Increase for Employee and Visitor Parking</td>
<td>1 Space for Each Based Aircraft and 25 percent Increase for Employee and Visitor Parking</td>
<td>1 Space for Each Based Aircraft</td>
</tr>
<tr>
<td>Perimeter Fencing</td>
<td>Entire Airport</td>
<td>Entire Airport Desirable</td>
<td>Separate Auto from Airside</td>
</tr>
<tr>
<td>Fuel Facilities</td>
<td>24 Hr. 100LL &amp; Jet A</td>
<td>24 Hr. 100LL Desirable</td>
<td>100LL as Needed</td>
</tr>
</tbody>
</table>


Source: MnDOT Office of Aeronautics
Discussion Questions

The meeting will include a discussion on airport classification. We will be collecting the SAC’s best ideas on this topic. Please review and consider the following questions and come prepared to share your thoughts.

**Related to MN Classification:**

**Current Classification System/Use**

- What do you think works well?
- What benefits are there of our current classification system?
- What challenges does our current classification bring to MnDOT, airport sponsors, other stakeholders, etc.?
- What challenges does grouping all paved airports below 5,000 feet together bring? What are the benefits?
- Key Airports - What are the challenges and benefits of grouping GA and Commercial Service together in this classification?

**Potential Use of Classification System:**

- Regarding how MnDOT uses the current classification system, what are the benefits and challenges?
- How could MnDOT use the classification of airports differently?
- What problems could MnDOT solve by referring to classification of airports? (Does MnDOT have an example of a problem that it could consider referring to the classification system to solve?)
- What decisions could the classification of airports inform? At the state level, at the local level, etc.
- Classification of airports could inform what types of decisions?
**Potential Classification System**

- How could airports be classified differently?

- Should classification be role based or facility based? Note that facilities at an airport don't always match the role that an airport is currently serving.

- If facility based, should it refer to more than runway length? For example, a small airport (paved or unpaved), such as Forest Lake, is a high activity airport and plays an important role in the metro area. It doesn't fit the same 'role' as say Backus. Could a facility based classification consider number of hangars, number of based aircraft, types of instrument approaches, etc.

- What would be the benefits of a role based system?

- What would be the challenges of a role based system?

- How could a role based or facility based classification system inform future changing needs in the system?

If you have knowledge regarding other states’ classification systems, please also consider the following questions.

**Related to other states:**

- What do you like about how other states use their classification system?

- What challenges do you see with how a particular state uses its classification system?

- What do you like about other states classification systems? Why?

- What do you not like, or think wouldn't work well in Minnesota, about how other states classify airports?