

CHAPTER NINE: RECOMMENDED PLAN & POLICIES

INTRODUCTION

With analysis of Arizona's future airport system needs and the costs to implement the recommendations complete, the steps associated with implementation can be determined. This final chapter of the Arizona State Airports System Plan (SASP) provides an overview of the analysis and recommendations identified throughout the planning process. This plan was developed so that it is consistent with Arizona's goals for development, economic support, safety and standards, and environmental sensitivity and stewardship. The Arizona SASP was developed using a process that results in the identification, preservation, and enhancement of an aviation system to meet the state's long-term needs. This chapter also presents a summary of policy issues related to implementing recommendations and action items for the stakeholders of the system.

The SASP provides a 20-year outlook (through 2030) for the state's aviation needs. The system planning process was developed to ensure that ADOT remains responsive to air transportation needs by identifying roles and characteristics for existing and new airports. Airports in Arizona continue to evolve to respond to changes in the communities they serve and the aviation industry trends. The facility and service objectives established in this plan are a general guide and frame of reference for balanced development. More detailed design, planning, and environmental analysis for airports will be accomplished as part of individual master plans. Actual development is driven by local needs and decisions. Any airport project will be required to meet eligibility and justification guidelines before being eligible for funding.

The SASP provides ADOT with an important tool to monitor the ability of airports to meet customer needs. The plan also provides a means to measure the effects of investment on the performance of the Arizona airports system. Over the next 20 years, federal, state, local, and private funding will be needed to ensure that the aviation system meets goals established in this study. It is estimated that at least \$2.5 billion will be needed over the next 20 years if airports in Arizona are to respond to objectives set by the SASP. This does not include additional airport needs not identified in the SASP but currently identified in airport-specific planning efforts.

Information from the SASP may be used to update the FAA's National Plan for Integrated Airport Systems (NPIAS) that is provided to Congress on a biannual basis, especially the identification of funding needs for the system. The SASP may also be used by individual airports to update master plans and airport layout plans (ALPs).

In future years, the plan will enable ADOT to measure the change in system performance. By tracking key indicators for the airport system (presented in this report in the form of performance measures) it will be possible for ADOT and FAA to formulate strategies for responding to Arizona's air transportation needs. The SASP provides a guide for the state and its communities to ensure that the vision established for the Arizona airports system can be achieved as the system continues to develop in the future.

SUMMARY OF SASP PROJECT RECOMMENDATIONS

It was estimated that it will cost \$2.45 billion over the next 20 years just to meet the goals developed for the SASP. To recap, the goals include:

- **Development** – Arizona should provide an airport system that is adequately maintained to meet current and projected demand and is easily accessible from both the ground and the air.
- **Economic Support** – Arizona should advance a system of airports that is supportive of Arizona’s economy, ensuring that the airport system is matched to Arizona’s socioeconomic and demographic characteristics.
- **Safety and Security** – Arizona should provide for a safe airport system, as measured by compliance with applicable safety and security standards to support health, welfare, and safety-related services and activities.
- **Environmental Sensitivity and Stewardship** – Arizona should promote a system of airports that is considerate of the environment and supports aviation programs and outreach opportunities in Arizona.

Through the use of performance measures under each of these goal categories and the development of airport roles, system performance was evaluated. With the evaluation complete and outside influences considered, recommendations for improving the airport system were developed. Highlights of SASP findings and recommendations include:

- **Safety-Related Projects** – Safety is by far the most important priority for ADOT Aeronautics. The state and its airports have devoted a great deal of effort and resources to continue to improve safety at their facilities. However, the SASP showed that additional improvements are needed to meet FAA standards. As presented in Chapter Six, Figure 6-47, just 67 percent of airports have clear approaches to their primary runways. In addition, just 60 percent of airports meet FAA standards for RPZs, RSAs, and runway-taxiway separation. (See Figures 6-49, 6-50, 6-51.) Although no specific projects were recommended for these measures due to the in-depth analysis required to identify needed improvements, it is recommended that the state work closely with the airports to improve performance of these measures in the near-term.
- **Land Use Planning Recommendations** – ADOT also recognizes the importance of having appropriate land-use planning in place to protect its airport resources. Just 31 percent of system airports noted that they have a published disclosure area compliant with Arizona statutes. (Shown in Figure 6-34.) In addition, less than half of system airports have FAR Part 77 height zoning in place. ADOT should work closely with airports to improve the performance of these measures.
- **Operational Capacity Concerns** – As discussed in Chapter Six and presented in Figure 6-29, 11 system airports (13 percent) currently exceed the demand/capacity ratio of 60 percent, the point at which the FAA suggests airport planning for improved operational capacity. Six more airports will exceed this ratio by 2030 based on SASP projections of activity. While there are a few airports with plans for capacity improvements, the state should continue to work with airports, especially those in the Phoenix and Tucson metro areas, to find solutions to improve operational capacity.

- **Pavement Maintenance** – Chapter Eight noted that the cost of maintaining existing pavements in Arizona over the next 20 years accounts for 50 percent of the all SASP-related costs (\$1.2 billion). This points to the large need just to maintain existing facilities and the importance of a continued statewide pavement program.

As a result of the projected shortfall between the total development costs shown in the SASP and actual funding levels, it is important to prioritize spending on projects recommended by the SASP in order to direct available funding to projects that will improve the system's performance the most. For example, if an airport meets the approach facility objective, it may also help improve the performance of several measures including percent of population within a 30-minute drive time of an airport and the number of airports with an instrument approach, percent of population and area within a 30-minute drive time of a system airport meeting business user needs, percent of airports capable of supporting emergency medical transport aircraft, and percent of population within a 30-minute drive time of an all weather runway.

FUTURE NPIAS CONSIDERATIONS

Airports included in the FAA's NPIAS are eligible to compete for project funding from the federal Airport Improvement Program (AIP). According to the FAA's 2009-2013 NPIAS published September 30, 2008, there are 59 airports in Arizona included in the NPIAS.¹

Appendix C presents the criteria used by the FAA to determine whether or not an airport qualifies for the NPIAS. These criteria were applied to several non-NPIAS airports in Arizona to examine their ability to currently meet FAA NPIAS qualifications. This information is developed for informational purposes only. The state and non-NPIAS airport sponsors should continue to monitor airport activity and each airport's ability to meet other eligibility criteria for inclusion in the NPIAS.

As Arizona grows and demand for aviation resources increases, the airport system may also need to grow and expand. If the system grows as projected, certain airports may become good candidates for NPIAS standing. In SASP analysis, several areas in the state were recognized as potentially needing new or replacement airports. In all instances, this need had already been identified or was in the process of being studied through state or locally supported airport feasibility/site selection studies. The SASP recognized the need for additional or replacement airports in the following areas of the state:

- Pinal County- City of Maricopa Airport (new)
- Superior- Superior Airport (replacement)
- Tribal Airports
 - Navajo Reservation - Ganado (replacement), Pinon (new), and Lukachukai/Teec Nos Pos area (new)
 - Hopi Reservation - Polacca (replacement)
 - White Mountain Apache Reservation - Cibecue (replacement)

If Maricopa and Superior airports are developed in the future, facilities and services should be commensurate with the SASP objectives outlined for the General Aviation-Community airports. Depending on final development of the airports and the status of the FAA's program, these airports could be considered by the airport sponsor for eligibility in the NPIAS in the future.

¹ It should be noted that Ganado Airport, which is closed, is included in the FAA's 2009-2013 NPIAS.

Although the tribal airports are not currently eligible for state funding participation, it is recommended that these airports be developed in accordance with the SASP’s GA-Rural airport facility and service objectives. Polacca and Cibecue airports are currently and should continue to be included in the NPIAS when replaced. Consideration of the ability of the Navajo airports to meet NPIAS criteria such as based aircraft should be evaluated to determine if they could also achieve NPIAS status.

In addition to new system airports, the SASP concluded that activity at and conditions near Rolle Airport should be monitored for the airport’s possible inclusion in the NPIAS. Although the airport does not currently meet the based aircraft criteria for inclusion, Yuma International Airport is the only other airport with a NPIAS designation in the region. Yuma is projected to experience large demographic growth through 2030. In addition, Yuma International was operating at 66 percent of capacity in 2007 and is projected to reach 91 percent by 2030. The Marine Corps Air Station (MCAS), located at Yuma International, has also noted plans to expand in its five-year plan. Yuma international Airport has recognized that an improved general aviation airport nearby, namely Rolle, could help relieve future congestion. Monitoring of the conditions in this area is warranted to determine if Rolle could be considered by the FAA for NPIAS inclusion.

FUTURE RELIEVER CONSIDERATIONS

Reliever airports are NPIAS airports designated by the FAA to relieve congestion at commercial service airports and to provide improved general aviation access to the overall community. Criteria for a Reliever airport includes current activity levels of at least 100 based aircraft or 25,000 annual itinerant operations. A Reliever airport must relieve a commercial service airport that serves a metropolitan area with a population of at least 250,000 persons or at least 250,000 annual enplaned passengers. The relieved airport also must operate at or below 60 percent of its capacity. Currently, there are nine airports in Arizona that have reliever status including:

- Phoenix Sky Harbor International Reliever Airports
 - Chandler Municipal
 - Glendale Municipal
 - Phoenix Deer Valley
 - Phoenix Goodyear
 - Phoenix-Mesa Gateway²
 - Mesa Falcon Field
 - Scottsdale
- Tucson International Reliever Airports
 - Marana Regional
 - Ryan Field

Despite the current presence of seven reliever airports in Greater Phoenix, projections of future aviation demand due largely to the recent and projected population growth of the Phoenix Metropolitan Statistical Area may require greater reliever capacity. Buckeye Municipal and the proposed Maricopa Airport were included in an analysis of Reliever candidate airports found in **Appendix D**. This analysis is presented for informational purposes and airport sponsors must pursue FAA-defined Reliever status.

²It should be noted that while the most recent FAA NPIAS (2009-2013) still shows Phoenix-Mesa Gateway as a Reliever airport, that the airport should be classified as a Primary Commercial Service Airport. This airport has maintained commercial airline service and has surpassed the 10,000 annual enplanement mark.

It was noted in the analysis that neither Buckeye Municipal nor the proposed Maricopa Airport (if and when developed) meets the current activity criteria for consideration as FAA Reliever airports. Activity at these airports and other airports near Phoenix Sky Harbor and Tucson International should be monitored for future consideration as Reliever airports.

IMPLEMENTATION OF SASP RECOMMENDATIONS

ASM Database Coordination

An important component of the SASP is the inclusion of key pieces of data in the comprehensive ADOT Airports System Manager (ASM) database. This system allows ADOT to track comprehensive data related to the planning and evaluation of its aviation facilities. Currently, project funding, Airport Capital Improvement Plan (ACIP) information, and aircraft registration are all included in the ASM database. The following information from the SASP is also included in the ASM upon conclusion of the study:

- All information from the 12-page inventory forms completed through the on-site inventory process has been uploaded into ASM. Much of this information is presented in Chapter Three of the SASP and was used to perform the system performance analysis presented in Chapter Six. The database includes the following items collected during the inventory effort of the SASP :
 - Airport information (sponsor name, contact, phone number, hours attended)
 - Aeronautical activity (based aircraft, operational mix, design\critical aircraft, recreational aircraft)
 - Aeronautical services
 - Scheduled airline activity
 - Air cargo activity
 - Activities (business, training, sport and recreational)
 - Airside facilities
 - Landside facilities and ground access
 - Landing aids
 - Weather/communications
 - Approach minima and protection standards
 - Ordinances (enacted locally)
 - Land use/regulatory
 - Airspace/obstructions (constraints and design standards)
 - Ownership/management
 - Capital improvements
 - Operations/maintenance
 - Emergency services
 - Special aviation uses (such as military, pilot training, firefighting support, skydiving operations, glider operations, etc.)
 - Major airport users
 - Security measures
- Bar charts presented in Chapter Six, Current System Performance, and the corresponding data has been integrated into ASM. This will allow ADOT to monitor and track improvements in performance as airports implement recommendations related to the SASP.

- Recommended project lists developed for each airport in the analysis of system needs that are associated with improving performance have been included in ASM. These projects are associated with SASP performance measures and have costs relative to the improvements. These project lists will be helpful to ADOT as the agency works with airports in determining priorities for both the state and the local airport sponsors.

It is intended that ADOT will frequently update the database when new information is received from airports and as projects are completed. It is likely that ADOT will routinely request, either annually or biannually, updated information from the airports as the agency tries to maintain accurate data on the existing system and its needs. The data included in the ASM database will be easily updatable for future system analysis, including evaluation of investment in the aviation system and its relationship to improved system performance.

Continuous Planning

The state recognizes the importance of continuous planning as a way to measure the success of the airport system to meet the goals established in this SASP. This study draws many comparisons to the previous system plan, the 2000 State Aviation Needs Study (SANS), and recorded the changes that have occurred since the previous plan. The system performance changes since 2000 were documented in Chapter Six. As part of the continuous planning effort, system performance can be monitored and additional studies undertaken.

Monitoring System Performance

One element of the continuous planning process addresses needed updates. The final section of this report has identified steps for keeping the SASP current in accordance with objectives established in this study. In addition to these updates, the following actions are also recommended as part of the continuous planning process.

- **Annual SASP Data Updates** – As conditions at system airports change and improvements are realized, it is recommended that ADOT update the airport-specific data included in the SASP. ADOT’s ASM database provides a mechanism for keeping the data used in the SASP current. Using ASM capabilities, ADOT could provide an electronic survey to each airport to review the data included in the SASP and allow them to make changes and corrections.
- **Future Airports System Plans** – The SASP provides ADOT with a blueprint for the development of its airport system over the next 20 years. As the aviation industry changes over time, Arizona’s airports grow, and the state’s socioeconomic and demographic characteristics change, the system plan should again be updated. It is recommended that ADOT consider updating the system plan in 5-year intervals with the next update in the 2014-2015 timeframe.
- **Master Plans** - The SASP concluded that it was desirable for all airports to have current master plans and ALPs. It is the recommendation of this plan that each of the airports in Arizona consider updating their master plans/ALPs every five to seven years. It should be noted that recent FAA guidance indicates that funding of master plans will be based on changes at an airport that warrant airport improvements, not just on a set timeframe.

Special Studies

There is often a need for follow on special studies that are desirable to address needs identified during the system planning process. As part of the continuous system planning process, the need for the following special studies has been identified:

- **Airport Operational Capacity and Airspace Capacity Study** – The Arizona aviation system should provide ample operational capacity. The SASP performed a cursory review of operational capacity at the system airports. Most airports in the Arizona system currently operate well below the capacity threshold and will continue to operate below the threshold throughout the 20-year forecast period. As noted in Chapter Seven, 17 system airports are expected to exceed the FAA demand/capacity trigger of 80 percent, including nine airports in the Phoenix Metro area and three airports in the Tucson Metro area. No capacity-related targets were established in the SASP due to the level of analysis and the need for individual airports to determine their ability to increase capacity. It is recommended that a state study that will further investigate increasing capacity, including the possible development of new system airports, be considered as operational delays continue to increase.

In addition to operational capacity, airspace congestion continues to be a major issue in Arizona. While the FAA, not the state, has influence over changes to airspace patterns, the state can provide appropriate information to appropriate stakeholders. In addition to airspace congestion in the major metropolitan areas, congestion in areas near and around the military facilities and ranges has been of particular concern. The advent of unmanned aerial vehicles (UAVs) over the last few years also has potential to impact airspace in Arizona as well. A comprehensive examination of what the integration of UAV activity means to the state's airspace may be appropriate.

- **Economic Impact Study** – An economic impact study was prepared for the Arizona airports in 2002. The data in this study is now dated, especially given the changes in the economy and the aviation industry. It is a recommendation of the continuous planning process that a comprehensive economic impact study be conducted for the airports in Arizona. This study would identify current jobs, payroll, and annual economic activity attributable to each system airport. This study can also help airports have a better understanding of their airport users and the qualitative contribution of each airport to the community and region it serves. It is recommended that airports are provided with their individual information for use in their local communities.
- **Land Use Compatibility Guidance** – In 2007, The Governor's Advisory Council on Aviation (GACA) noted the need for the state to further commit to compatible land use planning through airport legislation. The SASP noted that incompatible land use in the airport environment has the potential to limit the future growth and development of airports in Arizona. Recognizing this fact, follow-on steps should be taken to update the guidelines for land use compatibility. Land use compatibility can generally be described as the compatibility of the area around each airport where the height of objects should be limited so as not to impede safe airport operations, where noise impacts could most logically be expected, and where typical aircraft traffic patterns would occur. Additional guidance for community adoption of compatible

land use code could be used by all system airports to enable them to better meet the system plan's safety objectives.

- **Runway Approach Obstruction Study** – One of the objectives for the Arizona airport system is for all system airports to have clear approaches to both ends of their primary runway. Just over half of the system airports currently meet this objective. To meet this objective, it is recommended that a follow-on study be conducted. Coordination and meetings with each of the airports and municipalities would be included as part of this follow-on study. ADOT could confirm the extent of the obstructions at each of the airports that do not have clear approaches to both ends of the primary runway as noted in the SASP. If an airport has additional runways, analysis should also be conducted for these runway ends as well. The study could also include the development of a model height zoning ordinance that would be taken to each municipality. The objective would be to have all municipalities tailor the model zoning ordinance to their particular situation, and for each to adopt a height zoning ordinance, while ensuring unobstructed approaches to each airport's primary runway. Follow-on study is needed to identify where obstructions cannot be resolved and to determine where obstructions have been mitigated through lighting. If a state study is not feasible, the state should consider the inclusion of obstruction analysis in state-funded projects.
- **Pavement Management Plan (Continuous)** – One of the objectives for the system plan is for all airports to have a pavement condition index (PCI) of at least 70 on their primary runways. ADOT currently has the Arizona Pavement Preservation Program (APPP) to meet and maintain this objective. This program has not been funded for several years. It is a recommendation of the continuous planning process that as part of the APPP, the Airport Pavement Management System (APMS), which evaluates the pavement conditions, continue to be conducted on a regular basis. This will identify current pavement condition, possible maintenance or rehabilitation projects, and costs attributable to each system airport. The last year that APMS was conducted for ADOT was in 2007 and will need to be conducted again in 2010.
- **Regional Aviation System Plan for Pinal County** – As noted in Chapter Seven, the population of Pinal County, located between the Phoenix and Tucson Metro areas along I-10, is the fastest growing county in Arizona and experienced the third- highest rate of population growth in the U.S. between 2006 and 2007. The population of Pinal County is expected to triple through the 2030 forecast period. It is recommended that a detailed study regarding the impact of this growth on aviation be undertaken. A regional aviation system plan (RASP) for Pinal County airports could provide guidance and recommendations for accommodating the future growth in this region.

POLICY RECOMMENDATIONS

Arizona’s aviation system is governed, regulated, and monitored according to Arizona Revised Statutes (ARS), State Transportation Board (STB) Aviation Policies, and guidelines included ADOT’s Five-Year Airport Capital Improvement Program (ACIP). Policy considerations relative to each of these three areas are provided below.

Arizona Revised Statutes Title 28 – Chapter 25 Aviation

ARS Title 28, Chapter 25 addresses aviation. The eight articles in the ARS address issues ranging from the operation of the Aeronautics Division to aircraft operation, aircraft registration and taxation, aircraft dealers, airports, airport zoning and regulation, and joint powers airport authorities.

Grand Canyon National Park Airport

One of the most challenging of the statutes requires the ADOT director to operate and maintain the Grand Canyon National Park Airport. While operating and maintaining the airport in and of itself can be accomplished, the funding for the airport is included in the State Aviation Fund which is subject to the annual legislative appropriations cycle. This airport is the only one in the state operated by ADOT and funded strictly through the State Aviation Fund. In addition, one of the articles (*Article 28-8204, State owned airports; fees*) sets the framework for the types of fees that can be charged at the airport. The airport is subjected to regulatory processes imposed on other state agencies. All of the employees are state employees, placing limitations on the salary structure compared to other airports of comparable size and complexity. Other regulatory process issues include the process to procure necessary equipment and contracting for services.

The ownership and maintenance of the Grand Canyon National Park Airport has been evaluated in the past and at one time an airport authority was established to address these issues. However, the same regulatory issues were applied to the airport authority, limiting the ability of the organization to change the airport’s structure significantly. Consideration continues to be given to possibly changing the responsibility for management and operation of the airport. A similar position was posed as part of the 2007 Governor’s Advisory Council on Aviation Final Report.

Compatible Land Use Planning

Finally, through ARS–Title 28, Chapter 25, the option of the state or the governing body of a political subdivision to establish an airport influence area is provided. The statute identifies property in the vicinity of the airport “that is currently exposed to aircraft noise and overflight and that either has a day-night average sound level of 65 decibels or higher or is within such geographical distance from an existing runway that exposes the area to aircraft noise and overflights as determined by the airport owner or operator” as potentially included in the airport influence area. After notification and conducting a hearing, the political entity that has established an airport influence area must file a record of the area in the office of the county recorder in each county that contains property in the airport influence area. As part of the record, owners or potential purchasers of property in the airport influence area will receive notification that property in the area is currently subject to aircraft noise and aircraft overflights.

This statute provides a means for airports to educate those in their environs of the potential noise and overflight issues associated with airports. There are separate statutes that address military airports and their disclosure and these have been widely implemented. While many airports may have airport influence areas, less than 30 have taken the next step in implementing public disclosure through the Arizona Department of Real Estate (ADRE). *Article 7, 28-8486. Public airport disclosure; definitions* denotes that the ADRE “shall have and make available to the public on request a map showing the exterior boundaries of each territory in the vicinity of a public airport.” The ADRE is to work with each public airport and affected local government “as necessary to develop a map that is visually useful in determining whether property is located in or outside of a territory in the vicinity of a public airport.”

While these two statutes provide for some airport zoning and regulation, there are no requirements and no penalties for not implementing airport influence areas or public airport disclosure. Because of this, encroachment is worsening around airports, limiting expansion potential and creating additional impacted areas. Consideration of additional aviation legislation was proposed by the Governor’s Advisory Council on Aviation to address compatible land use planning related to airports.

Tribal Airport Funding Eligibility

Historically, airports owned by Native American communities have not been eligible to receive ADOT funding, even though some of the airports are eligible for FAA funding (due to their inclusion in the NPIAS). This lack of funding has meant limited maintenance and development of many of the Native American owned and operated airports. These airports are typically located in less populated areas of the state. Several of the airports are used primarily for transport of physicians and patients for medical purposes and access to these more rural and sometimes remote areas. For those reasons, these airports do contribute to Arizona’s aviation system and have been included in the SASP for analysis of statewide needs.

The eligibility for Native American airports has been considered through legislative action in the past but to date, these airports remain ineligible. Continued consideration of the importance of these airports to the system and to their communities should be pursued as part of the aviation funding policies.

Arizona STB Aviation Policies

As noted, the ARS establishes the laws that govern the state’s aviation system. Arizona’s State Transportation Board is responsible for developing rules to administer the ARS and create statewide transportation policies. There are six State Transportation Board policies applicable to the State Airports System, which were adopted as current policy on October 18, 2002 (Fiscal Year 2003). ADOT is currently evaluating potential revisions to the FY 2003 STB policies; therefore this analysis presents issues only as they relate to the SASP’s potential affect on the policies.

The 2003 STB Aviation Policies includes a definition of the State Aviation System. This definition is important as it describes the division of airports into two systems for planning and administrative purposes. It also describes airport categories within the two systems. As part of the SASP, updated airport roles or classifications have been identified. These roles or classifications could be utilized in the definitions of the system for the proposed policies.

The six STB Aviation policies are:

- Loan program
- Airport pavement management program
- Planning guidelines
- Priority rating system
- Resource allocation
- Small Community Air Service Pilot Program

Based upon the results of this SASP, several modifications could be considered within these policies.

Planning Guidelines

The current STB policies contain guidelines related to the development of airports within the primary and secondary airport systems. Through the SASP process, new airport roles or classifications were developed based on an analysis of how each airport functions within the system. A quantitative process was used to evaluate each airport according to over 20 different measurable factors that relate an airport's function to the goals of the system. Through this process five airport role categories were defined, each with facility and service objectives specific to the category. The airport roles and facility and service objectives developed during the SASP could be considered to be "updated planning guidelines" for purposes of STB or ADOT Aeronautics policy and procedures.

Priority Rating System

Through the SASP, a review of the current priority rating system and a summary of other states' systems were conducted. This review complemented the SASP's analysis of the system's performance and the costs of improving system performance through 2030, providing a comprehensive analysis of future needs and information for assessing the priority rating system. Based on the results of the SASP, several potential considerations for changes to the priority rating system were noted:

- **Point System Structure** –The point system structure for ranking projects currently favors airports that can score high on certain factors that may be completely unrelated to the specific project funding request. Therefore, ADOT Aeronautics could consider changing the point system to ensure all points awarded are applicable to the project that they are supporting. Examples would include eliminating points for a high ratio of operations to 60 percent annual service volume (ASV) on a landside project, but keeping it on airfield-related projects which truly address capacity such as a secondary runway. A similar example is the waiting-list-to-based-aircraft ratio and enplanement levels. These factors should not be considered on projects with no relationship to these factors. In addition, the waiting list and enplanement figures may be misrepresentative of any ACIP needs at an airport. The points for these factors and the points assigned for airport operations may also skew the priority rankings among projects.
- **Project Definitions** –Today, many project components lack a specific definition to help sponsors determine if their project aligns with the purpose of the project component. This is important to the state to ensure that a project is truly eligible for the point value assigned to that component. Specific examples include fire protection with 80 points and security fencing with 60 points, which are two of the high-point

value projects that lack a clear definition. Fire protection may be funded for its high priority point value, but the actual improvement might offer more to enhance utility infrastructure if there is little need for fire protection. Each project component should have a definition that spells out the “what and why” of each project so the sponsor understands the eligibility of the project before including it in the online ACIP. This effort should not fully eliminate the flexibility in funding projects, but it should help separate and elevate the more critical projects. This effort should also help minimize the time and effort that ADOT Aeronautics spends in addressing project component errors in the ACIP and sponsor questions about the same.

- **Eligibility of Sponsor/Project For Land Use Concerns** – It is recommended that airport sponsors be held more accountable for incompatible land use development, but in a more proactive manner that requires the sponsor define, implement, and enforce land use controls just as they would with any other important development area in the community. In the future, when considering specific project funding, ADOT could base eligibility on the airport’s implementation of land use protection. The goal should be to better educate sponsors on the importance of protecting their airport environs so it becomes important to them, particularly under the umbrella of their own community-wide needs, financial constraints and politics, rather than placing more responsibility on the state to enforce something that the sponsors do not fully understand.

Resource Allocation

Distribution of the State Aviation Fund begins with the state legislature’s allocation of funds for ADOT’s aviation-related operational costs. Monies are allocated to ADOT’s Motor Vehicle Division for expenses associated with the aircraft registration function, to the Multi-Modal Transportation Planning Division for the Aeronautics Group’s airport development task, and to the Transportation Services Group’s Physical Plant Operations section for the operation of the Grand Canyon National Park Airport. Subsequently, the legislature allocates funds to the Aeronautics Group for its airport development program and state aviation planning services. The airport development program includes federal/state/local matching grants, state/local grants, loans, and the airport pavement preservation program.

Per the current STB policy, state/local grant funds are divided into three categories: commercial service/reliever airports, other primary airports and secondary airports. The allocation formula currently in place directs 80 percent of available funds to the commercial service/reliever airports. Other primary airports receive 18 percent of available funds and secondary airports receive two percent.

The SASP determined financial needs based on updated airport roles and performance measures. Using those standards, the financial needs of airports generally correlate well with the existing distribution of funds among the state’s airports. The SASP did, however, identify specific costs by performance measure. Consideration could be given to developing programs, such as the current statewide Airport Pavement Preservation Program, with funding being allocated to those programs before it’s assigned to the airport categories.

Because the pavement preservation program has been so successful at helping to manage pavement maintenance priorities on a statewide basis, consideration could be given to creating similar programs that would help manage other performance issues on a system-

wide basis. Such changes would be more effective in combination with changes to the system point structure, which will be discussed later.

A program that could be beneficial to the implementation of SASP recommendations, enabling project prioritization from a system standpoint instead on an airport standpoint, is safety. Safety projects could compete against each other for priority, without regard for airport-specific point ratings. This could cause safety projects to be considered solely based upon their importance to the system and the particular airport. Other programs that might be similarly considered are AWOS, land acquisition, security and capacity.

An advantage to a programmatic approach is a program project would be prioritized within the system rather than being considered after funding had been allocated to the three different airport categories. This process would enable projects to be prioritized based upon their importance to the system and the airport.

Small Community Air Service Pilot Program

A STB policy was created to address air service throughout Arizona and to maximize funding that may be provided through the USDOT for the Small Community Air Service Development Program. Based on grants that were provided by USDOT to several of Arizona's smaller commercial service airports, this policy allowed for matching funds to be dedicated to air service improvement. This policy has not been utilized in several years by any Arizona airport and it is dependent on the federal program's long-term availability. At the present time, this federal program is being considered for deletion, thereby making the STB policy unnecessary.

Five-Year ACIP Guidelines

The Five-Year ACIP allocates funds for eligible projects from the State Aviation Fund and distributes these funds across four major funding categories: the Airport Development Grants Program; Airport Loan Program; Airport System Planning; and the Airport Preventive Maintenance Services. The guidelines used to distribute the funds in each of these categories have resulted in Arizona's current aviation system development. The guidelines implement the STB policies which are currently under review. At such time as the STB policies are revised, the Five-Year ACIP Guidelines should be revisited to provide additional information to airports.

CONSIDERATION FOR ADDITIONAL PROGRAM FUNDING

The state of The State of Arizona has long recognized the importance of its system of airports to the state’s economy and its citizens’ quality of life. To support the airport system, a dedicated source of revenue to fund airport improvements has been in place since 1970. During FY2008, Arizona’s airports benefited from \$20.8 million of state funded improvement projects. However, in FY2009, due to state budget issues, only \$2.5 million was available. Budget issues continue to threaten the State Aviation Fund and airport grants.

Although FAA grants provide much-needed additional funding to improve the airport system, they will not provide enough funding to support the development of projects identified in the state CIP, individual airport CIPs and master plans, and through the system planning process.

Between FY2010 and FY2030, the SASP estimates that approximately \$2.5 billion will be necessary to improve Arizona’s airport system based on system objectives alone. If all other airport needs are included, an estimated \$9.7 billion or \$486 million per year will be needed. If approximately \$100 million is available from federal, state and local sources in each of those years, a total of \$2.0 billion will be available to respond to the needs. This assumes that future sweeps of the State Aviation Fund will not occur. As presented in **Figure 9-1**, the gap between estimated needs and available funding through 2030 could reach \$7.7 billion

Figure 9-1: Estimate of Funding Shortfall 2010-2030 (in millions)

Estimated Funding Requests for SASP Needs 2010-2030	\$2,451.82
Plus Additional Airport/State Needs 2010-2030	<u>\$7,269.56</u>
Equals Total Need 2010-2030	\$9,721.38
Minus Estimated Available Funding by FAA/State/Local	<u>\$2,000.00</u>
Equals Estimated State Shortfall 2010-2030	\$7,721.38

Source: Wilbur Smith Associates

It is apparent that additional funding is critical to Arizona’s airport system. If sweeps of the State Aviation Fund continue, it will be extremely detrimental to the system. A dedicated and protected State Aviation Fund is needed to ensure that the existing system will continue to be maintained and meet the state and local objectives into the future.

SUMMARY

Besides being a critical transportation link locally, regionally, nationally and internationally, airports are important economic catalysts. Employers throughout Arizona agree that commercial and general aviation airports are vital to business attraction, development and retention. By responding to performance measures, benchmarks and facility/service objectives outlined in the Arizona State Airport Systems Plan, Arizona will have a flight plan that will take it through 2030 and beyond

It is important to note that the Arizona State Airports System Plan is not a programming or implementation document. The SASP is a resource document that ADOT can follow to provide an aviation system that will meet the air transportation needs for Arizona, now and into the future. The SASP is a “top down” planning analysis. Findings from this plan must still be implemented by individual airports from the “bottom up.”

Over the next 20 years, this plan has shown that an annual average of \$486 million will be needed to raise the performance of the Arizona airports system and to respond to the needs that the airports themselves have identified. Arizona is expected to experience a great deal of population and employment growth. A well-maintained and developed aviation system is an important component of the state’s multi-modal transportation system.