

CHAPTER TWO: REVIEW OF CURRENT POLICY

INTRODUCTION

In recent years, the aviation industry has faced a number of major shifts impacting the technology, regulations, and economics of flight. While some trends affect airports across the globe, others will be realized differently in Arizona. Policies—including those governing aviation—arise out of specific historical contexts and are driven by complex variables such as economic, geopolitical, and demographic conditions. Over time, all policies should be re-evaluated to ensure their continued efficacy and appropriateness to govern existing and projected future conditions.

This chapter provides an overview of Arizona’s current aviation-related policies to serve as the framework for a subsequent evaluation of these policies’ continued ability to meet the needs of Arizona’s residents, visitors, and businesses. It also provides important background information for the policy recommendations that will be developed as one of the final outcomes of the 2018 SASP Update. A comparison of the duties assigned to the Arizona Department of Transportation (ADOT) Aeronautics Group with other states is also provided to help inform future policy recommendations.

REVIEW OF CURRENT STATE POLICIES

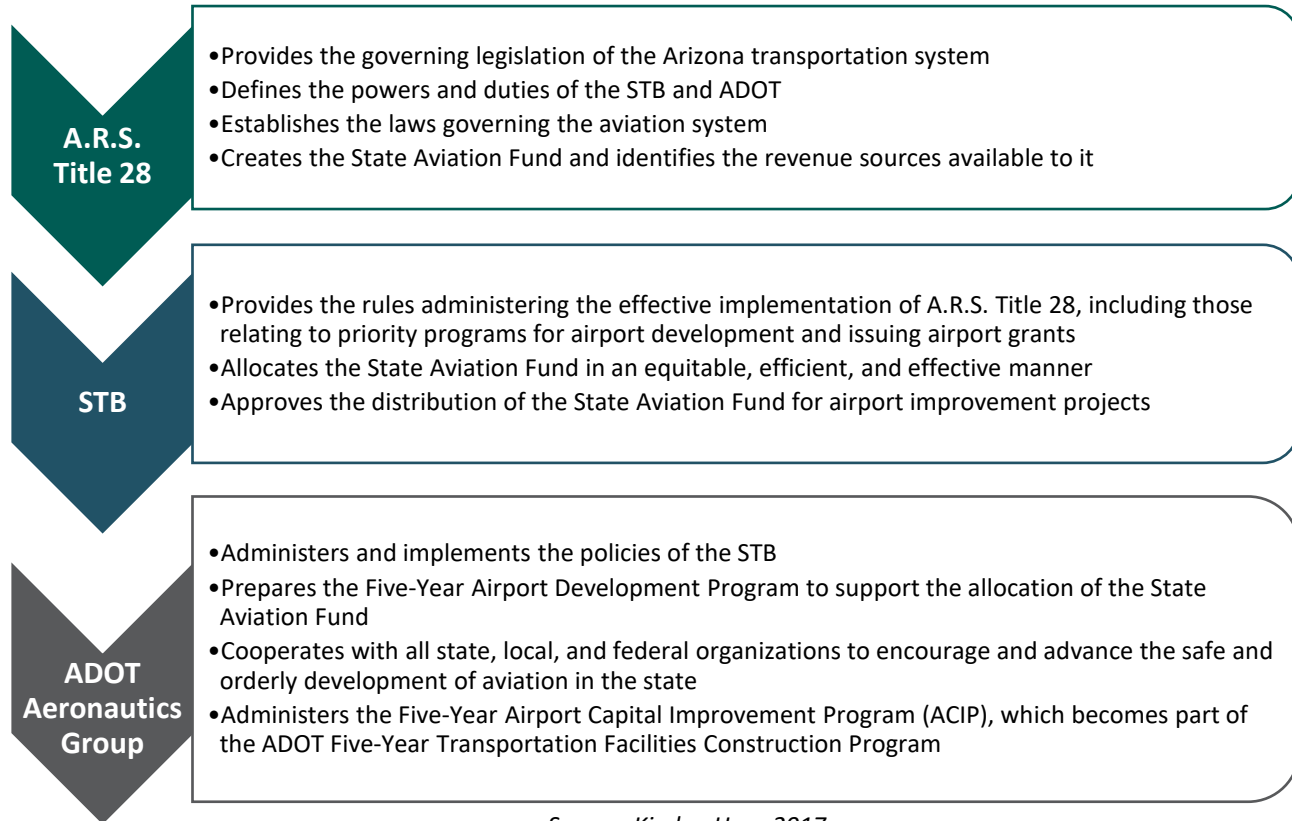
In the U.S., governance occurs through the passage of laws by the legislative branch and the subsequent implementation of those laws by state agencies within the executive branch. Arizona’s laws as established by the Arizona Legislature are codified in the Arizona Revised Statutes (A.R.S.). At the agency level, the State Transportation Board (STB) and ADOT are responsible implementing all transportation-related laws through a series of rules and guidelines developed in accordance with the A.R.S.

Based on this structure, a comprehensive review of the policies governing the state aviation system necessitates an evaluation of the following three components of transportation policy:

1. A.R.S. Title 28 — Transportation
2. STB Aviation Policies
3. ADOT Five-Year Development Program¹

It is important to remember that these three policy components are interrelated, with the A.R.S. establishing the baseline laws governing the system and STB Policies and Five-Year Development Guidelines providing for their administration and execution in the state. **Figure 1** provides a general overview of the roles and relationship between A.R.S. Title 28, the STB, and the ADOT Aeronautics Group. Additional details about each of the topics presented in the figure are presented throughout the chapter.

¹ The administrative policies and guidelines associated with ADOT’s Five-Year Development Program are outlined in the Airport Development Guidelines (2016). As described in further detail in this chapter, the Five-Year Development Program specifically refers to the five programs developed for the allocation of the State Aviation Fund. The Airport Development Guidelines is ADOT’s broader administrative guidebook for airports. Thus, while the Five-Year Development Program and Airport Development Guidelines are inextricably related, they are not interchangeable.



Source: Kimley-Horn 2017

Figure 1. Key Purposes and Overview of A.R.S. Title 28 — Transportation, the STB, and the ADOT Aeronautics Group

Arizona Revised Statutes Title 28 — Transportation

The A.R.S. are codified into a series of 49 titles, each of which addresses a specific area of governance.² Title 28 — Transportation governs Arizona's transportation systems and codifies all laws relating to motor vehicles, roadways, rail, public transit, aeronautics, and other transportation modes. The statutes under Title 28 establish both the STB and ADOT and provide the set of mandates, powers, and duties for each entity to govern transportation in Arizona.

Aircrafts and airports are specifically addressed in A.R.S. Title 28, Chapter 25, Aviation. As presented in **Table 1**, Chapter 25 addresses issues ranging from the organization and powers of the ADOT Aeronautics Group to aircraft operation, registration and taxation, and dealers; airports; airport zoning and regulation; and joint powers airport authorities.³

² Two titles have since been repealed, so the A.R.S. addresses 47 topics.

³ The A.R.S. refers to the ADOT Aeronautics Division. However, the division has since been re-organized under the ADOT Multimodal Planning Division to become the ADOT Aeronautics Group.

Table 1. Articles of A.R.S. Title 28, Chapter 25

Article	Title
Article 1. General Provisions	
28-8201	Definitions
28-8202	State aviation fund
28-8204	State owned airports; fees
28-8205	Construction of new airports; definitions
28-8206	Sovereignty
28-8207	Ownership
28-8208	Crimes, torts and other wrongs; governing law
28-8209	Legal relationships while in flight
28-8210	Civil air patrol; federal monies
Article 2. Aeronautics Division	
28-8241	Aeronautics division; assistant director
28-8242	Powers and duties
28-8243	Abandoned aircraft; definition
28-8244	Hearing; appeal
Article 3. Aircraft Operation	
28-8271	Federal license; violation
28-8272	Federal regulation; licensing and registration; violation
28-8273	Damage responsibility
28-8274	Aircraft collisions; liability
28-8275	Insurance coverage disclosure; civil penalty
28-8276	Violations; classification
28-8277	Low altitude flying prohibited
28-8278	Landing prohibition; liability
28-8279	Trick or acrobatic flying; low level flying; dropping objects; classification
28-8280	Careless or reckless aircraft operation; violation; classification; definitions
28-8281	Killing birds or animals; classification
28-8282	Prohibited operation; under the influence; incapacitation
28-8283	Implied consent; immunity
28-8284	Violation; classification
28-8285	Alcohol abuse screening session
28-8286	Alternative sentencing
28-8287	Second offense
28-8288	Third or subsequent offense
28-8289	Political subdivision; immunity
28-8290	Employment permitted
28-8291	Prior convictions allowed
28-8292	Waiver of fine, surcharge or assessment
Article 4. Aircraft Registration and Taxation	
28-8321	Definition of resident
28-8322	Registration; exceptions
28-8323	Government and dealer aircraft registration; fees
28-8324	Registration; license tax; proration; fee
28-8325	Registration fee; certificate; decal; duplicate
28-8326	Aircraft dealers; registration application; penalty
28-8327	Exemption claim

Article	Title
28-8328	Failure to register; assessment procedure
28-8329	Late registration; penalty; abatement
28-8330	Lien
28-8331	Seized aircraft sale
28-8332	Registration; transfer or assignment
28-8334	Aircraft loss or destruction
28-8335	License tax; tax rate
28-8336	Nonresident; license tax rate
28-8337	Stored or repaired aircraft; license tax rate
28-8338	Salvage aircraft; license tax rate; definition
28-8339	Special aircraft; license tax rate; definitions
28-8340	Manufacturer's aircraft; definition
28-8341	Maintenance aircraft; license tax rate; definition
28-8342	Fair market value determination
28-8343	Aircraft total loss; violation; classification
28-8344	Aviation fuel tax; rate; definition
28-8345	Registration fees; penalties; taxes; distribution
28-8346	Filing by mail; date of filing
28-8347	Civil penalties
Article 5. Aircraft Dealers	
28-8381	Definition of aircraft dealer
28-8382	License requirement; application; renewal; license tax; liability
28-8383	Aircraft dealer duties
28-8384	Bond or cash deposit
28-8385	Records
28-8386	Violation; classification
Article 6. Airports in General	
28-8411	Authority of cities, towns and counties; limitation
28-8412	Airports; public purpose
28-8413	Acceptance by state, cities, towns or counties of federal or other aid
28-8414	City and town airport disposal
28-8415	Real property interests; airport purposes
28-8416	Private property acquisition; airport purposes
28-8417	Payment for real property; bonds
28-8418	Airport construction and operation; charge
28-8419	Airport rules, fees and charges; limitation
28-8420	Agreements; joint airport operations
28-8421	Joint exercise of powers
28-8422	Adjoining state monies for airports
28-8423	Airport land lease; nonprofit corporation
28-8424	Nonprofit corporation lessees; status; authority; exemptions
28-8425	Lease authority; airport or air terminal purposes
28-8426	Airport police; powers; qualifications
28-8427	Police aides
28-8428	Liability; airport police and aides
Article 7. Airport Zoning and Regulation	
28-8461	Definitions
28-8462	Airport hazard; public nuisance; prevention and elimination

Article	Title
28-8463	Acquisition of facilities or nonconforming property; exception
28-8464	Political subdivisions; airport zoning regulations
28-8465	Joint airport zoning board
28-8466	Zoning regulations; relationships
28-8467	Airport zoning regulations; procedure; airport zoning commission
28-8468	Airport zoning regulations; criteria; limitations
28-8469	Airport zoning regulations; administrative agency; duties
28-8470	Permit
28-8471	Variance
28-8472	Permit; variance; condition; hazard indicators
28-8473	Airport zoning regulations; board of adjustment; powers; composition; proceedings
28-8474	Board of adjustment; appeals
28-8475	Appeals; superior court
28-8476	Violation; classification
28-8477	Remedies
28-8478	Resolutions; ordinances; vehicle operations in airports
28-8479	Regulation; limitation
28-8480	Military airport continuation; land acquisition
28-8481	Planning and zoning; military airport and ancillary military facility's operation compatibility; compliance review; penalty; definitions
28-8482	Incorporation of sound attenuation standards in building codes
28-8483	Registry of military airport flight operations; public inspection
28-8484	Military airport disclosure; residential property
28-8485	Airport influence areas; notice
28-8486	Public airport disclosure; definitions
Article 8. Joint Powers Airport Authority	
28-8521	Joint powers airport authority; agreement; board of directors
28-8522	Joint powers airport authority classification
28-8523	Annual operating budget
28-8524	Allocation of monies; sources; public hearing; reuse, development and capital improvement plans
28-8525	Joint powers airport authority; withdrawal
28-8526	Joint powers airport authority; admission
28-8527	Joint powers airport authority; powers
28-8529	Financing authority
28-8530	Revenue bonds; fees and charges
28-8531	Refunding bonds
28-8532	Bond terms
28-8533	Bond validity
28-8534	Bonds; legal investments
28-8535	Federal income tax considerations
28-8536	Bond proceeds; application

Source: Arizona Revised Statutes 2017

Specific Policy Implications

As shown in **Table 1**, many of the articles of A.R.S. Title 28, Chapter 25 do not impact the operations or activity of the ADOT Aeronautics Group or airports specifically, but instead focus on general provisions, aircraft operations, and aircraft dealers. The SASP Update primarily addresses the requirements of Article 1. General Provisions and Article 2. Aeronautics Division, although the analyses and recommendations developed during this process may have implications for other provisions, as well. Several key statutes with the greatest ability to impact Arizona's aviation system are highlighted here.

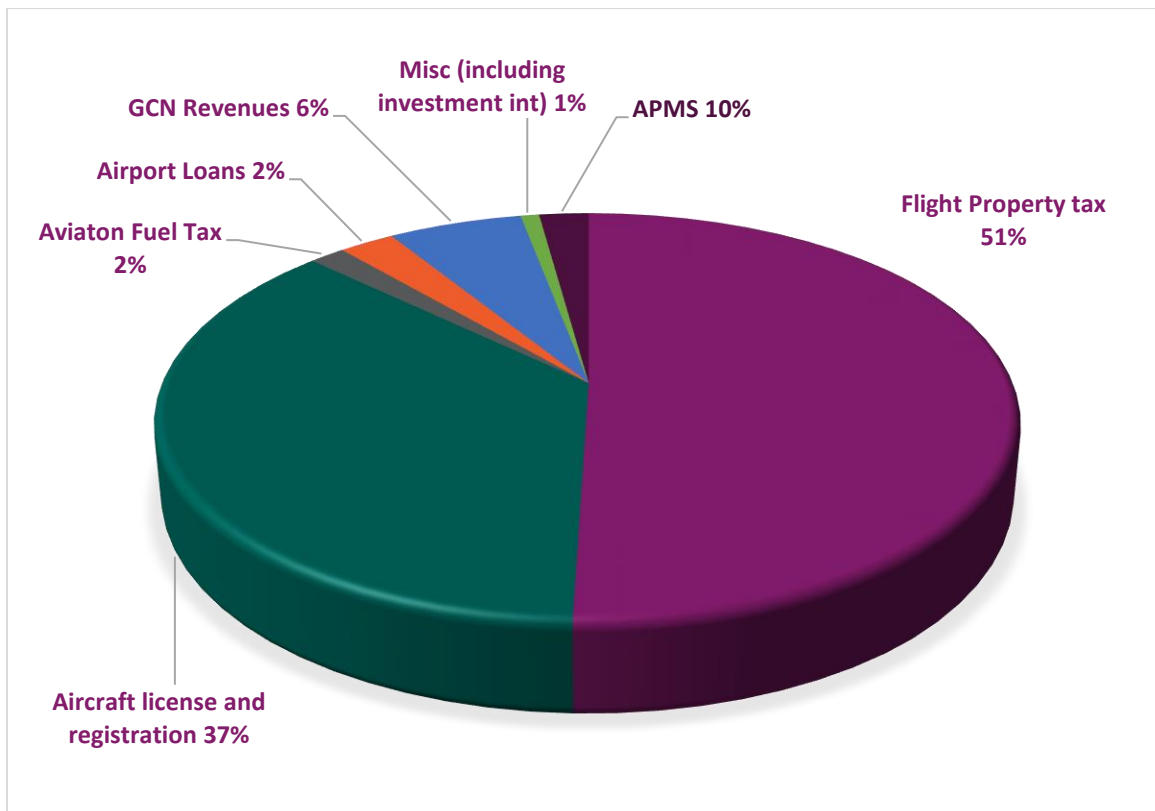
State Aviation Fund

A.R.S. 28-8202 establishes the State Aviation Fund for the planning, design, development, acquisition of land, construction, and improvement of publicly owned and operated airport facilities in Arizona. These funds are derived from:

1. **Flight property tax.** Tax on the full cash value of flight property operated by airline companies in Arizona (A.R.S. 42-14255).
2. **Aircraft license tax and registration fees.** Tax levied on all aircraft customarily maintained and registered in the State of Arizona except regularly scheduled aircraft operated by an airline company for hire or other types of aircraft specifically excluded. The tax is levied at a rate of 0.5 percent of the average fair market value of the particular make, model, and year of aircraft. The minimum tax is \$20 dollars per year (A.R.S. 28-8335).
3. **Airport loan payments.** Airport loan payments associated with the Airport Loan Program (additional details provided in the Five-Year Development Program Guidelines section below).
4. **Investment interest.** Monies earned through the investment of the State Aviation Fund as provided for in A.R.S. 35-313.
5. **Grand Canyon National Park Airport (GCN) revenues.** GCN is owned by ADOT and revenues are deposited in the State Aviation Fund (A.R.S. 8204). Revenues from GCN may include but are not limited to:
 - Landing and takeoff fees for commercial aircraft
 - Aircraft tiedown fees
 - Terminal and land space rental fees
 - Fuel flowage fees
 - Commercial-use ramp fees
 - Security and commercial ground transportation fees

6. **Aviation fuel tax.** Tax is levied on both Jet A fuel used by jet aircraft and AvGas (100LL) used in piston engines. The jet fuel excise and jet fuel use taxes are levied at a rate of \$0.0350 per gallon on the first 10 million gallons of fuel (A.R.S. 42-5352). All jet fuel purchased in excess of 10 million is exempt from further taxation.⁴ AvGas is subject to a state excise tax of \$0.05 per gallon (A.R.S. 28-8344).
7. **Sale of seized or abandoned aircraft.** Pursuant to A.R.S. 28-8331.

Figure 2 presents the average annual percent contribution of each of these revenue sources as presented in ADOT's *Airport Development Guidelines* (2016), ADOT's manual outlining the policies that govern the administration of the Five-Year Development Program.⁵ Please note that these percentages are only illustrative, as revenue sources can significantly vary by year depending on external conditions outside of the state's control.



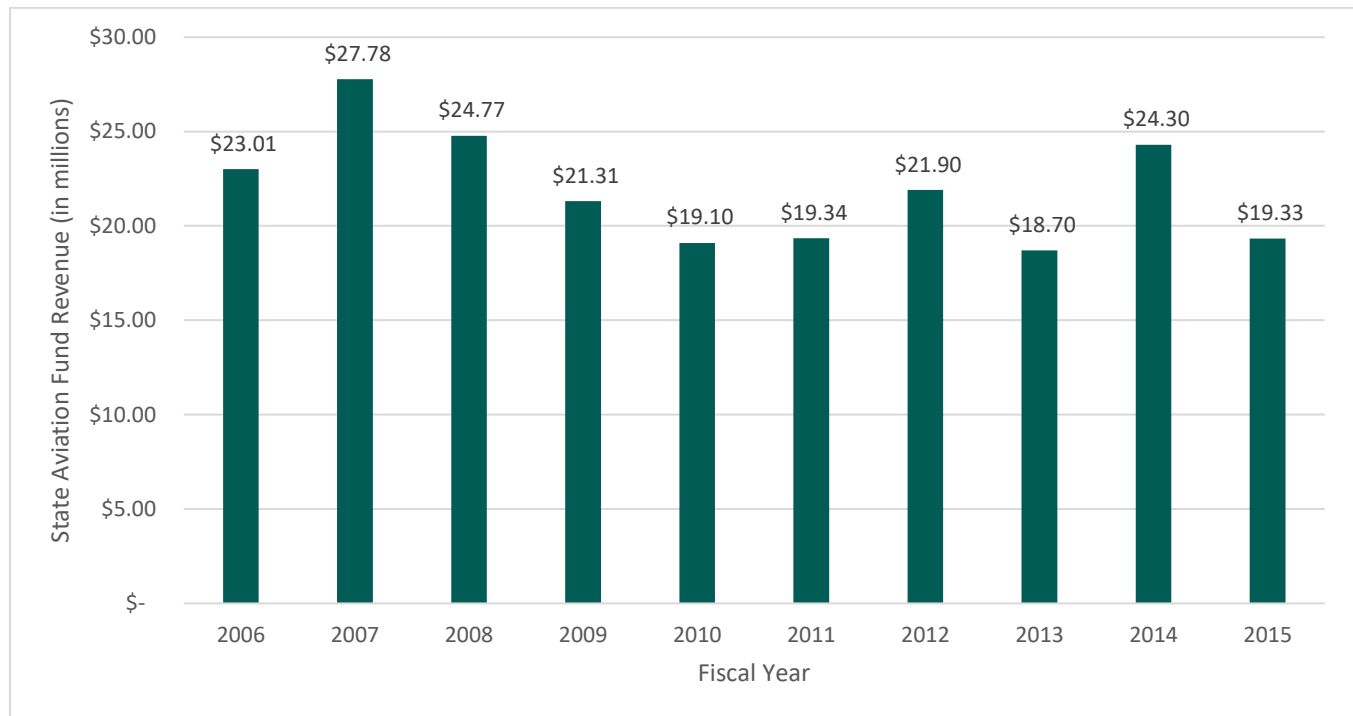
Source: ADOT 2017

Figure 2. State Aviation Fund Revenue Sources

⁴ According to A.R.S. 42-6014 (effective August 9, 2017), jet fuel tax is a matter of state concern. Thus, all Arizona cities and counties are prohibited from imposing local taxes on any fuel sale or purchase in excess of 10 million gallons. A.R.S. 42-6014 further requires that all revenues generated by a public-use airport be segregated into separate accounts for the exclusive expenditure for the capital or operating costs of the airport, the airport system, or other local airport facilities owned or operated by the municipality and directly or substantially related to the air transportation of people or properties. These revenue sources may include fuel flowage, aircraft tie-downs, hangar space, and terminal and land use rental fees, among others.

⁵ The Airport Development Guidelines (2016) do not provide a percent contribution for the sale of seized or abandoned aircraft. It is likely that these monies provide a relatively insignificant portion of revenue to the State Aviation Fund.

Figure 3 depicts revenue into the State Aviation Fund from 2006 to 2015. During this time period, revenue reached its peak in 2007 before declining in the wake of the economic downturn. Revenue began to recover by 2012, but growth was not steady through the study period. In fiscal year 2015, the State Aviation Fund received slightly over \$20 million in revenue from various sources. In all years except 2013, flight property taxes provided the largest contribution to the fund (\$11.5 million average annual contribution), followed by aircraft registration taxes (\$7.4 average annual contribution). In 2013, aircraft registration taxes contributed approximately \$125,000 more than aircraft registration taxes to the State Aviation Fund.



Source: ADOT 2018

Figure 3. Total Revenue into the State Aviation Fund (Fiscal Years 2006 – 2015)

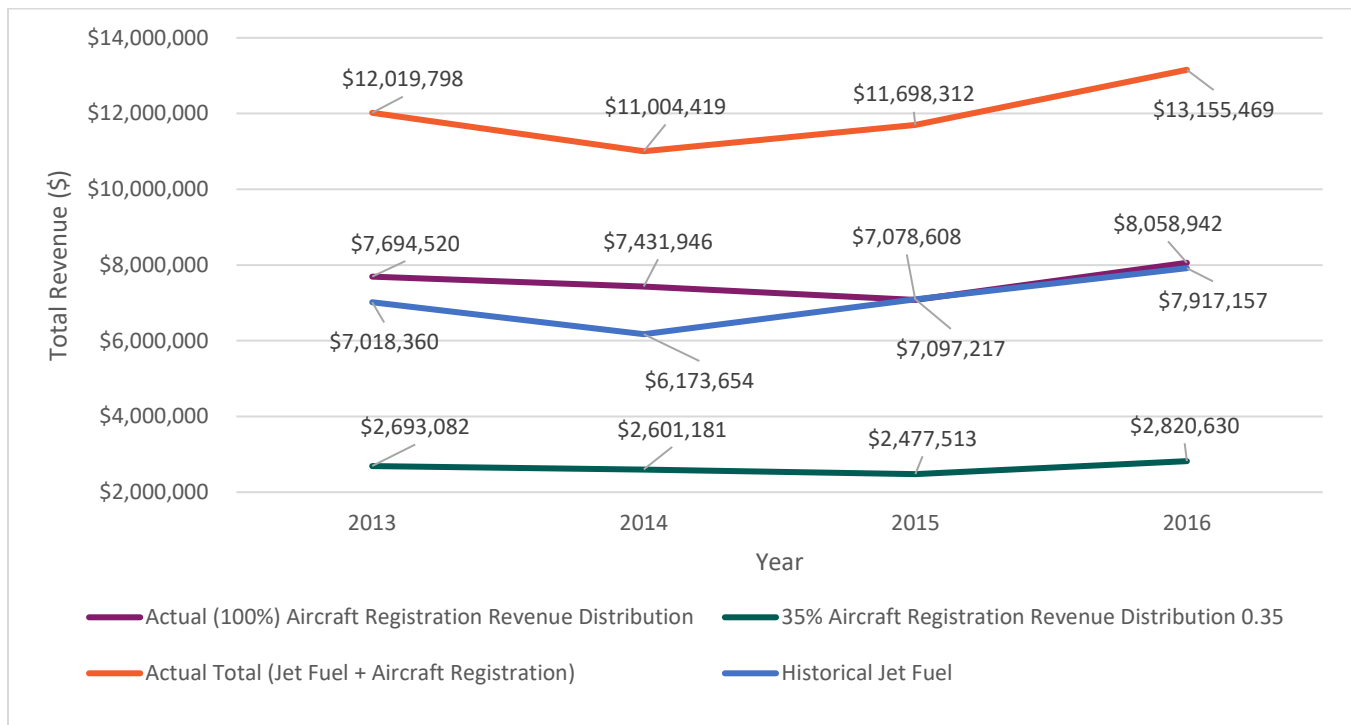
While **Figure 2** presents the historic composition of the State Aviation Fund revenue sources, recent changes in state statute will likely significantly alter the percent contributions in future years. Senate Bill 1531 (S.B. 1531) effective May 12, 2017, changed the percent of aviation fuel tax and aircraft license tax revenues distributed between the State General Fund and the State Aviation Fund. S.B. 1531 (Section 2, Subsection A) establishes the distribution of the aircraft license tax revenues as follows:

1. 50 percent in the State General Fund
2. 35 percent in the State Aviation Fund for use in the construction, development, and improvement of airports
3. 9.5 percent to counties in the proportion that the population of each county bears to the total population of Arizona

4. 5.5 percent to incorporated cities and towns in the proportion that the population of each county bears to the total population of the state (monies distributed to incorporated cities and towns may be used for any purpose permitted by law)

S.B. 1531 also amended the A.R.S. to distribute one hundred percent of the jet fuel excise and use taxes into the State Aviation Fund (S.B. 1531 Section 5). The Final Revised Fact Sheet for S.B. 1531 prepared by Senate Research staff reported that the distribution changes affecting jet fuel and aircraft license tax revenues will be revenue neutral to the State Aviation Fund (2017), as any decreases in aircraft license tax revenues will be offset by a concurrent increase in jet fuel tax revenues.

However, ADOT's internal analysis projects that the changes will reduce future revenues into the State Aviation Fund. To understand how these changes may impact revenue in the future, ADOT analyzed how S.B. 1531 would have affected their 2013 to 2016 revenue streams. The results of this analysis are presented in **Figure 4**. The analysis assessed the distribution of aircraft registration and jet fuel taxes into the State Aviation Fund under two scenarios. The first scenario reviewed the actual distribution of aircraft registration tax revenue into the fund. The second scenario assessed the 35 percent distribution of aircraft registration tax revenue into the State Aviation Fund as modified by S.B. 1531. The combined totals of aviation jet fuel and aircraft registration tax revenues for both scenarios were also assessed. According to ADOT's internal analysis, S.B. 1531 would have resulted in an average annual net loss of \$514,000 into the State Aviation Fund during the 2013 to 2016 study period.



Source: ADOT 2017

Figure 4. Impacts of S.B. 1531 on Aircraft Registration and Jet Fuel Tax Revenues into the State Aviation Fund

The latest change to S.B. 1531 will compound ongoing budget shortfalls experienced by the ADOT Aeronautics Group in recent years. The State Aviation Fund was established in 1979 to specifically meet the state’s aviation funding needs. However, the State Legislature has transferred money from the fund for non-aviation-related purposes since 1997. These transfers have cumulatively totaled over \$114 million as of January 2017 (Arizona Airports Association 2017).

Governing Agencies

Arizona statute establishes both ADOT and the STB, which have distinct but related powers and duties regarding the state transportation system. In general, the STB is responsible for establishing the policies that govern transportation and approving administrative and funding decisions. ADOT is responsible for implementing or administering those policies.⁶

Table 2 provides several examples comparing the roles of the STB and ADOT in accordance with state statute. Please note that this table does not provide a comprehensive list of the powers and duties vested to either entity. Instead, the information is intended to provide a representative illustration of the relationship between the STB and ADOT on similar policy topics.

Table 2. Comparison of Powers and Duties Granted by A.R.S. Title 28 — Transportation to the STB and ADOT

Policy Topic	STB Powers and Duties		ADOT Powers and Duties	
Purpose	28-304 (A)	The board shall develop and adopt a statewide transportation policy statement.	28-331 (A)	The department shall provide for an integrated and balanced state transportation system.
Transportation Planning	28-304 (A)	The board shall adopt a long-range statewide transportation plan.	28-332 (B)	The department shall conduct multimodal state transportation planning, cooperate and coordinate transportation planning with local governments, and establish an annually updated priority program of capital improvements for all transportation modes.
		The board shall adopt uniform transportation planning practices and performance based planning processes for use by the department.		
		The board shall adopt transportation system performance measures and factors and data collection standards to be used by the department.		
	28-304 (D)	The board shall determine priority program planning with respect to transportation facilities using the performance based methods developed pursuant to article 7 of this chapter.		
Facility Construction	28-304 (C)	The board shall establish policies to guide the development or modification of the five-year transportation facilities construction program that are consistent with the principles of performance based planning developed pursuant to article 7 of this chapter.	28-332 (B)	The department shall design and construct transportation facilities in accordance with a priority plan and maintain and operate state highways, state owned airports and state public transportation systems.

⁶ Note that A.R.S. Title 28 establishes the STB “in the department of transportation” (A.R.S. 28-302). Thus, the STB is not a separate regulatory entity; however, its role in state transportation policy is distinct from the agency as a whole. As a result, it is treated as quasi-independent entity for the purpose of clarity.

Policy Topic		STB Powers and Duties	ADOT Powers and Duties	
		The board shall award all construction contracts for transportation facilities. The board shall monitor the status of these construction projects.		
State Aviation Fund	28-8202 (D)	The board shall distribute monies appropriated to the department from the state aviation fund for planning, design, development, acquisition of interests in land, construction and improvement of publicly owned and operated airport facilities.	28-8202 (C)	The department shall administer monies that are appropriated by the legislature from the state aviation fund.
Construction of New Airports	28-8205 (A)	A new airport shall not be constructed within the boundaries of an urbanized area or within twenty-four statute miles of the exterior boundary of an urbanized area without approval of the board.	28-8242 (D)	The director shall, in conjunction with local authorities, plan, build and develop airports, airport terminals and other related navigational facilities.

Source: Arizona Revised Statutes 2017

Construction of New Airports

A.R.S. 28-8205 mandates “a new airport shall not be constructed within the boundaries of an urbanized area or within 24 statute miles of the exterior boundary of an urbanized area without approval of the STB.” While this statute impacts the location of future airport development, it does not provide the STB with the authority to regulate the construction of an airport in more rural areas of the state. Furthermore, there are no policy mechanisms to identify the construction of new airports within the 24-mile threshold.

If a new grant-eligible airport (i.e., publicly owned and operated) is constructed outside of the 24-mile threshold, the ADOT Aeronautics Group would be obligated to consider the airport for grant funding—placing new pressures on already limited resources. The construction of any new airport regardless of ownership or usage rights may also impact air traffic, posing safety or congestion concerns for nearby facilities.

Acceptance of Federal Aid

A.R.S. 28-8413 allows the state or a county, city or town to accept or receive public or private money for the acquisition, construction, enlargement, improvement, maintenance, equipment, or operation of airports, other air navigation facilities, and sites for airports and other navigational facilities. The ADOT Aeronautics Group can also be designated as the entity’s agent in such a transaction. This statute allows ADOT to consider participating in the Federal Aviation Administration’s (FAA) State Block Grant Program, which would give the agency the authority to administer Airport Improvement Program (AIP) grants at non-primary commercial service, reliever, and general aviation (GA) airports. ADOT can also consider becoming a channeling state. Under a channeling agreement, the ADOT Aeronautics Group would serve as the liaison between airport sponsors and the FAA for AIP funding requests, receipt, and distribution. The state may also provide technical oversight and review. Channeling agreements are based on state enabling legislation (in this case, A.R.S. 28-8413) and do not require approval from the FAA Airport Development Office (FAA 2014, 2-16).

Airport Disclosure Notices

According to A.R.S. 28-8485, the state or a governing body of a political subdivision that has established or operates an airport may designate all property within the vicinity of an airport as an airport influence area after a notice and hearing. The area must be exposed to aircraft noise and overflight with a day-night average sound level of 65 decibels or higher or be within such a geographic distance from an existing runway that it is exposed to aircraft noise and overflights. Once the area has been identified, the political entity must file a record of the airport influence area with the office of the county recorder. The record must be sufficient to notify existing or potential property owners that the area is subject to aircraft noise and overflights.

As a separate provision, A.R.S. 28-8486 mandates that all public airports owned by a political subdivision of the state prepare an airport disclosure notice sufficient to determine if a property is located in the vicinity of the airport. This territory is defined as an area that is within the traffic pattern airspace as defined by the FAA and property that experiences a day-night average sound level as follows:

1. In counties with a population of more than 500,000 persons, 60 decibels or higher at airports where such an average sound level has been identified in either the airport master plan for the 20-year planning period or in a noise study prepared in accordance with airport noise compatibility planning, 14 Code of Federal Regulations, Part 150.
2. In counties with a population of 500,000 persons or less, 65 decibels or higher at airports where such an average sound level has been identified in the airport master plan for the 20-year planning period.

Airport disclosure maps shall be submitted to the office of the country recorder and transmitted to the Arizona Department of Real Estate (ADRE). However, a relatively small percentage of publicly owned, public-use airports have maps on file with the ADRE as required by state statute. A.R.S. 28-8484 provides a similar notification process for properties within the vicinity of a military airports. However, while military airport disclosure notices are noncompulsory, they are widely implemented.

A.R.S. 28-8485 and 28-8486 are designed to support airport zoning and regulation, provide an additional level of safety for people and property on the ground, and a means to educate existing and potential property owners about possible noise and overflight issues associated with airports. As the state population increases, new development is continuously encroaching on airports, increasing safety concerns and noise complaints within surrounding communities. Encroachment on airports may also limits future expansion potential.

Tribal Airports

A.R.S. 28-8202 establishes the eligibility criteria for airports to receive state funding. Prior to 2013, state statute limited funding eligibility to publicly owned and operated airport facilities in counties and incorporated cities and towns. The statute further defined publicly owned and operated facilities as follows:

An airport and appurtenant facilities in which one or more agencies, departments, or instrumentalities of this state, or a city, town, or county of this state, holds an interest in the land on which the airport is located that is clear of any encumbrance that might preclude or interfere with possession, use, or control of the land for public airport purposes for a minimum period of twenty years. (A.R.S. 25-8202)

Based on this definition, Tribal airports were excluded from receiving state funding. However, this law was revised by S.B. 1317 effective June 14, 2013 to include Tribal airports. As a result, 14 Tribal airports became eligible for state funding and have thus been included in the 2018 SASP Update.

State Transportation Board Policies

The STB is a regulatory authority composed of one or two representatives from each of the six transportation districts in Arizona (A.R.S. 28-301). Members of the board are appointed by the governor and all members must have been a resident and taxpayer of the state and county from which the member is chosen for at least five years immediately before the person's appointment (A.R.S. 28-302). The powers and duties of the STB are outlined in A.R.S. Title 28, Chapter 2, Article 1; with respect to aeronautics, the board's duties are further outlined in A.R.S. Title 28, Chapter 25, Aeronautics.

The STB has broad authority to plan and develop Arizona's transportation systems with jurisdiction over Arizona's highways, airports, bicycle and pedestrian facilities, and other modal infrastructure. The STB's *State Transportation Board Policies* were most recently approved in December 2015 with no changes since the last revision date in November 2013 (STB 2015, i). In regard to aeronautics, it is the STB's policy to "provide a safe and secure airport system that accommodates demand, supports economic and transportation needs, and maximizes funding resources." The STB developed a set of four specific goals to achieve that end (STB 2015, 25):

1. Provide for a safe airport system, as measured by compliance with applicable safety standards, which supports health, welfare, and safety related services and activities.
2. 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.
3. 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.
4. Promote a system of airports that is sensitive to and considerate of the environment. The system should support aviation outreach opportunities.

The STB has adopted seven policies applicable to the state aviation system as summarized in the following sections.⁷ These policies are updated regularly to reflect aviation needs, statutory requirements, and other conditions. As a result, the STB Aviation Policies should be reviewed and updated as deemed appropriate based on the findings and recommendations of the 2018 SASP Update.

⁷ More information about each provision is provided in ADOT's Airport Development Guidelines and the STB's State Transportation Board Policies documents. The Arizona State Transportation Board Policies (revised December 2015) are available at aztransportationboard.gov/downloads/Board-Policy-Map.pdf. The Airport Development Guidelines (revised September 2016) are available at azdot.gov/planning/airportdevelopment/development-and-planning/Aeronautics-Documents. Both documents were accessed September 2017 for this writing.

SASP Policy

In accordance with A.R.S. 28-304 (Section A), it is the policy of the STB to “develop, adopt, and periodically update a long-range transportation plan in the form of a State Airports System Plan” (Ibid. 25). In addition to providing the framework for evaluating the system’s performance and supporting long-term transportation planning efforts, the SASP defines the airport roles used in the allocation of state aviation funds. In 2009, the STB adopted the 2008 SASP airport roles as official state policy:

1. **Commercial Aviation.** Publicly owned airports that enplane 2,500 or more passengers annually and receive scheduled passenger air service.
2. **Reliever.** FAA-designated airports that relieve congestion at a commercial service airport.
3. **GA-Community.** Airports that serve regional economies, connecting to state and national economies and serve all types of GA aircraft.
4. **GA-Rural.** Airports that serve a supplemental role in local economies, primarily serving smaller business, recreational, and personal flying.
5. **GA-Basic.** Airports that serve a limited role in the local economy, primarily serving recreational and personal flying.

Chapter 5: Airport Classification Analysis provides further details about the 2008 SASP roles and the revised airport classifications developed as part of the 2018 SASP Update.

Airport Development Program Policy

The STB is responsible for distributing state aviation funds for planning, design, development, acquisition of interests in land, construction, and improvement of publicly owned and operated airport facilities in counties, incorporated cities and towns, and Indian reservations (A.R.S. 28-8202).⁸ Funds must be distributed according to airport need as determined by the STB, with no more than 10 percent of the average annual revenue that the fund received for the past three years awarded to any one airport in any fiscal year (A.R.S. 28-8202 [D]). The STB has established five programs that together compose the Airport Development Program for the transparent and equitable distribution of funds listed in order of funding priority:

1. Federal/State Matching (FSL) Airport Development Grants Program
2. State/Local (SL) Matching Airport Development Grants Program
3. Airport Pavement Management System (APMS) Program
4. State System Planning Program
5. Airport Development Loan Program

The ADOT Aeronautics Group is responsible for administering the Airport Development Program in a manner that maximizes funding for all five programs and parallels the design and planning criteria established by the FAA for the development of airport facilities (ADOT 2016, 50). Additional information about ADOT’s funding guidelines and procedures is provided in the Five-Year Development Program Guidelines section starting on page 2-15.

⁸ S.B. 1317 effective June 14, 2013 amended A.R.S. 28-8282 to authorize ADOT to fund Tribal airports.

Resource Allocation Policy

The STB allocates the State Aviation Fund in an “equitable, efficient, and effective manner” by first distributing funds to those airports with the highest level of aviation activity while providing grant access to all eligible airports in Arizona. This policy is achieved through the use of the 2008 SASP airport roles in the funding allocation criteria developed by the ADOT Aeronautics Group.

Project Selection and Prioritization Criteria Policy

A.R.S. 28-304 (A) directs the STB to adopt performance-based planning processes including performance measures, factors, and data-collection standards. Founded in this legislative mandate, the STB requires the use of established, published, and consistently applied project eligibility criteria and priority rating systems in the development of ADOT’s Five-Year Transportation Facilities Construction Program.

Adequate Funding Policy

It is the policy of the STB to ensure adequate aviation funding by:

1. Taking full advantage of federal funding by ensuring the availability of sufficient state and matching funds
2. Pursuing new and existing funding sources
3. Working with the Arizona congressional delegation to increase the funding for Arizona in the federal aviation programs
4. Advocating federal and state legislation for aviation funding in the state

Regional and National Cooperative Planning and Best Practices Policy

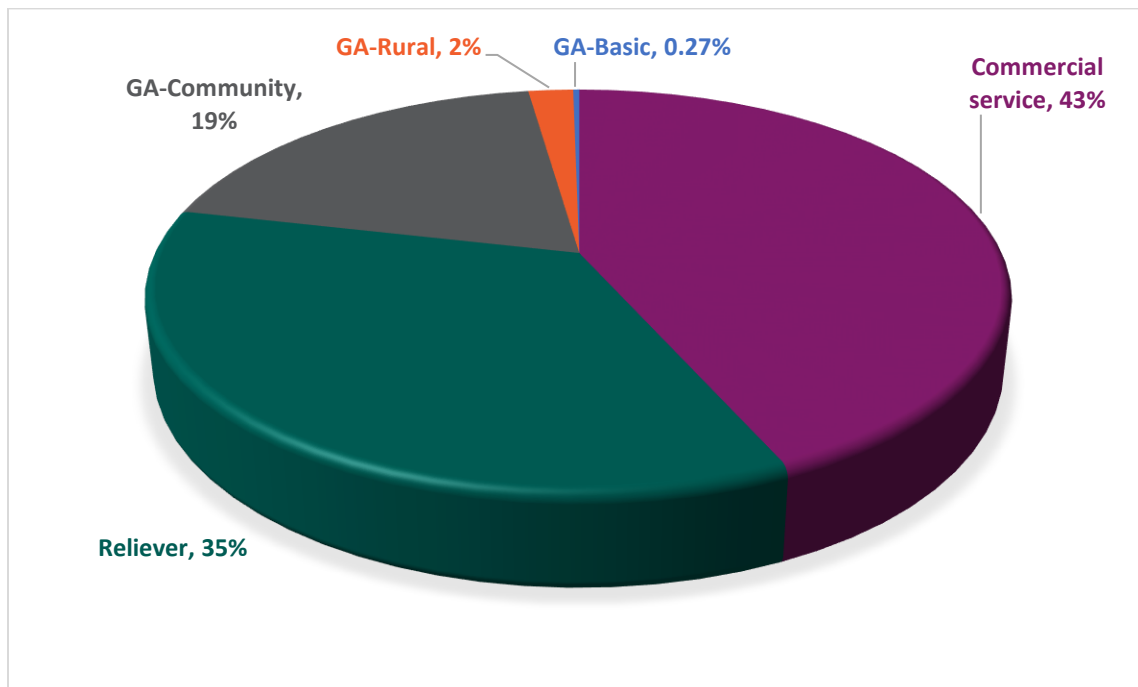
It is the policy of the STB to support and work collaboratively with state and federal aviation system meets current standards and future levels of demand. The STB also recognizes the importance of developing and implementing best practices within the industry to enhance Arizona’s aviation transportation system by improving its safety, efficiency, and effectiveness.

Five-Year Development Program

The ADOT Aeronautics Group is responsible for encouraging and advancing the safe and orderly development of aviation in Arizona in accordance with state statute and STB policies (A.R.S. 82-8242). The ADOT Aeronautics Group achieves this primary end through the administration of the State Aviation Fund (A.R.S. 82-8202) allocated through the Five-Year Airport Development Program. Please note that the *Airport Development Guidelines* (2016) provide the ADOT policies for the administration of the Five-Year Development Program.

Funding Allocations

In accordance with the STB's resource allocation policy of providing the greatest percentage of funds to the airports with the highest levels of activity, ADOT established the administrative guidelines for the allocation of funds based on the 2008 SASP airport roles as presented in **Figure 5** (ADOT Aeronautics Group 2016, 6). ADOT has the authority to adjust these allocations based on program initiatives, system needs, or the balance of the fund. Additionally, the STB may annually review and amend these distributions as necessary.



Source: ADOT 2016

Figure 5. State Funding Allocations by Airport Role (Existing)

Program Overviews

The Five-Year Airport Development Program comprises five programs guided by STB policy. Funds for each of the programs are distributed according a specific set of guidelines established by ADOT with the approval of the STB. **Table 3** provides of a summary of each program; additional details about each program follow.

Table 3. Summary of the Five-Year Airport Development Program

Program Component	Summary	Eligibility	Status
Federal/State/Local Airport Development Grants	Provides a one-half share of an airport sponsor's match of an FAA Airport Improvement Program (AIP) grant.	Recipient of an FAA AIP grant.	Funding allocations made during the Fiscal Year (FY) 2016/17 will be honored.
State/Local Airport Development Grants	Provides a 90 to 95 percent match for eligible projects. Projects are prioritized based on	Compliant with criteria provided in the Airport Development Guidelines	New grants on-hold through 2020. Funding allocations made during the FY 2016/17 will be honored.

Program Component	Summary	Eligibility	Status
	project category, type of project, and measure of aviation activity.	<ul style="list-style-type: none"> Publicly owned, public-use airports (including those airports owned by a Tribal entity) 	
Airport Pavement Management System	Provides maintenance improvements to extend the useful life of airfield pavement.	<ul style="list-style-type: none"> Project identified by ADOT based on a prioritized need Airport required to conduct a certified annual maintenance program post-construction 	New projects on-hold until FY 2019. Pavement inspection services will continue.
State System Planning and Services	Supports state and regional planning efforts to ensure safe and orderly airport development in Arizona.	Projects requested by ADOT Aeronautics Group and approved by the STB based on current and projected conditions in the state.	Awarded on an as-needed basis.
Airport Loan	Provide interest-bearing loans for airport development projects designed to generate direct revenue to the airport.	<ul style="list-style-type: none"> Airport identified in the ADOT SASP dated November 2009 Owned by the public agency making the loan application Open to the public 	Suspended indefinitely.

Source: ADOT 2016

FSL Airport Development Grants

To maximize and leverage the availability of federal assistance to Arizona's airports, ADOT strives to match one-half of all airport sponsors' local shares of FAA AIP grants. Airports must be included in the NPIAS to receive an AIP grant. All FSL Airport Development Grant projects are included in ADOT's Five-Year ACIP.

SL Airport Development Grants

The SL Airport Grants Development Program is designed to achieve the goals of the state aviation system by providing funds for projects of local, regional, or state significance, including those that may not be funded by the FAA due to eligibility or selection criteria. The program provides 90 percent of eligible project costs at Commercial Service, Reliever, GA-Community, GA-Rural Airports and 95 percent of eligible costs at GA-Basic airports.

Projects are selected for inclusion in the SL Airport Development Grants Program based on a priority rating system. This system provides the ADOT Aeronautics Group with an objective measure of various factors, including the importance of the proposed project to the airport, airport system, and considerations specified in A.R.S. 28-6951. This numerical rating system is designed to allocate funds to the highest-priority projects within the statewide aviation system by providing systematic information to guide the decision-making process.

The priority rating system utilizes six prioritized grant categories, including safety, security, capacity, planning, environmental, and sustainability, that serve as the framework for project evaluation. Each grant category includes 58 specific project types (known as project components) with an assigned score (known as a priority value). **Table 4** summarizes the grant categories listed in order of priority and provides sample project components and priority values within each category.

Table 4. Summary of Grant Categories and Example Project Components

Grant Category	Summary Description	Example Project Component (Priority Value)
Safety	Projects directly associated with the safe operations of aircraft at an airport. Typical projects are designed to meet the FAA's design standards for an airport's demand aircraft, deemed necessary by the FAA's Runway Safety Action Team, or identified by Airport Certification Inspections.	<ul style="list-style-type: none"> – Obstructions, light/mark/remove (255) – Land for protection (safety areas), acquire (245) – Runway, extend (238)
Security	Projects designed to advance the Transportation Security Administration's (TSA) security requirements for commercial service airports or guidelines for GA airports.	<ul style="list-style-type: none"> – Perimeter fencing – barbed wire, new install (235) – Wildlife deterrent fencing, new install (212) – Chain link security fencing, new install (170)
Capacity	Project that support an airport's ability to accommodate growth not specifically associated with safety.	<ul style="list-style-type: none"> – Acquire land for development (55) – Terminal, construct/expand (44)
Environmental	Documentation that support environmental compliance in accordance with the FAA's requirements for environmental services.	<ul style="list-style-type: none"> – Environmental studies (variable)
Planning	Planning projects specific to demonstrating airport need and defining near-future airport development improvements.	<ul style="list-style-type: none"> – Master plans (100) – Airport drainage plan (95)
Sustainability	Projects that indirectly support aviation-based activities but are not typically used to generate airport revenue.	<ul style="list-style-type: none"> – Main airport access/public circulation road, rehabilitate (60) – Land for development, acquire (55) – Terminal, construct/expand (44)

Sources: ADOT 2016, ADOT 2011

In addition to the project component score, airports receive an airport measure rating based on three common measures of aviation activity:

1. Registered based aircraft
2. Scheduled air carrier enplaned passengers
3. Sponsor-reported aircraft operations compared to the airport service volume

The overall priority of a project is the sum of the project component points plus airport measure points. Projects are selected for inclusion in the ACIP based on their priority ranking scores.

Airport Pavement Management System

The APMS Program provides assistance to airports conducting ongoing airfield pavement maintenance to meet federal grant assurance obligations and preserve past investments in airfield pavement. These projects are supported on the basis that preventative maintenance activities can cost-effectively extend pavement life and reduce long-term needs associated with major rehabilitations, strengthening, reconstruction, and new construction. The APMS Program identifies the pavement areas at Arizona's grant-eligible airports most in-need of maintenance repairs and provides turnkey design, construction, and close-out services for the implementation of those repairs. Airport sponsors receiving a pavement maintenance project through the APMS are responsible for 10 percent of construction costs.

The program is designed to comply with Public Law 103-305; FAA AC 150/5380-6, *Airport Pavement Maintenance*; and FAA AC 150/5380-7, *Airport Pavement Management*. As part of federal grant assurances, any pavement that has been constructed, reconstructed, or repaired with federal assistance is required to establish a pavement management program. The ADOT Aeronautics Group has established this same grant assurance for state money. Any airport that does not perform regular maintenance and inspection or maintain related documentation jeopardizes its eligibility to receive grant funding from both the FAA and ADOT (ADOT Aeronautics Group 2016). To assist airports in this process, ADOT maintains an APMS, which fulfills these federal and state grant obligations when coupled with monthly pavement evaluations and regular maintenance activities by airport sponsors.

The APMS uses the Army Corps of Engineers Micropaver program as the basis of generating the Five-Year Airport Pavement Preservation Program (APPP). The APMS is based on visual pavement inspections conducted on a three-year cycle which assign Pavement Condition Index (PCI) numbers to all pavement areas at Arizona's grant-eligible airports. The PCI is a calculated value based on distress type, severity, and quantity. A unique PCI is assigned to each pavement area, which is then averaged to determine the overall PCI for each pavement branch.

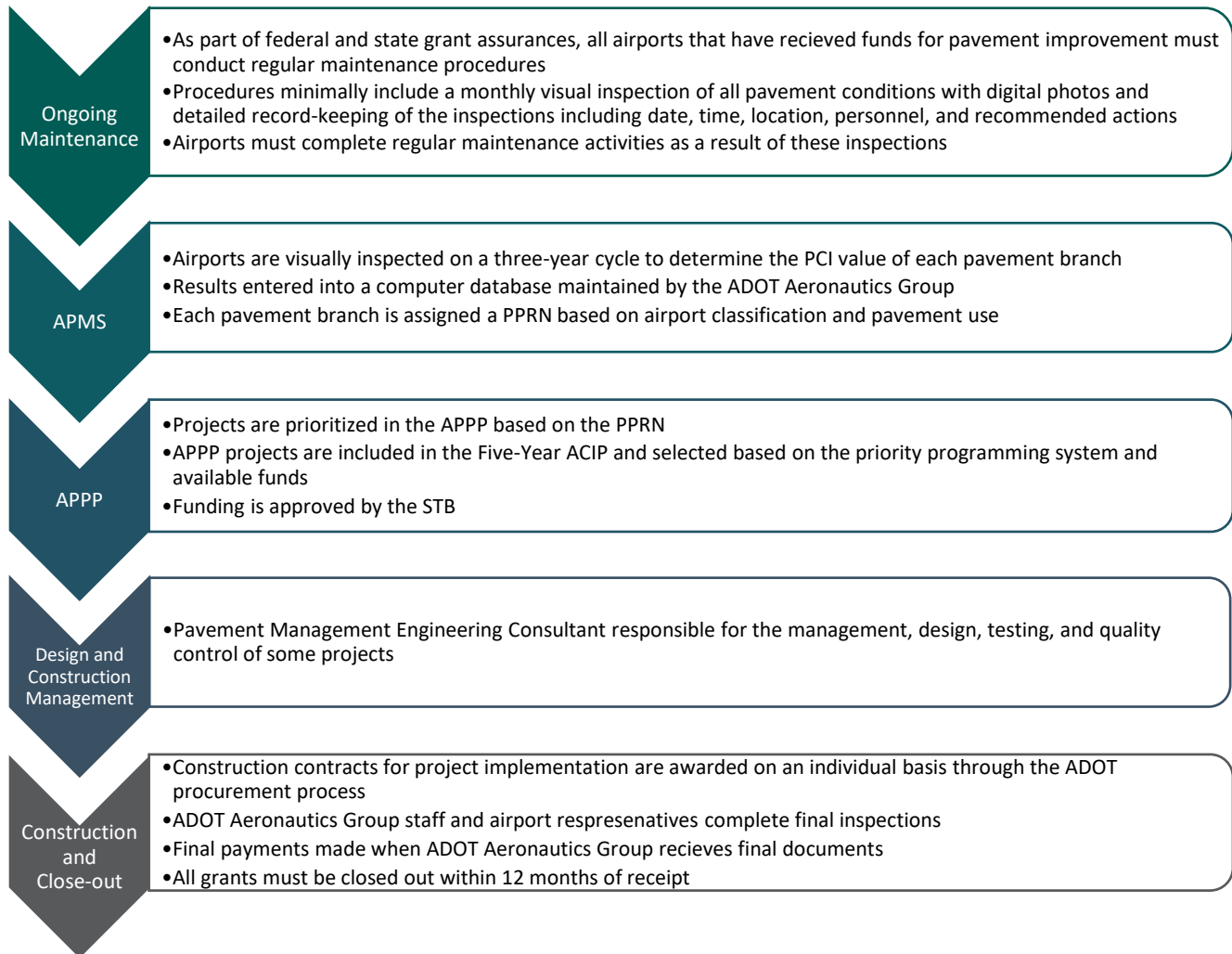
Based on this PCI, pavement use (i.e., main runway, taxiway, secondary runway, apron/helipad, T-hangar), and airport classification, pavement areas are assigned a Pavement Priority Rating Number (PPRN). Pavement sections are prioritized for improvement through the APPP based on their PPRNs. Five treatment options are considered in the APPP as follows:

1. Crack seal and slurry seal
2. Crack seal and rubberized asphalt emulsion seal coat
3. Thin rubberized asphalt overlay
4. Mill and replace porous friction course
5. Portland Concrete Cement joint resealing and spall repairs.

Paint remarking is also considered for all pavement sections with unsatisfactory markings. Asphalt surface pavements with a PCI value below 55 and Portland Concrete Cement (PCC) pavement below 65 require major rehabilitations and are thus ineligible for the APPP. APPP projects are included in the Five-Year ACIP and submitted to the STB for funding approval.

Once a project has been selected for funding, ADOT provides the prescribed pavement treatment through the statewide Pavement Management Engineering Consultant. The consultant is responsible for the management, design, testing, and quality control of every project throughout the state. Some construction contracts are awarded for each individual airport through a public procurement process administered by ADOT. Grants issued through the APMS Program are limited to 12 months, and only one pavement maintenance projects per airport is issued each year.

Figure 6 outlines the APMS Program process.



Source: ADOT 2016

Figure 6. APMS Program Process

State System Planning and Services

State Aviation Funds may be used to inventory, monitor, and assess the state aviation system, as well as establish goals and priorities of the state system. These funds are typically used by the ADOT Aeronautics Group to conduct statewide aviation planning, research studies, or aviation support services.

Airport Loan

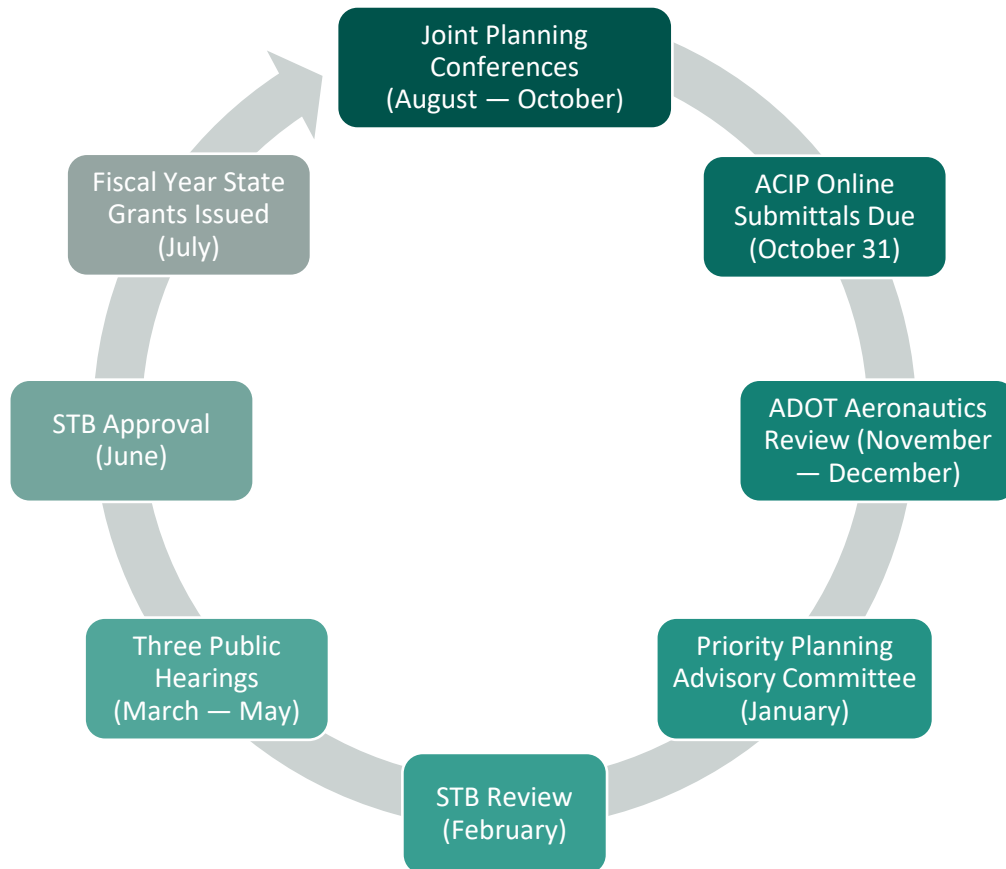
The Airport Loan Program is designed to maximize the use and efficiency of the State Aviation Fund and support the self-sufficiency of airports. The program provides financial assistance in the form of interest-bearing loans to public agencies that own and operate airports to expand and enhance aviation business opportunities on airport property. These types of projects are designed to generate direct revenue to airports and are typically not

eligible to receive funding through the other Five-Year Development Programs. The Airport Loan Program is currently suspended with no plans of resurrection in the foreseeable future.

Five-Year Airport Capital Improvement Program

Each year, the number of potential aviation projects in Arizona far exceed the monies available in the State Aviation Fund. Airport development projects requesting FSL and SL program grants are selected for funding through the ACIP, which is then incorporated into the ADOT Tentative Five-Year Transportation Facilities Construction Program. The ACIP ensures the effective use of state dollars for airport development and maximizes FAA funds for Arizona airports. The ACIP also fulfills a state requirement for the development of a Five-Year Transportation Facilities Construction Program (A.R.S. 28-3951).

ADOT prepares the ACIP on an annual basis following the general process outlined in **Figure 7**. It is important to note that the STB is responsible for reviewing and approving projects for funding in conjunction with STB Policies.



Source: ADOT 2008

Figure 7. ACIP Timeline

The ACIP is developed each year based upon the projects submitted by airport sponsors via the Aeronautics Group's ACIP website. Projects can be accepted into the ACIP database once the ADOT Aeronautics Group has conducted an initial review for eligibility and general conformity with ADOT criteria. Airport development projects requesting SL funding are ranked based on the priority rating system. Funding levels are applied to the prioritized SL projects to determine which projects can be included in the tentative ACIP. All FSL grant requests are included in this tentative document. The ADOT Aeronautics Group's and Highway Program's tentative ACIPs are then combined to form the Tentative Five-Year Transportation Facilities Construction Program.

COMPARISON WITH OTHER STATES

The powers and duties of the ADOT Aeronautics Group as assigned by A.R.S. Title 28 are designed to provide a safe and secure airport system that accommodates demand, supports economic and transportation needs, and maximizes funding resources in accordance with STB policy. To identify potential areas for improvement or alternative means to accomplish similar goals, it is helpful to review the roles of other state aviation agencies. These agencies can provide inspiration for developing more effective ways to serve Arizona's residents, visitors, and businesses or validation that the existing model is best meeting the needs of the state.

The National Association of State Aviation Officials (NASAO) represents the aeronautics staff at state transportation agencies in the 50 states, Guam, and Puerto Rico. This national organization periodically generates the *NASAO State Aviation Funding and Organizational Data Report* to highlight the various duties of state aeronautics agencies across the country. The most recent report was updated in 2015. **Table 5** compares the duties of the ADOT Aeronautics Group to those performed by other state aeronautics agencies in the U.S.

Table 5. Comparison of ADOT Aeronautics Group Division Duties and Programs with Other Western States

State Duty/Responsibility	AZ	CA	CO	KY	NC	NV	NM	UT	WA	WY
Aeronautical chart	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Air service assistance program							✓			
Aircraft registration	✓						✓	✓	✓	
Airfield maintenance project funding	✓	✓	✓	✓	✓		✓	✓	✓	✓
Airfield pavement management program	✓	✓	✓		✓	✓	✓	✓	✓	✓
Airport directory			✓	✓	✓	✓	✓	✓	✓	✓
Airport preservation program		✓	✓		✓			✓	✓	
Aviation education		✓	✓		✓		✓			
FAA channeling state				✓				✓		✓
FAA Block Grant Program state					✓					
Hangar construction funding	✓	✓	✓	✓			✓			✓
License airports		✓		✓				✓		
Navigational aid (NAVAID) project funding		✓	✓	✓	✓		✓	✓	✓	✓
Operate state-owned airports	✓			✓					✓	
Own and operate state aircraft	✓	✓		✓	✓	✓		✓	✓	✓
Pilot registration										
Search and rescue program								✓	✓	
State funding (FAA matching only)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
State funding (state-only grants)	✓	✓	✓	✓	✓		✓	✓	✓	✓
State-only loans	✓	✓	✓		✓					

Source: NASAO 2015

Overall, the ADOT Aeronautics Group's duties are similar to other state aviation divisions across the U.S. However, additional duties that the ADOT Aeronautics Group may want to consider depending on staffing and resources available include producing an airport directory to promote the statewide aviation system; implementing an airport preservation program; participating in an aviation education outreach program to positively impact workforce development and support the airport economic engine of the statewide system of airports; and supporting a statewide NAVAID program to enhance safety and economic opportunities across the statewide system of airports.

SUMMARY

This chapter identified the primary policy mechanisms affecting Arizona's airport system. In recent years, the aviation industry has experienced significant changes that have catalyzed the need to re-evaluate these policies to ensure Arizona's aviation system continues to effectively accommodate existing and future demands. To provide a broader context for this discussion, a comparison of the duties and powers of the ADOT Aeronautics Group with other state aeronautics departments was also provided. This information provides the framework for policy and development recommendations that will be developed as the final outcome of the SASP Update.