



Georgia Department of Transportation



2023

GEORGIA STATEWIDE

HANGAR INVENTORY AND
DEMAND ANALYSIS

TECHNICAL REPORT

ABSTRACT

In late summer 2023, the Georgia Department of Transportation (GDOT) initiated a Statewide Hangar Inventory and Demand Analysis, a study in response to recommendations from the 2021 Joint Legislative Study Committee on Airport Infrastructure and Improvements.

The hangar inventory and demand analysis report documents current statewide hangar availability, hangar conditions, and unmet demand for additional aircraft storage. Aside from the hangar inventory and demand analysis, a nationwide survey to identify programs in other states that provide funding for hangar construction was conducted. A best practices guide was also completed to help airport management track hangar demand including steps to manage hangar waiting lists, establish fair market value rents, and remain in compliance with federal grant assurances.

As part of this effort, GDOT surveyed and interviewed 102 airports. The surveys collected information from airports on their current hangar waiting list(s), general information on hangar characteristics and management practices, and rental rates for different hangar types. Virtual interviews were conducted with each airport to discuss the characteristics and conditions for each existing hangar structure. Through a partnership with the National Association of State Aviation Officials (NASAO), a nationwide scan of the other 49 states was conducted to obtain information on loan and grant programs for hangar development. These efforts also helped to develop a best practice guide which will serve as a vital resource for airports across Georgia.

Based on the information collected and analyzed in this study, there are 1,298 existing hangar structures providing 4,828 parking spaces for different types of aircraft across the State of Georgia. Of the 1,298 reported structures, 46 percent are owned by airports and 54 percent are owned by others/privately. It should be noted that approximately 15 percent of the existing structures are in failing or poor condition, while 85 percent of the existing structures are reported as being in good to excellent condition. The estimated average age of all hangar structures in Georgia is approximately 30 years.

Analysis of the current waiting lists for hangar storage revealed a current unmet demand for 1,405 additional hangar spaces at the study airports. The unmet demand of 1,405 hangar spaces was determined by removing duplicate and out-of-date entries from the “unfiltered” statewide waiting list of 2,397 original entries. Of the 1,405 owners seeking a hangar space, some aircraft are currently parked on outdoor tie-down spaces at one of the study airports, while other aircraft are coming from other states or privately owned non-study airports. Also, among the 1,405 owners seeking hangar storage, there are businesses and individuals who plan to buy new aircraft and aircraft owners that are second homeowners in Georgia.

The preliminary cost estimate in today’s dollars to construct new hangar storage facilities to accommodate the demand for 1,405 additional spaces is estimated to be \$450 million. At the same time, an estimated \$11.8 million is needed to replace existing hangars that are reported in failed condition.

Aircraft hangar storage is a national problem and other states have developed investment approaches that can be considered to address unmet demand for hangar storage. Considerations could include increasing existing state funding and expanding eligibility for revenue producing projects such as hangars; promoting better understanding and use of existing local funding sources; and/or establishing a state revolving loan program for hangar construction. These approaches can assist airports to become as financially self-sufficient as possible.

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STATEWIDE HANGAR INVENTORY AND DEMAND ANALYSIS

Georgia Senate Resolution 84, adopted on May 10, 2021, resulted in the creation of The Joint Study Committee on Airport Infrastructure and Improvements (Committee) in recognition of the need to maintain and improve statewide infrastructure for public-use airports. As a result of the Committee’s efforts, the Senate Research Office issued *The Final Report of the Joint Study Committee on Airport Infrastructure and Improvements* (Report) in late December 2021. The Report included recommendations to investigate the demand for additional hangar storage at airports in Georgia. Based on findings from statewide research, the Legislature could assess identified demand and options for supporting infrastructure improvements.

To better understand the demand for hangar storage in the state, this study was undertaken by GDOT Aviation Programs in the summer of 2023. The statewide study includes analysis to identify current hangar storage demand at 102 publicly owned, public-use airports in Georgia; the study does not include Hartsfield-Jackson Atlanta International Airport (ATL).

The study has three primary components:

- A statewide hangar inventory and demand analysis.
- A survey of other states to identify respective hangar funding policies and funding sources for aircraft hangars (**Appendix A**).
- A guide to help airports establish best practices for hangar related activities such as rate setting, inspections, leases, ownership, reversion clauses, and hangar waiting lists. The “best practices guide” is a stand-alone report that is available from GDOT at the website referenced below.

This report focuses primarily on the results of the hangar inventory and demand analysis, while also providing high-level findings from the survey of other states related to their policies and practices for funding aircraft hangars. All documents are available at <https://www.dot.ga.gov/GDOT>.

1. Airport Outreach/Online Surveys

The study started with multi-faceted outreach to the 102 study airports. Initially, all airports were contacted by GDOT to inform them of the statewide hangar inventory study, its processes, and its objectives.

1.1 Hangar Waiting List Survey

The first survey distributed to the study airports requested each airport submit (online) its most current hangar waiting list.

Initially, the following information was requested from each airport related to aircraft owners on their current waiting list:

- Name of aircraft owner.
- Date aircraft requested that it be added to the airport’s waiting list.

- Email, phone, and address of the aircraft owner (individual or business).
- Make of the aircraft, along with the aircraft's N-number.
- Hangar type requested to store each aircraft.

Before submitting the hangar waiting lists, GDOT requested that airports ensure their list was current and did not contain individuals who are no longer seeking hangar storage space. The survey effort revealed that, while all Georgia airports keep some type of hangar waiting list, many airports do not maintain their lists to the level of detail noted above. GDOT's guide on best hangar practices provides a sample aircraft waiting list that is recommended to be used by all Georgia airports going forward. More detailed reporting is needed to confirm the validity of all hangar waiting lists on a regional and statewide basis. In the future, it is suggested that airports provide the registration number (also referred to as N-numbers) for each aircraft and indicate where each aircraft on the waiting list is currently stored/based—unless the aircraft is going to be purchased. In these situations, a date of anticipated purchase should be provided. Future hangar waiting lists should indicate if an aircraft is currently based (stored either in a hangar or on tie-down) at the airport where the aircraft has been entered on a waiting list.

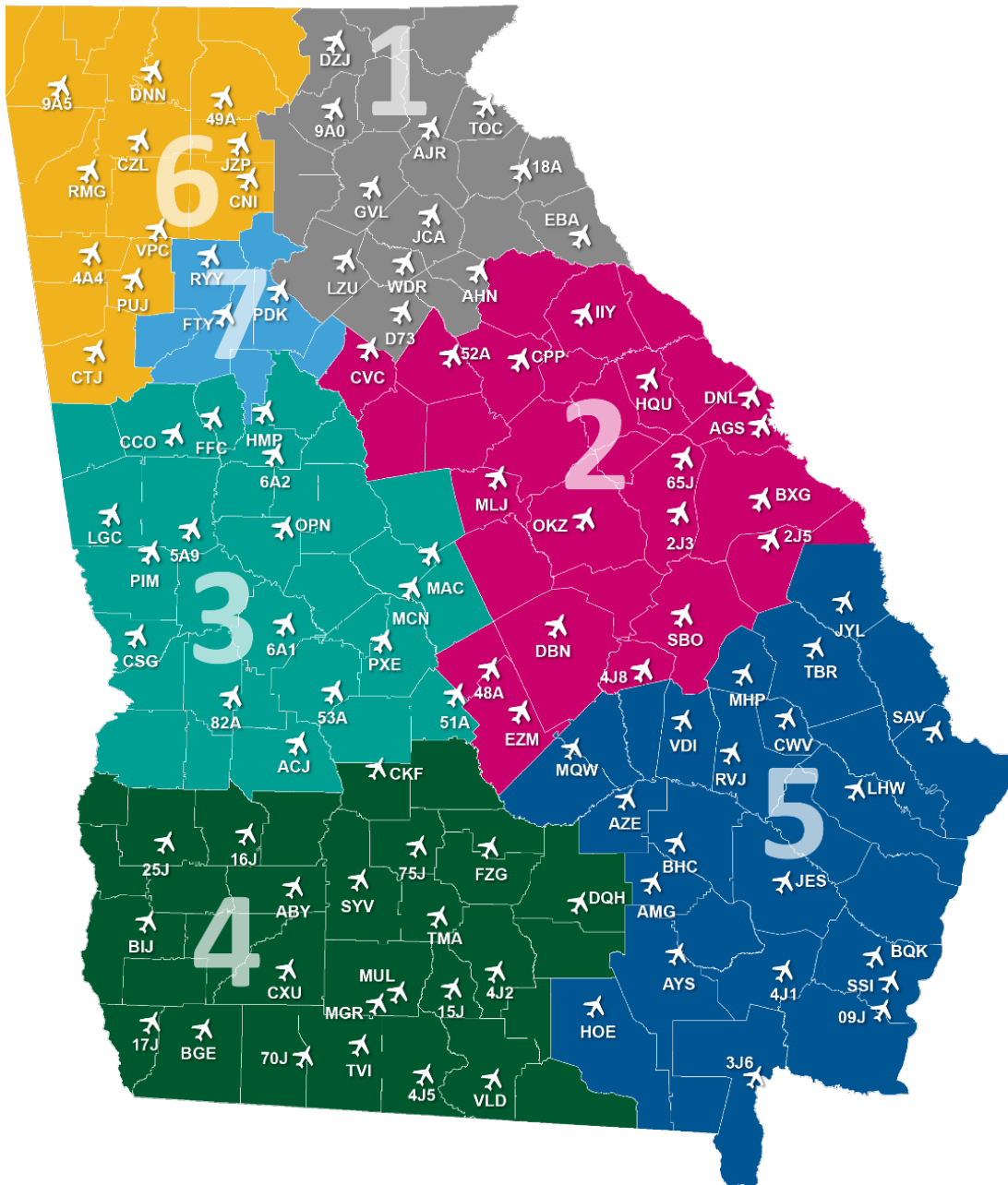
Future hangar waiting lists that provide this level of detail will benefit airport sponsors, GDOT, and the FAA. Accurate and current hangar waiting lists are integral to substantiating actual demand for additional hangar storage on an airport-by-airport basis.

The results from the waiting list survey show that all of the 102 study airports ultimately participated in this survey. Twenty-six (26) of the study airports provided a hangar waiting list without any contact or identification information for the aircraft included on their waiting list. The waiting lists for the remaining 76 study airports provided some form of contact or identification for most aircraft included on the hangar waiting list. Out of the 102 study airports, 17 airports indicate that they do not currently have any individuals on a hangar waiting list.

For all study airports that participated in the hangar waiting list survey, the unfiltered statewide hangar waiting list includes 2,397 individuals/aircraft. While there are many reasons for an aircraft to be on a hangar waiting list, among these are individuals and/or corporate entities purchasing a new aircraft, individuals moving their aircraft from a privately-owned airport to a public facility, and/or owners moving their aircraft from another state to Georgia. Also, based aircraft at study airports currently parked on outdoor tie-down spaces, these aircraft are often on a waiting list for a covered hangar storage space. Further evaluation of the unfiltered statewide hangar waiting list is part of this research which is presented later in this report.

Figure 1-1 reflects airports that are in each GDOT Transportation District. **Table 1-1** provides an alphabetical listing of the study airports in each of the seven GDOT Districts. **Table 1-1** also identifies the total number of current based aircraft for airports in each district.

Figure 1-1: GDOT Transportation Districts and Study Airports



Source: Jviation, a Woolpert Company

Table 1-1: Listing of Study Airports by GDOT Transportation District

City	County	FAA ID	Airport	Based Aircraft
Athens	Clarke	AHN	Athens-Ben Epps Airport	80
Blairsville	Union	DZJ	Blairsville Airport	49
Canon	Franklin	18A	Franklin-Hart Airport	26
Cornelia	Habersham	AJR	Habersham County Airport	81
Dahlonega	Lumpkin	9A0	Lumpkin County-Wimpy's Airport	21
Elberton	Elbert	EBA	Elbert County Airport-Patz Field	24
Gainesville	Hall	GVL	Lee Gilmer Memorial Airport	172
Jefferson	Jackson	JCA	Jackson County Airport	60
Lawrenceville	Gwinnett	LZU	Gwinnett County Airport-Briscoe Field	261
Monroe	Walton	D73	Cy Nunnally Memorial Airport	35
Toccoa	Stephens	TOC	Toccoa Airport-R.G. LeTourneau Field	43
Winder	Barrow	WDR	Barrow County Airport	128
GDOT District 1 Total				980
Atlanta	Newton	CVC	Covington Municipal Airport	29
Augusta	Richmond	AGS	Augusta Regional Airport at Bush Field	18
Augusta	Richmond	DNL	Daniel Field Airport	54
Cochran	Bleckley	48A	Cochran Airport	25
Dublin	Laurens	DBN	W.H. "Bud" Barron Airport	22
Eastman	Dodge	EZM	Heart of Georgia Regional Airport	71
Greensboro	Greene	CPP	Greene County Regional Airport	21
Louisville	Jefferson	2J3	Louisville Municipal Airport	13
Madison	Morgan	52A	Madison Municipal Airport	17
Milledgeville	Baldwin	MLJ	Baldwin County Airport	30
Millen	Jenkins	2J5	Millen Airport	10
Sandersville	Washington	OKZ	Kaolin Field Airport	27
Soperton	Treutlen	4J8	Treutlen County Airport	0
Swainsboro	Emanuel	SBO	East Georgia Regional Airport	19
Thomson	Mc Duffie	HQU	Thomson-McDuffie County Airport	34
Washington	Wilkes	IY	Washington-Wilkes County Airport	15
Waynesboro	Burke	BXG	Burke County Airport	13
Wrens	Jefferson	65J	Wrens Memorial Airport	3
GDOT District 2 Total				421
Americus	Sumter	ACJ	Jimmy Carter Regional Airport	33
Atlanta	Coweta	CCO	Newnan-Coweta County Airport	165
Atlanta	Fayette	FFC	Atlanta Regional Airport-Falcon Field	282
Buena Vista	Marion	82A	Marion County Airport	2
Butler	Taylor	6A1	Butler Municipal Airport	15
Columbus	Muscogee	CSG	Columbus Airport	132
Griffin	Spalding	6A2	Griffin-Spalding County Airport	120

City	County	FAA ID	Airport	Based Aircraft
Hampton	Henry	HMP	Atlanta Speedway Airport	126
Hawkinsville	Pulaski	51A	Hawkinsville-Pulaski County Airport	2
LaGrange	Troup	LGC	LaGrange-Callaway Airport	53
Macon	Bibb	MAC	Macon Downtown Airport	44
Macon	Bibb	MCN	Middle Georgia Regional Airport	99
Montezuma	Macon	53A	Dr. C.P. Savage, Sr. Airport	14
Perry	Houston	PXE	Perry-Houston County Airport	89
Pine Mountain	Harris	PIM	Harris County Airport	36
Thomaston	Upson	OPN	Thomaston-Upson County Airport	111
Warm Springs	Meriwether	5A9	Roosevelt Memorial Airport	35
GDOT District 3 Total				1,358
Adel	Cook	15J	Cook County Airport	33
Albany	Dougherty	ABY	Southwest Georgia Regional Airport	37
Ashburn	Turner	75J	Turner County Airport	14
Bainbridge	Decatur	BGE	Decatur County Industrial Air Park	34
Blakely	Early	BIJ	Early County Airport	19
Cairo	Grady	70J	Cairo-Grady County Airport	17
Camilla	Mitchell	CXU	Camilla-Mitchell County Airport	28
Cordele	Crisp	CKF	Crisp County-Cordele Airport	15
Cuthbert	Randolph	25J	Lower Chattahoochee Regional Airport	1
Dawson	Terrell	16J	Dawson Municipal Airport	34
Donalsonville	Seminole	17J	Donalsonville Municipal Airport	27
Douglas	Coffee	DQH	Douglas Municipal Airport	75
Fitzgerald	Ben Hill	FZG	Fitzgerald Municipal Airport	37
Moultrie	Colquitt	MGR	Moultrie Municipal Airport	45
Moultrie	Colquitt	MUL	Spence Airport	3
Nashville	Berrien	4J2	Berrien County Airport	11
Quitman	Brooks	4J5	Quitman Brooks County Airport	29
Sylvester	Worth	SYV	Sylvester Airport	5
Thomasville	Thomas	TVI	Thomasville Regional Airport	43
Tifton	Tift	TMA	Henry Tift Myers Airport	35
Valdosta	Lowndes	VLD	Valdosta Regional Airport	67
GDOT District 4 Total				609
Alma	Bacon	AMG	Bacon County Airport	14
Baxley	Appling	BHC	Baxley Municipal Airport	28
Brunswick	Glynn	BQK	Brunswick-Golden Isles Airport	28
Claxton	Evans	CWV	Claxton-Evans County Airport	21
Folkston	Charlton	3J6	Davis Field Airport	8
Hazlehurst	Jeff Davis	AZE	Hazlehurst Airport	28
Hinesville	Liberty	LHW	Wright Army Airfield (Fort Stewart)/MidCoast Regional Airport	41

City	County	FAA ID	Airport	Based Aircraft
Homerville	Clinch	HOE	Homerville Airport	4
Jekyll Island	Glynn	09J	Jekyll Island Airport	6
Jesup	Wayne	JES	Jesup-Wayne County Airport	10
McRae	Wheeler	MQW	Telfair-Wheeler Airport	13
Metter	Candler	MHP	John Edwin Jones Sr. Field/Metter Municipal Airport	28
Nahunta	Brantley	4J1	Brantley County Airport	0
Reidsville	Tattnall	RVJ	Swinton Smith Field at Reidsville Municipal Airport	15
Savannah	Chatham	SAV	Savannah-Hilton Head International Airport	150
St Simons Island	Glynn	SSI	St. Simons Island Airport	100
Statesboro	Bulloch	TBR	Statesboro-Bulloch County Airport	61
Sylvania	Screven	JYL	Plantation Airpark	36
Vidalia	Toombs	VDI	Vidalia Regional Airport	27
Waycross	Ware	AYS	Waycross-Ware County Airport	49
GDOT District 5 Total				667
Atlanta	Paulding	PUJ	Paulding-Northwest Atlanta Airport	41
Calhoun	Gordon	CZL	Tom B. David Field Airport	123
Canton	Cherokee	CNI	Cherokee County Regional Airport	129
Carrollton	Carroll	CTJ	West Georgia Regional Airport-O.V. Gray Field	135
Cartersville	Bartow	VPC	Cartersville Airport	68
Cedartown	Polk	4A4	Polk County Airport-Cornelius Moore Field	63
Dalton	Whitfield	DNN	Dalton Municipal Airport	40
Ellijay	Gilmer	49A	Gilmer County Airport	17
Jasper	Pickens	JZP	Pickens County Airport	100
LaFayette	Walker	9A5	Barwick LaFayette Airport	42
Rome	Floyd	RMG	Richard B. Russell Regional Airport - J.H. Towers Field	80
GDOT District 6 Total				838
Atlanta	Cobb	RYY	Cobb County International Airport-McCollum Field	365
Atlanta	De Kalb	PDK	DeKalb-Peachtree Airport	320
Atlanta	Fulton	FTY	Fulton County Executive Airport/Charlie Brown Field	96
GDOT District 7 Total				781
Overall Total				5,654

Source: Basedaircraft.com and FAA 5010 (as of October 2023)

The hangar waiting list survey also asked airports to provide other information. Airports were asked to provide the following:

- Is there a monetary deposit for an aircraft to be placed on your hangar waiting list? For all study airports that provided a response, only 8 percent of the airports indicate that they require a monetary deposit to be added to the airport’s hangar waiting list. Lack of a deposit or lack of a refundable deposit when an individual joins a hangar waiting list contributes to duplications and out of date entrants on any hangar waiting list.

- Responding airports were also asked to provide information on the “charge” for an aircraft to be on their hangar waiting list. For all responding airports, the charge to be on a hangar waiting list ranges from a high of \$250 to a low of \$50. The current average statewide charge to be on a hangar waiting list, for survey respondents, is \$125. The best practices guide for hangars being developed in conjunction with this study provides guidance on appropriate fees and policies for joining a hangar waiting list.
- Airports participating in the waiting list survey were also asked to indicate if they have a written policy governing the management of their hangar waiting list. Among all respondents, 22 percent of the airports indicate they have a written policy, and the remaining 78 percent of the airports indicate they do not have a written policy. An example policy is contained in the best practices guide. Lack of policies on the management of hangar waiting lists is a contributing factor to hangar waiting lists that do not reflect actual need for additional hangar spaces.

The companion best practices guide available from GDOT, developed in conjunction with this effort, provides information to Georgia airports on how to implement, maintain, and update hangar waiting lists. Information on hangar waiting list policies is also available in this guide. Accurate hangar waiting lists are essential for estimating statewide hangar needs.

1.2 Basic Hangar Inventory Survey

The second part of the hangar inventory survey involved outreach to all study airports through an initial email and online survey. This survey laid the groundwork for more detailed inventory and analysis of individual hangar structures at each study airport.

This second survey effort collected the following information:

- Hangar ownership.
- Existing unoccupied hangar spaces.
- Existing hangar spaces used for activities other than aircraft storage.
- Hangar spaces located off-airport property.
- Recently completed hangar development.
- Pending (within 24 months) hangar development.

Using established GDOT Transportation Districts, this section of the report provides a high-level summary for key data points identified above. On a statewide basis, the results from this portion of the hangar inventory produced the following statewide information:

- Study airports report a total of 1,298 existing hangar storage structures (structures do not indicate individual aircraft storage spaces). Generally, existing hangar structures provide an estimated 4,828 parking spaces. Investigation shows that 46 percent of these hangar structures are owned/controlled by study airports; the remaining 54 percent of all hangar structures in Georgia are owned by an FBO, a private individual/company, or another third-party entity.
- The number of aircraft based or permanently stored at the study airports fluctuates. Reporting from basedaircraft.com and other FAA sources, current as of October 2023, indicated 5,654 aircraft based at all study airports. According to airport reporting and study

analysis, an estimated 85 percent of all based aircraft at study airports are currently stored in a hangar. Approximately 849 of the state’s current based aircraft are reportedly not in hangar storage. This finding is important to help establish hangar storage needs for Georgia airports, as most of these aircraft are on current hangar waiting lists.

- Study research shows that in the next 24 months some airports report their Capital Improvement Programs (CIP) include additional hangar structures. Information was not collected to determine the type of hangar structures, nor did the study determine if funding/financing is in place for planned structures. In many cases, review of CIPs shows that some airports have not identified a viable funding source for planned projects on their respective CIPs. The information summarized above is presented statewide and by GDOT Transportation District in tables in the next section of this report.

As noted, the hangar inventory survey also sought information on existing hangar spaces that are being used for purposes other than aircraft storage. The survey outreach revealed, in some limited cases, airports report that hangar storage space is being used for aviation-related activities instead of aircraft storage. These activities include office space for aviation tenants/businesses, storage of airport equipment, and/or aircraft maintenance. The number of these reported instances does not appear to significantly impact aircraft storage capabilities for the system or for individual study airports. Airports did not report any non-aviation uses for their current aircraft storage spaces.

Another portion of this survey sought information on hangars that are off airport property or Through-The-Fence (TTF). A limited number of study airports have hangar storage located off-airport property.

During data collection, each airport was asked to specify if they have aircraft hangars which have airfield access but are not located on airport property. These types of hangars are located on private land adjacent to the airport’s property, and have access to the airfield, either directly or by way of a TTF agreement. TTFs are used by airports to allow for individuals or companies with private land adjacent to the airfield to have access to airside facilities, such as aprons, taxiways, and runways. These agreements are often associated with manufacturing, museums, or flight schools, which have facilities located on private property and a taxiway which connects facilities and buildings to the airport’s airside facilities. These agreements also include individuals who construct hangars on private property and have direct access to the airport from their private hangar.

During the initial data collection phase of the study, 12 airports responded positively when asked if there are hangars which have airfield access that are not located on airport property. Each of the 12 airports’ most recent Airport Layout Plan (ALP) was analyzed to determine the airport’s property line and confirm these off-airport hangars. The analysis of each airport’s ALP resulted in the identification of off-airport hangars for all 12 airports. These 12 airports and the corresponding number of off-airport hangars and aircraft parking spaces are shown here. It should be noted that Southwest Georgia Regional Airport (ABY) has a TTF agreement with Thrush Aviation; however, these off-airport facilities are used primarily for aircraft manufacturing and maintenance, and not aircraft storage. **Table 1-2** provides information collected during the inventory effort on TTF hangars. Information in **Table 1-2** reflects off airport hangar structures and aircraft storage spaces. It is possible that airports have other off airport hangars or other structures; but if these are not “rentable” or used for aircraft storage, they are not included in **Table 1-2**.

Table 1-2: Georgia Airport TTF Hangars

City	County	Airport	FAA ID	GDOT District	Off-Airport Hangar Structures	Off-Airport Hangar Spaces
Albany	Dougherty	Southwest Georgia Regional Airport	ABY	4	0	0
Atlanta	Fayette	Atlanta Regional Airport-Falcon Field	FFC	3	3	13
Bainbridge	Decatur	Decatur County Industrial Air Park	BGE	4	2	17
Cochran	Bleckley	Cochran Airport	48A	2	4	10
Eastman	Dodge	Heart of Georgia Regional Airport	EZM	2	6	34
Folkston	Charlton	Davis Field Airport	3J6	5	1	3
Hampton	Henry	Atlanta Speedway Airport	HMP	3	4	75
Hawkinsville	Pulaski	Hawkinsville-Pulaski County Airport	51A	3	1	1
LaFayette	Walker	Barwick LaFayette Airport	9A5	6	9	11
Macon	Bibb	Macon Downtown Airport	MAC	3	1	4
McRae	Wheeler	Telfair-Wheeler Airport	MQW	5	1	2
Waynesboro	Burke	Burke County Airport	BXG	2	5	7
Total					37	177

Source: Study Surveys and ALP Review; off-airport hangars at ABY are used to support aircraft manufacturing and are not used for storage.

Ultimately, information that was secured as part of this survey is used to identify, airport-by-airport, the need for additional hangar storage space. The exercise to identify additional hangar storage space is discussed in a subsequent section of this report. Any hangar spaces that are currently available, either on or off-airport, are included in this analysis.

1.3 Hangar Structure Survey

This section provides a summary of statewide findings from the hangar interviews. In addition, survey results are also summarized and reported for airports in each GDOT district.

1.3.1 GIS Dashboard

In addition to the two online surveys discussed in the previous sections; a more detailed survey was undertaken to gather information on each individual hangar structure at each study airport. The first step in this process included creating a GIS layer. This layer includes each of the study airports and identifies by number each hangar storage structure.

1.3.2 Summary of Statewide Hangar Inventory

Summary information, statewide and by GDOT District, for individual hangar characteristics is presented in **Table 1-3**. T-hangars, which often accommodate a single aircraft, typically exist in rows of eight to ten individual units. Corporate/box hangars vary widely in terms of their size and can often accommodate more than a single aircraft. Community hangars are larger conventional hangars that often house multiple aircraft of varying sizes/types associated with different owners.

Table 1-3: Summary of Statewide Hangar Information

Hangar Structure Ownership		
Hangar Structures Owned by Airports	603	46%
Hangar Structures Owned by Others	695	54%
Hangar Structures by Type		
T-Hangar	359	28%
Corporate/Box	709	55%
Community	138	10%
Maintenance/MRO	92	7%
Hangar Storage Counts		
Hangar Structures		1,298
Number of Aircraft Parking Spaces (estimated)		4,828
Reported Based Aircraft Not Stored in Hangar		849
Hangar Structure Condition (Estimated)		
Hangar Structures in Failed Condition	30	2%
Hangar Structures in Poor Condition	164	13%
Hangar Structures in Good Condition	733	57%
Hangar Structures in Excellent Condition	368	28%
Hangar Structures – Condition Not Reported	3	0.2%
Existing Hangar Structure Construction Timeframe		
pre-1940	1	>1%
1940-1949	13	1%
1950-1959	14	1%
1960-1969	47	4%
1970-1979	144	11%
1980-1989	193	15%
1990-1999	315	24%
2000-2009	296	23%
2010-2019	158	12%
2020-present	73	6%
Unknown	44	3%

Source: Jviation, a Woolpert Company

Note: Rounded totals may not sum.

Using the information presented in **Table 1-3**, which summarizes the statewide results from the survey analyses, yields the following observations:

Hangar Ownership – Statewide, there are a reported 1,298 hangar structures. It is worth noting these are structures, not parking spaces within the hangar structures. The structures account for an estimated 4,828 aircraft parking spaces. Study research indicates that 46 percent of all hangar structures in Georgia are owned by the airport sponsor. The remaining 54 percent are owned by another entity such as an FBO, corporation/business, or third-party developer. Recent pricing for building materials has spiked exponentially due to pandemic related inflation and supply chain issues. These increased costs have continued and make constructing new hangars a challenge; it is difficult to charge rates that are acceptable to aircraft owners while still allowing the cost of the hangar structure to be amortized over a reasonable amount of time. This complication has been a factor contributing to a possible hangar shortage in Georgia and nationally.

A companion research effort for this study included outreach to all other 49 states. A major focus of this research was to determine how other states are providing funds for hangar development. A summary of findings from this research, as it relates to hangar funding, is provided in **Appendix A** to this document.

Hangar Structure Type – While there are many types of hangar structures, this inventory assigned all hangar structures to one of four categories: T-hangars, corporate/box hangars, community hangars, and maintenance/MRO hangars. T-hangars are most frequently constructed in groups, can be built in multiple configurations, and house single-engine or small twin-engine aircraft. Occasionally, T-hangars are constructed with larger end units that can accommodate smaller business jets and/or an aircraft along with office space. Corporate/box hangars vary in size (square footage); often, these structures accommodate a single plane but can also accommodate multiple aircraft, depending on aircraft type/hangar size. Community hangars are the largest in terms of square footage, and they accommodate multiple aircraft. Again, the number of aircraft that can be stored in a community hangar varies based on the size of the building and the type/wingspan of the aircraft being stored. Community hangars also often have some space set aside to accommodate office/administrative functions. The GDOT inventory concluded that a number of hangar structures at study airports are classified as maintenance or MRO hangars. These types of structures are not typically used for permanent aircraft storage. The inventory effort concludes that on a statewide basis:

- 28 percent of Georgia’s existing hangar structures are T-hangars.
- 55 percent are corporate/box hangars.
- 10 percent are community hangars.
- 7 percent are maintenance/MRO hangars (not used for storage).

Table 1-4 presents information on the statewide distribution of ownership by hangar type. As shown, statewide, 74 percent of all T-hangars are owned by study airports. Conversely, for corporate hangars, statewide, 71 percent of these hangars are owned by others, not the airports. Third-party developers are more likely to participate in the development of corporate/box hangars than they are T-hangars. Airports currently own the majority of the community hangars, which most often house aircraft belonging to multiple owners. The split in ownership for maintenance/MRO is relatively equal between the airports and other entities.

Table 1-4: Georgia Hangar Ownership by Structure Type

	T-hangar		Corporate		Community		Maintenance/MRO	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Airport Owned	267	74%	208	29%	86	62%	42	46%
Owned by Others	92	26%	501	71%	52	38%	50	54%
Total	359	100%	709	100%	138	100%	92	100%

Source: Jviation, a Woolpert Company

While T-hangars only make-up 28 percent of all hangar structures in Georgia, they undoubtedly account for the majority of all hangar parking spaces. Assuming T-hangars, on average, contain eight individual units and therefore accommodate eight aircraft, these structures could be providing 2,872 aircraft parking spaces which would account for approximately 60 percent of all storage spaces identified in this analysis. According to research by the Aircraft Owners and Pilots Association (AOPA), an estimated 90

percent of their members currently seeking hangar storage are seeking a T-hangar space—most of these aircraft owners operate single engine planes.

Hangar Storage Counts – As reported, there are currently an estimated 1,298 structures at the study airports. The number of aircraft each structure can accommodate depends on factors such as aircraft size (i.e., a greater number of smaller planes can be stored in community hangar structures). Owner preferences influence the number of planes parked in many hangar structures. Some structures can accommodate multiple aircraft, but individual owners may prefer to store a single plane. Input obtained during this study’s interview process indicates an increase in the share of aircraft owners that prefer private aircraft storage over shared hangar space.

Given owner preferences and preferred parking configurations in box, corporate, and community hangars, it is estimated that for all hangar structures at 102 study airports the number of parking spaces is 4,828. While it is theoretically possible to “squeeze” more aircraft into certain types of hangars, owners typically prefer space to maneuver and separation to protect their plane from damage by other moving aircraft. Based on this statewide estimate, combined, all airports currently have hangar parking spaces to accommodate about 85 percent of all reported statewide based aircraft.

This finding corresponds with other hangar inventory results. According to information supplied by airport representatives, statewide there are currently an estimated 849 based aircraft that are not stored in a hangar. With 5,654 current based aircraft, unhangared aircraft currently account for 15 percent of all based aircraft at the study airports.

The hangar inventory also collected information on hangar spaces that are currently not occupied. For all 102 study airports, the inventory reported 222 hangar spaces that are not currently occupied. Based on supplied anecdotal information, the study effort assumed that a high percentage of these spaces are not currently suitable for occupancy. The majority of the spaces that are not occupied are in buildings that are classified as in failing or poor condition, with many unoccupied spaces having reported issues with their doors. In more limited instances, while a hangar space might be classified as “open,” the characteristics/size of the space does not correspond with aircraft at that airport seeking hangar storage (i.e., aircraft wingspans are too wide for an available hangar space).

The inventory interviews also collected information from each airport representative related to new storage spaces they expect to be developed. Airports are optimistic about the number of new storage spaces that may be developed in the next two years. However, those familiar with the process to build new hangars caution that site preparation, funding, permitting, and other factors may dampen this estimate. While it is important to know that in the near-term study airports anticipate new storage spaces, the timeframe to realize this new development could most likely exceed the 24-month window. Review of CIPs for airports indicating they plan new hangars in the next 24 months shows that most do not identify a viable funding source for new hangars. As a result, this dampens the feasibility of near-term hangar development.

GDOT’s state airport system plan provides a blueprint for ensuring a healthy airport system, one that is geared to accommodating aviation demand, meeting the state’s transportation needs, and supporting the state’s economy. Across the U.S. and in Georgia, an increasing number of aircraft owners are seeking hangar storage. Recent interviews by the Aircraft Owners and Pilots Association (AOPA) of their members in other states (Pennsylvania, Louisiana, and Colorado) revealed that almost every member

interviewed is seeking hangar storage for their plane. Based on data collected as part of the hangar inventory, currently 85 percent of all aircraft statewide in Georgia are stored in a hangar. As discussed later in this report, statewide and airport-specific hangar waiting lists indicate that most based aircraft now parked on a tie-down would prefer to be in hangar storage.

Hangar Structure Condition and Age – While a major focus of the hangar inventory effort was to identify new hangar storage needs, the inventory also collected important information on the age and condition of existing hangar structures throughout the state. Assessments on the current condition of hangar structures throughout Georgia are based on input from each airport representative who participated in the survey effort. Reported conditions are not based on actual engineering evaluations.

According to airport reports, of the total 1,298 hangar structures in the state:

- 2 percent are reported as being in failing condition.
- 13 percent are reported as being in poor condition.
- 57 percent are reported as being in good condition.
- 28 percent are reported as being in excellent condition.

There is demand for new hangars in Georgia but improving and/or maintaining existing hangar structures is also important. As part of this effort, the cost to replace existing hangars that are in failed condition is provided in a subsequent section of this report; 30 existing hangar structures are reported in failed condition. In addition to the structures reported in failed condition, another 164 existing hangar structures are reported in poor condition. As part of the best practices guide developed as part of this planning effort, mechanisms to monitor the condition of Georgia’s hangar structures are identified.

Information on the estimated age of hangar structures helps provide another perspective on the life expectancy for Georgia’s existing hangar storage. Of the 1,298 hangar structures, 32 percent of all structures are 30 years old or older, built before 1990; 27 percent of all existing hangar structures were built between 1990 and 2000; and 35 percent of all existing hangar structures were built between 2000 and 2020. This indicates that this later portion of Georgia’s existing hangar structures should have a reasonable useful life expectancy, assuming hangars are properly maintained.

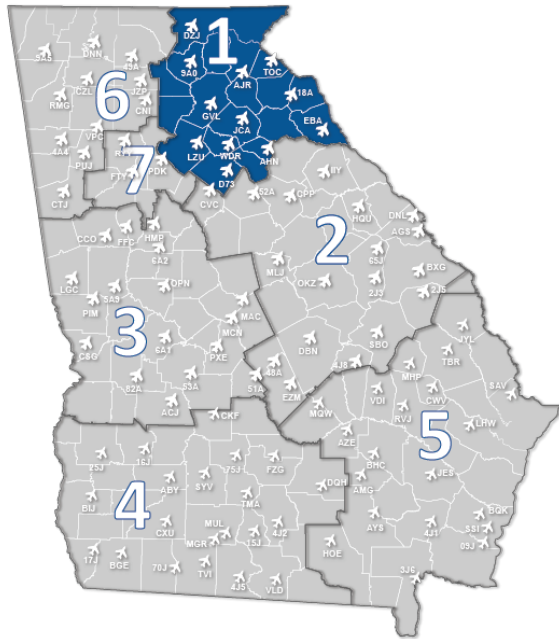
Hangar age data also reveals an apparent trend: an implied decline in the number of hangar structures that are being built. Between 1990 and 1999, 315 hangar structures were built. Between 2000 and 2009, this number declined slightly to 296 structures. Between 2010 and 2019, the reported number of new hangar structures in Georgia fell to 158. From 2020 to 2023, 73 new hangar structures have been completed. Rising hangar construction costs have no doubt contributed to lower numbers for new hangar construction. Later sections in this report provide examples of how hangar construction costs have escalated.

1.3.3 Summary of Survey Results by GDOT District

Information from **Table 1-3** (shown earlier) helps form the foundation for subsequent analysis to identify Georgia’s hangar development needs. **Tables 1-5** through **1-8** consider the same reporting metrics and summarize survey findings for each GDOT district. In **Tables 1-5**, District 1 results are benchmarked against similar statewide findings. **Figure 1-1** previously showed airports in each GDOT district, and **Table 1-1** previously reported airports in each district and the number of aircraft currently based at airports in each district.

District 1

Figure 1-2: GDOT District 1 Study Airports



CITY	COUNTY	FAA ID	AIRPORT NAME	BASED AIRCRAFT
Athens	Clarke	AHN	Athens-Ben Epps Airport	80
Blairsville	Union	DZJ	Blairsville Airport	49
Canon	Franklin	18A	Franklin-Hart Airport	26
Cornelia	Habersham	AJR	Habersham County Airport	81
Dahlonega	Lumpkin	9A0	Lumpkin County-Wimpy's Airport	21
Elberton	Elbert	EBA	Elbert County Airport-Patz Field	24
Gainesville	Hall	GVL	Lee Gilmer Memorial Airport	172
Jefferson	Jackson	JCA	Jackson County Airport	60
Lawrenceville	Gwinnett	LZU	Gwinnett County Airport-Briscoe Field	261
Monroe	Walton	D73	Cy Nunnally Memorial Airport	35
Toccoa	Stephens	TOC	Toccoa Airport-R.G. LeTourneau Field	43
Winder	Barrow	WDR	Barrow County Airport	128
GDOT DISTRICT 1 TOTAL				980

Source: Jviation, a Woolpert Company

Table 1-5 summarizes hangar inventory results for GDOT District 1, **Figure 1-2** shows District 1 airports. This table compares summary results for the district to similar statewide results. The comparison does show some slight variances, but no significant differences between district and statewide survey results. A slightly higher percentage of hangar structures in District 1 are airport owned, as opposed to owned by other entities.

Table 1-5: Summary of Hangar Information GDOT District 1

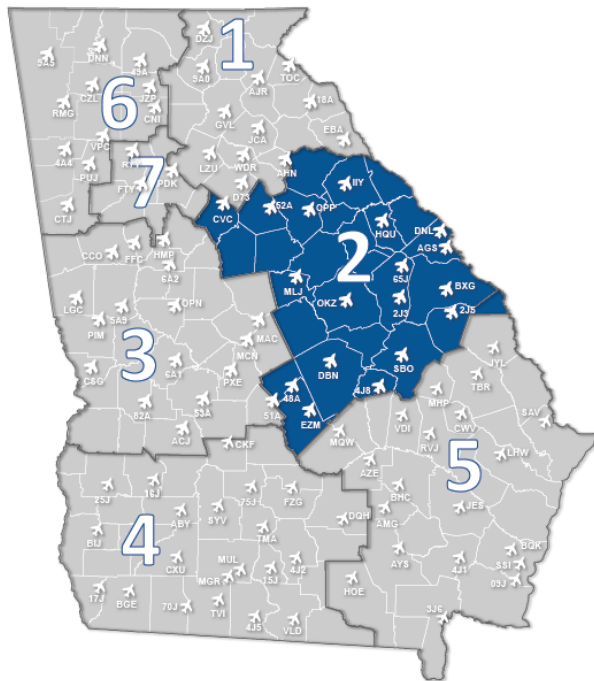
District 1				
Hangar Ownership				
	District 1		Statewide	
	Count	Percent	Count	Percent
Hangar Structures Owned by Airports	105	56%	603	46%
Hangar Structures Owned by Others	82	44%	695	54%
Hangar Structures by Type				
	District 1		Statewide	
	Count	Percent	Count	Percent
T-Hangar	55	29%	359	28%
Corporate/Box	112	60%	709	55%
Community	14	7%	138	10%
Maintenance/MRO	6	3%	92	7%

Hangar Storage Counts				
	District 1		Statewide	
Hangar Structures	187		1,298	
Hangar Parking Spaces (estimated)	891		4,828	
Based Aircraft Not in Hangar	154		849	
Hangar Structure Condition (estimated)				
	District 1		Statewide	
	Count	Percent	Count	Percent
Failed Condition	1	1%	30	2%
Poor Condition	21	11%	164	13%
Good Condition	111	60%	733	57%
Excellent Condition	53	28%	368	28%
Existing Hangar Construction Timeframe				
	District 1		Statewide	
	Count	Percent	Count	Percent
pre-1940	1	0%	1	0%
1940-1949	1	1%	13	1%
1950-1959	0	0%	14	1%
1960-1969	7	4%	47	4%
1970-1979	15	8%	144	11%
1980-1989	24	13%	193	15%
1990-1999	66	35%	315	24%
2000-2009	52	28%	296	23%
2010-2019	17	9%	158	12%
2020-present	4	2%	73	6%
Unknown	0	0%	44	3%

Source: Aviation, a Woolpert Company
 Note: Rounded totals may not sum.

District 2

Figure 1-3: GDOT District 2 Study Airports



CITY	COUNTY	FAA ID	AIRPORT NAME	BASED AIRCRAFT
Atlanta	Newton	CVC	Covington Municipal Airport	29
Augusta	Richmond	AGS	Augusta Regional Airport at Bush Field	18
Augusta	Richmond	DNL	Daniel Field Airport	54
Cochran	Bleckley	48A	Cochran Airport	22
Dublin	Laurens	DBN	W.H. "Bud" Barron Airport	25
Eastman	Dodge	EZM	Heart of Georgia Regional Airport	71
Greensboro	Greene	CPP	Greene County Regional Airport	21
Louisville	Jefferson	2J3	Louisville Municipal Airport	13
Madison	Morgan	52A	Madison Municipal Airport	17
Milledgeville	Baldwin	MLJ	Baldwin County Airport	30
Millen	Jenkins	2J5	Millen Airport	10
Sandersville	Washington	OKZ	Kaolin Field Airport	27
Soperton	Treutlen	4J8	Treutlen County Airport	0
Swainsboro	Emanuel	SBO	East Georgia Regional Airport	19
Thomson	Mc Duffie	HQU	Thomson-McDuffie County Airport	34
Washington	Wilkes	IYY	Washington-Wilkes County Airport	15
Waynesboro	Burke	BXG	Burke County Airport	13
Wrens	Jefferson	65J	Wrens Memorial Airport	3
GDOT DISTRICT 2 TOTAL				421

Source: Jviation, a Woolpert Company

Table 1-6 summarizes hangar inventory results for GDOT District 2, and **Figure 1-3** shows District 2 airports. This table compares summary results for the district to similar statewide results. This comparison shows some slight variances, but no significant differences between district and statewide survey results. A lower percentage of hangar structures in District 2 are airport owned, as opposed to owned by other entities. Statewide, it is estimated that 85 percent of all based aircraft are stored in hangars. In District 2, the percentage of based aircraft, now stored in a hangar space, is slightly higher at almost 90 percent. District 2 also is above the statewide average in terms of its percentage of hangar structures reported to be in excellent condition.

Table 1-6: Summary of Hangar Information GDOT District 2

District 2				
Hangar Ownership				
	District 2		Statewide	
	Count	Percent	Count	Percent
Hangar Structures Owned by Airports	52	33%	603	46%
Hangar Structures Owned by Others	106	67%	695	54%

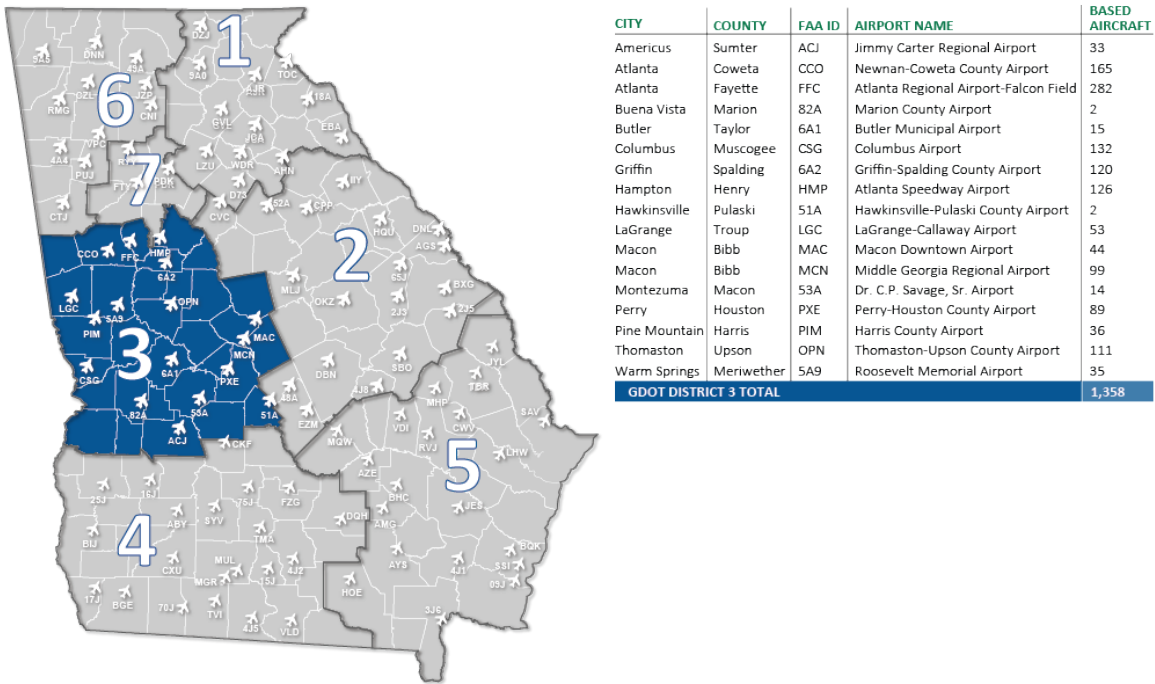
Hangar Structures by Type				
	District 2		Statewide	
	Count	Percent	Count	Percent
T-Hangar	30	19%	359	28%
Corporate/Box	102	65%	709	55%
Community	18	11%	138	10%
Maintenance/MRO	8	5%	92	7%
Hangar Storage Counts				
	District 2		Statewide	
Hangar Structures		158		1,298
Hangar Parking Spaces (estimated)		406		4,828
Based Aircraft Not in Hangar		51		849
Hangar Structure Condition (estimated)				
	District 2		Statewide	
	Count	Percent	Count	Percent
Failed Condition	1	1%	30	2%
Poor Condition	12	8%	164	13%
Good Condition	85	54%	733	57%
Excellent Condition	60	38%	368	28%
Existing Hangar Construction Timeframe				
	District 2		Statewide	
	Count	Percent	Count	Percent
pre-1940	0	0%	1	0%
1940-1949	0	0%	13	1%
1950-1959	3	2%	14	1%
1960-1969	2	1%	47	4%
1970-1979	10	6%	144	11%
1980-1989	35	22%	193	15%
1990-1999	32	20%	315	24%
2000-2009	39	25%	296	23%
2010-2019	30	19%	158	12%
2020-present	7	4%	73	6%
Unknown	0	0%	44	3%

Source: Aviation, a Woolpert Company

Note: Rounded totals may not sum.

District 3

Figure 1-4: GDOT District 3 Study Airports



Source: Jviation, a Woolpert Company

Table 1-7 summarizes hangar inventory results for GDOT District 3, and **Figure 1-4** shows the airports in District 3. This table compares summary results for the district to similar statewide results. This comparison does show some slight variances, but no significant differences between district and statewide survey results. District 3, when compared to statewide findings, does show a higher percentage of hangars whose construction timeframe is unknown. This may indicate that the district has a higher number of hangar structures whose useful life has expired.

Table 1-7: Summary of Hangar Information GDOT District 3

District 3				
Hangar Ownership				
	District 3		Statewide	
	Count	Percent	Count	Percent
Hangar Structures Owned by Airports	142	45%	603	46%
Hangar Structures Owned by Others	174	55%	695	54%

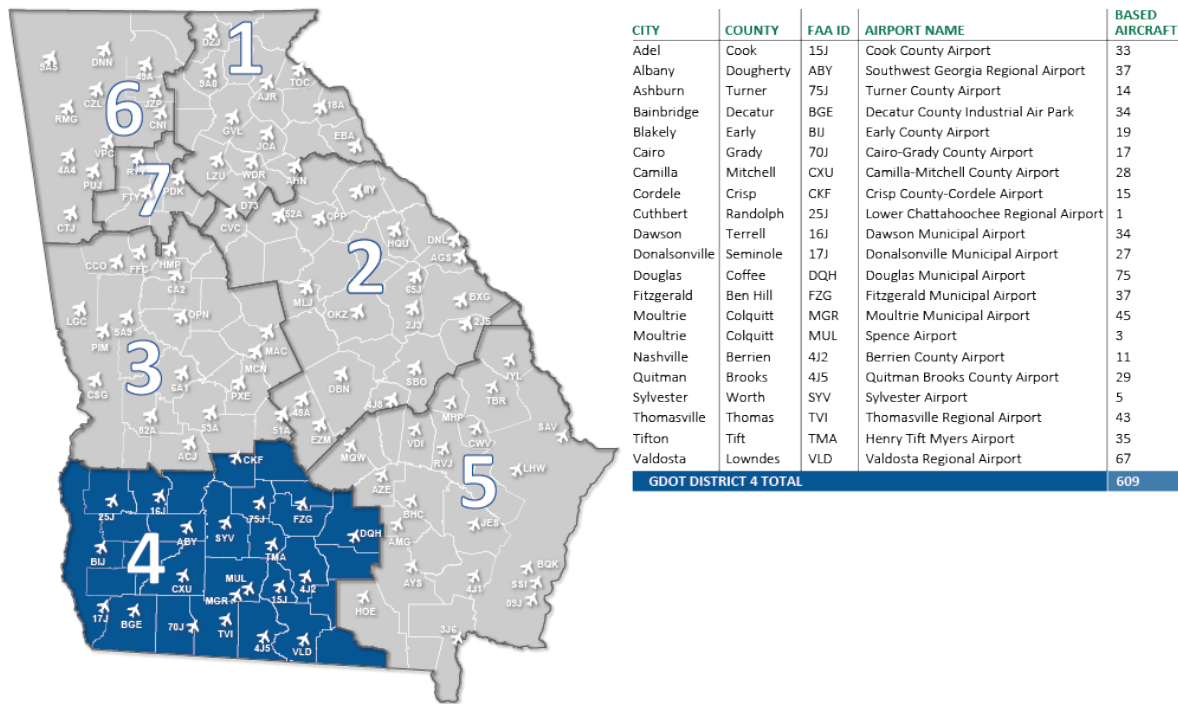
Hangar Structures by Type				
	District 3		Statewide	
	Count	Percent	Count	Percent
T-Hangar	82	26%	359	28%
Corporate/Box	154	49%	709	55%
Community	47	15%	138	10%
Maintenance/MRO	33	10%	92	7%
Hangar Storage Counts				
	District 3		Statewide	
Hangar Structures	316		1,298	
Hangar Parking Spaces (estimated)	1,163		4,828	
Based Aircraft Not in Hangar	191		849	
Hangar Structure Condition (estimated)				
	District 3		Statewide	
	Count	Percent	Count	Percent
Failed Condition	6	2%	30	2%
Poor Condition	48	15%	164	13%
Good Condition	169	53%	733	57%
Excellent Condition	93	29%	368	28%
Existing Hangar Construction Timeframe				
	District 3		Statewide	
	Count	Percent	Count	Percent
pre-1940	0	0%	1	0%
1940-1949	3	1%	13	1%
1950-1959	0	0%	14	1%
1960-1969	6	2%	47	4%
1970-1979	31	10%	144	11%
1980-1989	38	12%	193	15%
1990-1999	82	26%	315	24%
2000-2009	69	22%	296	23%
2010-2019	29	9%	158	12%
2020-present	21	7%	73	6%
Unknown	37	12%	44	3%

Source: Aviation, a Woolpert Company

Note: Rounded totals may not sum.

District 4

Figure 1-5: GDOT District 4 Study Airports



Source: Jviation, a Woolpert Company

Table 1-8 summarizes hangar inventory results for GDOT District 4, and **Figure 1-5** shows the airports in this district. This table compares summary results for the district to similar statewide results. This comparison shows some variances. This district shows a much higher percentage of hangar structures that are airport owned, as opposed to owned by other entities. Statewide, it is estimated that 85 percent of all based aircraft are stored in hangars. In District 4, the percentage of based aircraft now stored in a hangar space is higher at 92 percent. Also, for this district, the percentages of hangar structures that are in failing or poor classifications is slightly greater. This district also has a higher percentage of hangar structures that were completed before 1990.

Table 1-8: Summary of Hangar Information GDOT District 4

District 4				
Hangar Ownership				
	District 4		Statewide	
	Count	Percent	Count	Percent
Hangar Structures Owned by Airports	115	70%	603	46%
Hangar Structures Owned by Others	49	30%	695	54%

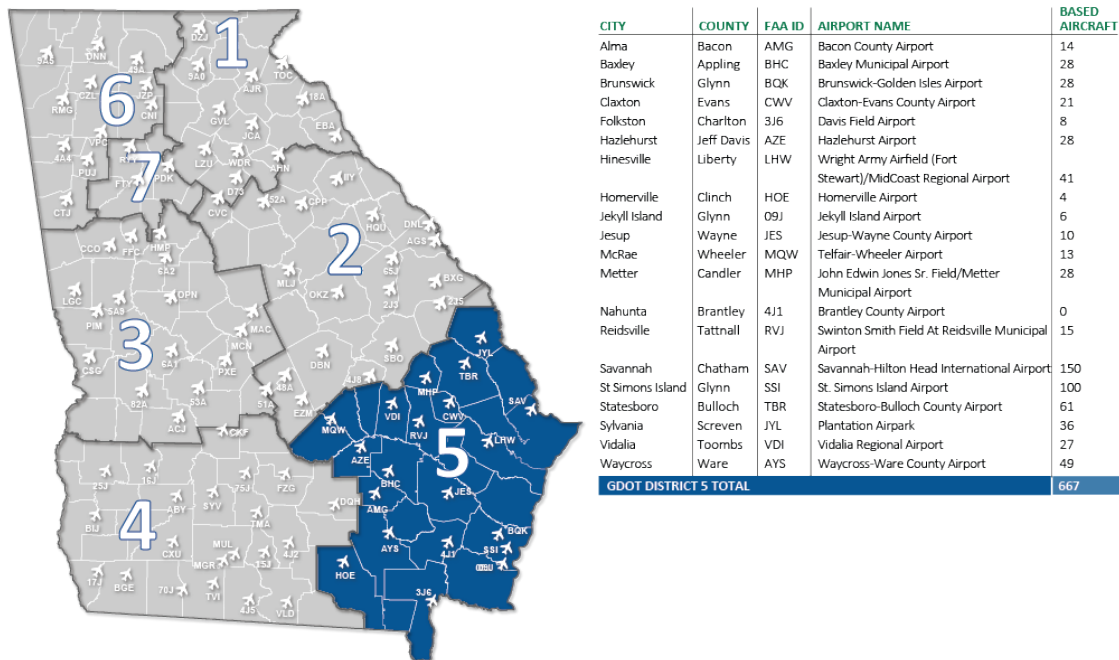
Hangar Structures by Type				
	District 4		Statewide	
	Count	Percent	Count	Percent
T-Hangar	49	30%	359	28%
Corporate/Box	88	54%	709	55%
Community	18	11%	138	10%
Maintenance/MRO	9	5%	92	7%
Hangar Storage Counts				
	District 4		Statewide	
	Count	Percent	Count	Percent
Hangar Structures	164		1,298	
Hangar Parking Spaces (estimated)	565		4,828	
Based Aircraft Not in Hangar	68		849	
Hangar Structure Condition (estimated)				
	District 4		Statewide	
	Count	Percent	Count	Percent
Failed Condition	5	3%	30	2%
Poor Condition	25	15%	164	13%
Good Condition	82	50%	733	57%
Excellent Condition	52	32%	368	28%
Existing Hangar Construction Timeframe				
	District 4		Statewide	
	Count	Percent	Count	Percent
pre-1940	0	0%	1	0%
1940-1949	7	4%	13	1%
1950-1959	1	1%	14	1%
1960-1969	11	7%	47	4%
1970-1979	24	15%	144	11%
1980-1989	31	19%	193	15%
1990-1999	28	17%	315	24%
2000-2009	25	15%	296	23%
2010-2019	29	18%	158	12%
2020-present	8	5%	73	6%
Unknown	0	0%	44	3%

Source: Aviation, a Woolpert Company

Note: Rounded totals may not sum.

District 5

Figure 1-6: GDOT District 5 Study Airports



Source: Jviation, a Woolpert Company

Table 1-9 summarizes hangar inventory results for GDOT District 5, and **Figure 1-6** shows the airports that are in District 5. This table compares summary results for the district to similar statewide results. This comparison shows some slight variances, but no significant differences between district and statewide survey results. A lower percentage of hangar structures in District 5 are airport owned, as opposed to a higher percentage owned by others. Inventory information for this district shows a higher percentage of corporate/box hangar structures and a higher percentage of maintenance/MRO hangar structures. At the same time, District 5, when compared to the statewide average, has a lower percentage of community hangar structures. Compared to the state average, the district has a higher percentage of hangar structures that are in good condition and a lower percentage of hangars ranked as being in excellent condition.

Table 1-9: Summary of Hangar Information GDOT District 5

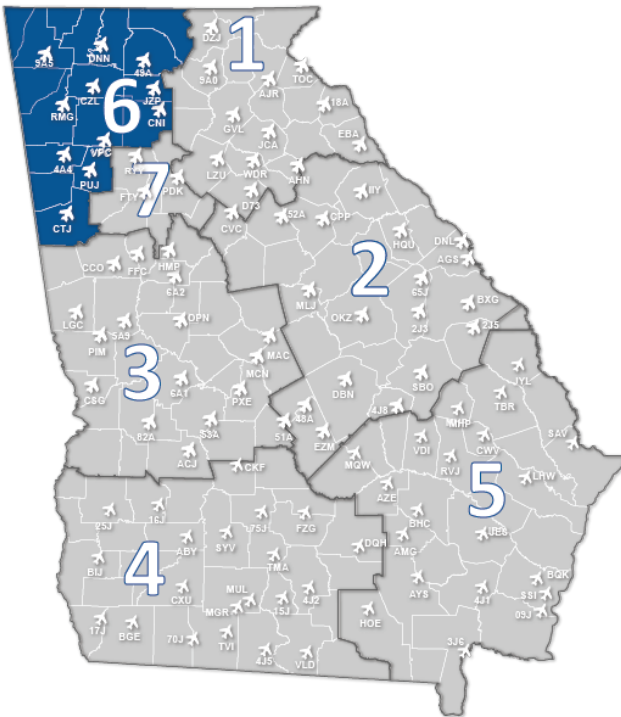
District 5				
Hangar Ownership				
	District 5		Statewide	
	Count	Percent	Count	Percent
Hangar Structures Owned by Airports	72	40%	603	46%
Hangar Structures Owned by Others	106	60%	695	54%
Hangar Structures by Type				
	District 5		Statewide	
	Count	Percent	Count	Percent
T-Hangar	45	25%	359	28%
Corporate/Box	108	61%	709	55%
Community	6	3%	138	10%
Maintenance/MRO	19	11%	92	7%
Hangar Storage Counts				
	District 5		Statewide	
Hangar Structures		178		1,298
Hangar Parking Spaces (estimated)		571		4,828
Based Aircraft Not in Hangar		61		849
Hangar Structure Condition (estimated)				
	District 5		Statewide	
	Count	Percent	Count	Percent
Failed Condition	3	2%	30	2%
Poor Condition	22	13%	164	13%
Good Condition	122	69%	733	57%
Excellent Condition	29	16%	368	28%
Existing Hangar Construction Timeframe				
	District 5		Statewide	
	Count	Percent	Count	Percent
pre-1940	0	0%	1	0%
1940-1949	0	0%	13	1%
1950-1959	8	4%	14	1%
1960-1969	8	4%	47	4%
1970-1979	19	11%	144	11%
1980-1989	37	21%	193	15%
1990-1999	27	15%	315	24%
2000-2009	44	25%	296	23%
2010-2019	20	11%	158	12%
2020-present	8	4%	73	6%
Unknown	7	4%	44	3%

Source: Jviation, a Woolpert Company

Note: Rounded totals may not sum.

District 6

Figure 1-7 : GDOT District 6 Study Airports



CITY	COUNTY	FAA ID	AIRPORT NAME	BASED AIRCRAFT
Atlanta	Paulding	PUJ	Paulding-Northwest Atlanta Airport	41
Calhoun	Gordon	CZL	Tom B. David Field Airport	123
Canton	Cherokee	CNI	Cherokee County Regional Airport	129
Carrlton	Carroll	CTJ	West Georgia Regional Airport-O. V. Gray Field	135
Cartersville	Bartow	VPC	Cartersville Airport	68
Cedartown	Polk	4A4	Polk County Airport-Cornelius Moore Field	63
Dalton	Whitfield	DNN	Dalton Municipal Airport	40
Ellijay	Gilmer	49A	Gilmer County Airport	17
Jasper	Pickens	JZP	Pickens County Airport	100
LaFayette	Walker	9A5	Barwick LaFayette Airport	42
Rome	Floyd	RMG	Richard B. Russell Regional Airport - J.H. Towers Field	80
GDOT DISTRICT 6 TOTAL				838

Source: Jviation, a Woolpert Company

Table 1-10 summarizes hangar inventory results for GDOT District 6, and **Figure 1-7** shows the airports in this district. This table compares summary results for the district to similar statewide results. This comparison shows some variances. A lower percentage of hangar structures in District 6 are airport owned, as opposed to the higher percentage owned by others. Inventory information for this district shows a higher percentage of T-hangar structures, when compared to the statewide average. The district has a percentage higher than the state average of hangar structures that are reported in good condition. When compared to statewide information, hangars in this district appear to have been constructed more recently. The percentage of recent hangar construction for this district is notably above the state’s percentage.

Table 1-10: Summary of Hangar Information GDOT District 6

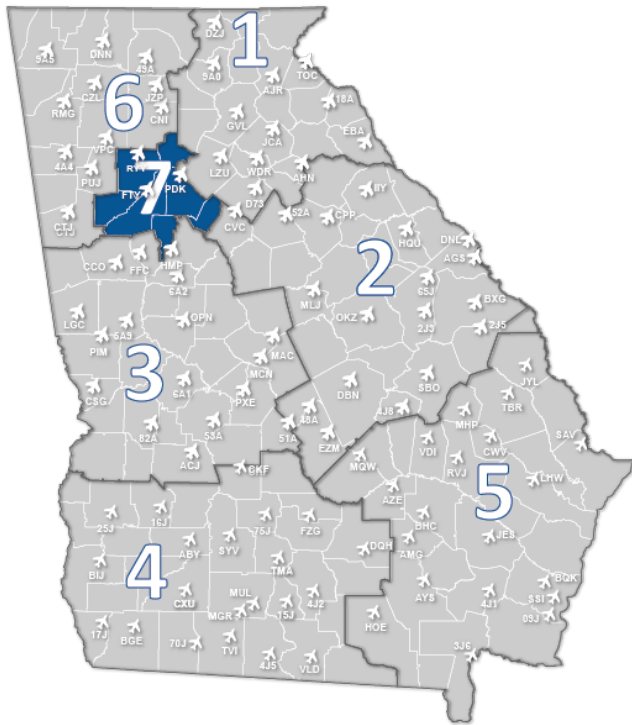
District 6				
Hangar Ownership				
	District 6		Statewide	
	Count	Percent	Count	Percent
Hangar Structures Owned by Airports	68	41%	603	46%
Hangar Structures Owned by Others	96	59%	695	54%
Hangar Structures by Type				
	District 6		Statewide	
	Count	Percent	Count	Percent
T-Hangar	63	38%	359	28%
Corporate/Box	81	49%	709	55%
Community	12	7%	138	10%
Maintenance/MRO	8	5%	92	7%
Hangar Storage Counts				
	District 6		Statewide	
Hangar Structures	164		1,298	
Hangar Parking Spaces (estimated)	724		4,828	
Based Aircraft Not in Hangar	89		849	
Hangar Structure Condition (estimated)				
	District 6		Statewide	
	Count	Percent	Count	Percent
Failed Condition	5	3%	30	2%
Poor Condition	4	2%	164	13%
Good Condition	108	66%	733	57%
Excellent Condition	47	29%	368	28%
Existing Hangar Construction Timeframe				
	District 6		Statewide	
	Count	Percent	Count	Percent
pre-1940	0	0%	1	0%
1940-1949	1	1%	13	1%
1950-1959	0	0%	14	1%
1960-1969	4	2%	47	4%
1970-1979	4	2%	144	11%
1980-1989	9	5%	193	15%
1990-1999	62	38%	315	24%
2000-2009	47	29%	296	23%
2010-2019	16	10%	158	12%
2020-present	21	13%	73	6%
Unknown	0	0%	44	3%

Source: Aviation, a Woolpert Company

Note: Rounded totals may not sum.

District 7

Figure 1-8 : GDOT District 7 Study Airports



CITY	COUNTY	FAA ID	AIRPORT NAME	BASED AIRCRAFT
Atlanta	Cobb	RYY	Cobb County International Airport-McCollum Field	365
Atlanta	De Kalb	PDK	DeKalb-Peachtree Airport	320
Atlanta	Fulton	FTY	Fulton County Executive Airport/Charlie Brown Field	96
GDOT DISTRICT 7 TOTAL				781

Source: Jviation, a Woolpert Company

Table 1-11 summarizes hangar inventory results for GDOT District 7, and **Figure 1-8** shows the airports in District 7. This table compares summary results for the district to similar statewide results. This comparison does show some variances. A lower percentage of hangar structures in District 7 are airport owned, as opposed to the higher percentage reported for hangars owned by others. When compared to statewide percentages, the percentage of corporate/box and community hangars for District 7 show some variance. Statewide, the percentage of aircraft currently stored in hangars averages at least 85 percent, and for some districts, this percentage is higher. For District 7, only 65 percent of the district’s-based aircraft are currently reported as stored in hangars. District 7 also has, when compared to the state’s percentage, a higher percentage of hangar structures that are reported as being in failed condition. The state average for this indicator is only two percent, and this district reports seven percent. This district also has a comparatively higher percentage of hangar structures reported as being in poor condition. This district shows a much higher percentage of its hangar structures being constructed between 1970-1979, compared to similar information for the state.

Table 1-11: Summary of Hangar Information GDOT District 7

District 7				
Hangar Ownership				
	District 7		Statewide	
	Count	Percent	Count	Percent
Hangar Structures Owned by Airports	49	37%	603	46%
Hangar Structures Owned by Others	82	63%	695	54%
Hangar Structures by Type				
	District 7		Statewide	
	Count	Percent	Count	Percent
T-Hangar	35	27%	359	28%
Corporate/Box	64	49%	709	55%
Community	23	18%	138	10%
Maintenance/MRO	9	7%	92	7%
Hangar Storage Counts				
	District 7		Statewide	
Hangar Structures	131		1,298	
Hangar Parking Spaces (estimated)	508		4,828	
Based Aircraft Not in Hangar	235		849	
Hangar Structure Condition (estimated)				
	District 7		Statewide	
	Count	Percent	Count	Percent
Failed Condition	9	7%	30	2%
Poor Condition	32	24%	164	13%
Good Condition	56	43%	733	57%
Excellent Condition	34	26%	368	28%
Existing Hangar Construction Timeframe				
	District 7		Statewide	
	Count	Percent	Count	Percent
pre-1940	0	0%	1	0%
1940-1949	1	1%	13	1%
1950-1959	2	2%	14	1%
1960-1969	9	7%	47	4%
1970-1979	41	31%	144	11%
1980-1989	19	15%	193	15%
1990-1999	18	14%	315	24%
2000-2009	20	15%	296	23%
2010-2019	17	13%	158	12%
2020-present	4	3%	73	6%
Unknown	0	0%	44	3%

Source: Aviation, a Woolpert Company

Note: Rounded totals may not sum.

Disaggregating survey findings to the district level helps to provide further insight into results from the statewide hangar inventory effort. As subsequent steps in this analysis are undertaken to determine Georgia's needs for additional aircraft storage, information shown for each of the GDOT Districts will help to support the study analysis.

1.4 Section 1 Summary

The comprehensive survey effort that supported the hangar inventory provided a wealth of information on the current hangar storage at the 102 study airports. This section summarized information for the state within each GDOT District. The information collected reflects a snapshot of conditions that characterized study airports at the time data collection took place. Most findings from the survey generally reflect conditions at study airports that existed in the fall of 2023. Information collected as part of the survey/outreach effort supports the next step in the study which focuses on hangar development needs.

The inventory/data collection effort yielded the following information:

- The “unfiltered” statewide hangar waiting list contains 2,397 entries; initial review of waiting list entries show many out of date and duplicate entries. Only eight percent of study airports require a deposit to be on their hangar waiting list. A review of current waiting lists, collected as part of this study, reveals that airports often do not collect information on the aircraft N number and frequently do not collect complete contact information for each entrant. The degree of incomplete data on current Georgia airport hangar waiting lists challenges the state's ability to accurately identify needs for additional hangar storage. Information on developing and maintaining hangar waiting lists is contained in the best practices guide which is a companion to this report available through GDOT.
- Among all hangar structures in Georgia, 46 percent are owned by airports and the remaining 54 percent are owned by private entities. As construction costs have increased, it has become an increasing challenge for airports to construct hangars and to charge rents that enable them to amortize development costs. A companion effort to this study determines if and how other states are assisting airports with hangar development. **Appendix A** presents information on this outreach.
- Statewide, 1,298 hangar structures were identified at 102 study airports. Of this total, 55 percent of all structures are identified as corporate/box hangars. Depending on hangar ownership, user preferences, aircraft wingspans, and other factors, corporate/box hangars typically accommodate one or two planes.
- The hangar structures exhibit a wide range of current conditions; 85 percent of all structures are currently reported as being in either good or excellent condition. For the other structures, 13 percent are reported as being in poor condition and two percent of the existing structures are reported as failed. Costs to replace failed aircraft storage hangars are developed as part of this study.
- The survey collected information on the estimated construction year for each hangar structure. Results show that 41 percent of all hangars are thought to have been constructed in the past 23 years. As part of this effort, GDOT now has information that shows the estimated construction year for each hangar structure in the state. This information is important as it enables GDOT to monitor which hangar structures may need to be replaced

in the coming years. The useful life of hangars is extended when they are well-maintained. The companion best practices guide provides guidance on hangar maintenance to preserve investment and to extend the useful life of hangars throughout the state.

- FAA data reports a total of 5,654 based aircraft at the 102 study airports. Interviews with airport representatives indicate that currently there are 849 based aircraft that are not stored in a hangar. Data collection also indicates that there are an estimated 4,828 hangar parking spaces at all study airports. This information indicates that, statewide, an estimated 85 percent of all based aircraft statewide are currently stored in a hangar. This information provides context for the next step in the study which estimates Georgia's current unmet demand for hangar storage.

The next steps in the Statewide Hangar Inventory and Demand Analysis estimates current demand for hangar storage and provides estimates of investment to close the demand gap.

2. Process to Identify Demand for Additional Hangar Storage

The next step in Georgia’s Statewide Hangar Inventory and Demand Analysis is to estimate the number of aircraft owners currently desiring hangar storage at one of the study airports. Demand for additional hangar storage comes from different sources. Aircraft currently based at a study airport that are on a hangar waiting list, and non-based aircraft that are also on a hangar waiting list. A smaller percentage of the aircraft waiting for hangar storage is comprised of aircraft owners planning to purchase new aircraft. The objective of this part of the analysis is to estimate current demand for additional hangar storage and then to identify how many spaces are needed to address the current hangar demand “gap.”

2.1 Review Statewide Hangar Waiting List

As part of this study, hangar waiting lists were requested from each of the study airports. All 102 study airports responded to this request. There are 17 airports that report they do not currently have any aircraft owners on a hangar waiting list, while the remaining airports reported a combined total number of entrants on the “unfiltered” statewide hangar waiting list of 2,397 aircraft owners.

Hangar waiting lists, for all study airports, currently have no consistency in terms of reported information on the owners or aircraft waiting for a hangar space. This study’s survey findings indicate that only 8 percent of all study airports have a required deposit fee for an owner to place their name on a hangar waiting list. This results in many aircraft owners being on multiple hangar waiting lists. Twenty-six (26) of the study airports submitted a waiting list with no identifying information for the owners or the aircraft on their waitlist. A best practices guide, available from GDOT, provides guidelines on how to create, maintain, and update hangar waiting lists.

Given data constraints, determining the validity of entrants on the existing statewide unfiltered hangar waiting lists presents a challenge. Several things about the unfiltered statewide hangar waiting list are readily apparent. This includes the fact that the current unfiltered statewide waiting list has numerous duplicates. Often aircraft owners put their names on waiting lists at multiple airports in a geographic area. The owner plans to take the first hangar that becomes available. When only 8 percent of all study airports have a fee for an owner to be on their hangar waiting list, this results in many hangar waiting lists that are rife with duplications.

Only 22 percent of all study airports report that they have a written policy governing the management of their hangar waiting list. Review of the unfiltered statewide list shows that many of the entries are most likely out of date. Waiting lists that are out of date or that contain owners no longer seeking hangar storage are a direct result of the lack of airport policies to review and update waiting lists on regular intervals.

Review of the unfiltered statewide waiting list and input from airport representatives both indicate that a notable percentage of the aircraft on the current statewide hangar waiting list are aircraft that are already based at a study airport. These aircraft are primarily parked on a tie-down, but some aircraft may also currently be stored in a hangar. For undetermined reasons, these owners are seeking a new hangar space. Sufficient information is not available to identify the reasons that existing hangar occupants are seeking a new hangar. Anecdotal information, however, indicates that there appears to be a trend for aircraft owners to move away from hangars they share with other owners; this has to do with security and aircraft protection concerns.

Statewide there are currently 849 based aircraft at the 102 study airports reported as being unhangared; these planes make up a notable percentage of the aircraft on the unfiltered statewide hangar waiting list. These aircraft are most often currently parked on a tie-down. As defined by the FAA, a based aircraft is one that spends the majority of the year at that particular airport.

To further vet the unfiltered statewide hangar waiting list, addresses for entrants on the waiting lists were reviewed. Approximately 25 percent of all entries on the unfiltered statewide hangar waiting list have at least a partial address. This information also helps to confirm that a notable percentage of the aircraft on the current statewide hangar waiting list are aircraft that are already based at a study airport.

Among the 102 study airports, the validity of individual airport hangar waiting lists varies. Based on available data, an estimated 59 percent of all entries on the unfiltered statewide hangar list appear to be valid entries. Reviewing available information, 34 percent of all entries on the unfiltered statewide hangar waiting list appear to be aircraft already based at a study airport that are seeking a hangar space. An additional 25 percent of all entries on the unfiltered statewide hangar waiting list also appear valid (for a total of 59 percent). This additional 25 percent includes owners that are:

- Businesses or individuals interested in moving their plane(s) to Georgia from another state.
- Businesses or individuals who are planning to purchase a new plane(s) and base it at a study airport.
- Aircraft owners who are seasonal or second homeowners in Georgia who are seeking a hangar to use while they are in the state.
- Aircraft owners at privately-owned airports in Georgia that are seeking hangar space at a publicly owned study airport.

The remaining 41 percent of the entries on the unfiltered statewide hangar waiting list are duplicates, out-of-date, or owners no longer seeking a storage space at one of the study airports. The results of the statewide hangar waiting list review reflect additional hangar spaces are needed to close the current “gap” for storage demand at the study airports. Statewide, it is estimated that currently there are 1,405 aircraft owners seeking a hangar space at a study airport.

2.2 Unhangared Based Aircraft at Study Airports

The number/percent of based aircraft not currently stored in a hangar space varies by study airport. As noted, it is estimated that 15 percent (849 planes) of all statewide based aircraft (5,564) are not currently stored in a hangar. These aircraft are most often parked on paved outdoor tie-downs.

Many Georgia airports confirm that a notable percentage of their based aircraft owners desire hangar storage. This includes aircraft owners throughout the state that are currently parked on a tie-down. There will, however, always be at least a small percentage of all based aircraft owners that prefer tie-down parking to hangar storage. Most often, this preference is based on the cost differential between hangar and tie-down rental rates. Using input from Georgia airports, trends observed by the consultant team in other states, and input from Aircraft Owners and Pilots Association (AOPA), it was determined that an estimated 95 percent of Georgia’s based aircraft owners would prefer hangar storage, assuming a space is available. This assumption is a key driver used to estimate Georgia’s additional hangar storage demand.

2.3 Additional Wait List Demand for Hangar Storage

Data for each of the individual study airports is examined to develop a bottom-up estimate of Georgia’s additional hangar storage demand. As part of this analysis, additional spaces needed to fill the gap between current hangar storage capabilities and additional demand are estimated.

It is important to note that this is an “unconstrained” analysis for additional hangar storage space. Planned hangar development is identified using each airport’s most current airport layout plan (ALP) on file with GDOT.

Table 2-1 summarizes estimated demand for additional hangar storage by GDOT District. As noted, the demand for additional hangar storage is driven by two factors. One factor is based aircraft on hangar waiting lists that are currently parked on a tie-down at a study airport. The other factor is aircraft owners on hangar waiting lists that are currently based or stored elsewhere. Many of these entries are owners wishing to move their aircraft from another state. Information in this table reflects hangar storage spaces, by district, that are estimated to be needed to address Georgia’s current demand gap for hangar storage, at this time. These are almost exclusively smaller airports in the state that reported they currently have no entries on their hangar waiting list.

Table 2-1: Additional Statewide Demand for Hangar Storage Spaces

	Unhangared Based Aircraft Desiring Storage	Additional Wait List Demand	Total Hangar Storage Demand (Spaces)
District 1	148	128	276
District 2	48	63	112
District 3	180	70	251
District 4	62	24	86
District 5	57	142	199
District 6	85	160	245
District 7	223	13	236
Statewide	804	599	1405

Source: Study analysis of airport hangar waiting lists

It is worth noting that during this study’s survey efforts some representatives at airports in the Atlanta Metro Area reported that they “cap” the number of aircraft they have on their hangar waiting list. This practice may result in lower hangar demand being reported for some airports in this area and may result in individuals joining a hangar waiting list at a different airport or GDOT District.

Based on study analysis, a list of airports with the highest demand for additional hangar storage, on a statewide basis, is shown below. The relative demand for hangar storage, as reflected in the list below, considers the total number of square feet in hangar storage that is estimated by this analysis as being needed to address the current demand gap at each of these study airports.

- RYY: Cobb County International Airport-McCollum Field
- PDK: DeKalb-Peachtree Airport
- FFC: Atlanta Regional Airport-Falcon Field
- GVL: Lee Gilmer Memorial Airport
- CCO: Newnan-Coweta County Airport

- PUJ: Paulding-Northwest Atlanta Airport
- SSI: St. Simons Island Airport
- LHW: Wright Army Airfield (Fort Stewart)/MidCoast Regional Airport
- LZU: Gwinnett County Airport-Briscoe Field
- AGS: Augusta Regional Airport at Bush Field
- CNI: Cherokee County Regional Airport
- VPC: Cartersville Airport
- WDR: Barrow County Airport
- SAV: Savannah-Hilton Head International Airport
- JZP: Pickens County Airport
- HMP: Atlanta Speedway Airport

2.4 Process to Determine Hangar Types

To identify additional hangar parking spaces, one input is derived from a review of each airport’s most current ALP. The type of hangar, to address the demand gap, is important to estimating development costs. In addition, to ALP review, the based aircraft fleet mix for each airport is considered. Fleet mix considerations include the current based aircraft fleet for each airport, obtained from FAA Form 5010. In addition, information from FAA’s National Aerospace Forecast on expected changes in the nation’s general aviation fleet is considered. FAA expects single-engine aircraft to decline as a percentage of the total U.S. fleet, while larger turboprop and jet aircraft are predicted to make up a higher percentage of the general aviation fleet. Providing context for the type of plane to be stored helps to inform the most appropriate type of hangar structure to meet the identified demand gap for each airport.

The process to estimate development costs for additional hangar spaces is discussed in the next section of this report. Demand for additional hangar spaces is divided into two types, T-hangars and conventional hangars. In this exercise, conventional hangars include corporate/box hangars that often store only one plane and community hangars that are more apt to accommodate multiple aircraft owners. The number of spaces in each category is determined by planned types/categories of hangars as depicted on current airport ALPs.

Table 2-1 summarized total storage spaces needed to close the current demand gap in each GDOT District. **Table 2-2** reflects the number of assumed T-hangar units (one plane per unit) and the number of conventional hangar structures needed to address current unmet demand. The number of conventional hangar structures depicted in this table is generally consistent with planned development, as per current ALPs. The size of the conventional hangar structures, reported in **Table 2-2**, varies significantly in accordance with planned hangar development as per various ALPs. In the next phase of the analysis for the Statewide Hangar Inventory and Demand Analysis, the actual size (total square footage) of the conventional hangars depicted on ALPs for study airports is used to support the development of cost estimates.

Table 2-2: Statewide Estimated Storage Structures to Address Demand Gap

	Number of T-hangar Units	Number of Conventional Hangar Structures
District 1	148	104
District 2	91	16
District 3	158	118
District 4	80	6
District 5	98	91
District 6	173	67
District 7	0	232
Statewide	748	634

Source: Study analysis and current ALP planned hangar development

Information presented in **Table 2-2** considers the total number of aircraft owners seeking a hangar space, assumptions on the fleet mix/type of plane the owner is seeking hangar storage for, and planned development by hangar type as reflected in each airport’s current ALP. Based on these three inputs, the type of planned hangar best suited to addressing the identified demand gap was selected and used to support subsequent cost estimating. Table 2-2 reflects the number of assumed T-hangar units (one plane per space) and the number of conventional hangar structures needed to address the demand gap. Conventional hangar structures depicted in this table are generally consistent with planned ALP development. The size of the conventional hangar structures, reported in **Table 2-2**, varies significantly in accordance with planned hangar development as per various ALPs. In the next phase of this analysis, the actual size (total square footage) of the conventional hangars depicted on ALPs for study airports is used to support the development of cost estimates. Hangar structures identified in the **Table 2-2** have already been reported as part of the statewide need, these are not additional structures.

This section has identified additional hangar storage spaces needed to close the current demand gap in Georgia. Types of hangar structures to fill the gap are also identified. This information supports the next part of the analysis which identifies cost estimates associated with addressing the identified gap for hangar storage.

3. Potential Costs to Address Demand Gap

As per recent hangar development cost data obtained from GDOT, costs to build aircraft hangars are escalating. In part, rising costs may be a factor contributing to hangar shortages. Using demand estimates and hangar storage types discussed in the previous section, this section provides cost estimates associated with addressing current demand for hangar storage at the study airports that is not presently being met.

3.1 Considerations for Aircraft Hangar Development

Once demand for additional hangar storage is identified, the process to address the demand, by constructing new hangars, can be lengthy. One of the first steps is to ensure that proposed hangars are shown on the airport's current FAA/GDOT approved Airport Layout Plan (ALP). If proposed hangar development is not shown, a revision/update to the ALP may be required.

There are many complexities that airports must address when implementing hangar development. These complexities must be considered whether the airport or a third party is developing the hangar facilities. Considerations include:

- Determining if there are permitting, building standards, zoning, or environmental regulations that must be met in relationship to hangar development.
- Deciding if the airport will own/develop the hangars or select a third-party developer.
- Identifying site preparation steps and costs.
- Establishing a viable plan for justification and funding.
- Setting fair and balanced lease terms if hangars are privately developed.
- Determining what approvals are necessary to support development.
- Undertaking design and engineering of hangar structures.
- Securing necessary approvals in relationship to local building and fire codes.

The process to bring new hangars online and to have the hangars ready for occupancy can be lengthy. Often this process can take several years. This context is important for setting expectations as they relate to closing the gap in existing demand for aircraft storage in Georgia.

Information to support cost estimates, discussed in this section, was secured by reviewing costs from actual hangar construction projects for Georgia airports. This information was supplied by GDOT and study airports. Costs for hangar projects over the past eight years were reviewed. To estimate hangar development costs, however, only costs over the past three years were used to form the basis for estimating costs to address the demand gap. It is worth noting that costs used in this analysis primarily consider only the hangar structure. Costs reported by this analysis are not airport/site specific. Further, depending on each airport's individual situation, additional development costs are likely. Added costs may include permitting, site preparation, grading/fill, aprons, taxiways, and/or utilities. Cost estimates, provided as part of this analysis, provide a general frame of reference for costs that would be incurred to provide additional hangars needed to address Georgia's current gap in demand.

3.2 Funding for Hangar Development

In Georgia, the landscape for funding aircraft hangar construction at general aviation airports consists of limited federal funding through FAA's Airport Improvement Program (AIP), state matching funds for FAA

funded projects, local funds, and private investment. The FAA allows airport sponsors at general aviation airports to utilize their AIP non-primary entitlement funds in the amount of \$150,000 annually, which may be saved for a period not to exceed three additional years totaling \$600,000, to fund hangar construction. Use of these funds is contingent upon the sponsor's certification that all airfield needs have been accommodated and that airside needs within the next three years will be funded locally or with FAA non-primary entitlement funds. Given these conditions, it is only on rare occasions that airports are able to use non-primary entitlement funds for hangar development.

GDOT currently provides state matching funds for FAA AIP grants as outlined in its *Airport Aid Program Policies and Standards Guide*. State funding provides 50 percent of the non-federal share for federally funded hangar construction projects. The amount of state funding is typically a 5 percent share of the total project cost, which is combined with a 90 percent federal share and a 5 percent local share. While the State Airport Aid Program provides 75 percent state funding combined with a 25 percent local match for eligible projects that do not receive federal funding. Revenue producing projects, including hangar projects, are not currently eligible for funding under this program due to limited funding and using state funds for safety related projects.

Due to eligibility constraints and limited amounts of federal and state funding, the majority of all hangar construction projects are funded locally by airport sponsors or private developers. Airport sponsors currently use airport revenues, general fund appropriations, or loans. In addition, special voter approved taxing programs including Special Purpose Local Option Sales Tax (SPLOST) or single county or regional Transportation Special Purpose Local Option Sales Tax (TSPLOST), which both fall under the umbrella of the Transportation Investment Act (TIA) tax, can be used to fund hangar development.

Airport sponsors also use partnerships with private developers for hangar construction. This provides revenue generating opportunities for the airport through a ground lease with the developer. This approach does not require the airport to take on significant debt to accomplish hangar development, but it does limit revenue, as the airport receives less revenue from a ground lease than it does from the rental of a hangar owned by the airport.

The biggest obstacle for Georgia airports, to close the gap between demand and the availability of hangar storage, is funding. Lack of funding for hangar development is an issue that is not unique to Georgia. **Appendix A** to this document identifies policies and practices in other states as they relate to hangar funding. Information in this appendix may be useful as Georgia contemplates options on how to address hangar shortfalls.

3.2.1 Airport Considerations for Funding Sources

Given the unique characteristics of Georgia's 102 study airports along with their vast differences - from rural airports with less than 10 based aircraft to Metro Area airports with more than 250 based aircraft – it is evident there is no single funding solution to address the hangar funding challenge. **Table 3-1** provides a summary of potential sources for funding hangar development. As this table reflects, the size of the airport impacts which hangar funding sources are most applicable. For this comparison, roles for each Georgia airport as defined by the FAA in the National Plan of Integrated Airport Systems (NPIAS) are the basis for possible funding sources. **Table 3-2** presents current NPIAS roles for each Georgia airport.

Table 3-1: Summary and Applicability of Hangar Funding Sources by Airport NPIAS Role

NPIAS CLASSIFICATION*	NON-NPIAS	UNCLASSIFIED NPIAS	NPIAS BASIC	NPIAS LOCAL	NPIAS REGIONAL	NPIAS NATIONAL	PRIMARY (COMMERCIAL)
Based Aircraft per NPIAS Guidelines	-	<10	10+	15+	100+	250+	18-150*
Georgia Airports in each Category	6	6	13	44	22	4	7
FUNDING SOURCES							
FAA Funding with State Match	Red	Red	Yellow	Yellow	Yellow	Yellow	Yellow
State Loan Programs	Red	Red	Red	Red	Red	Red	Red
State Grant Programs	Red	Red	Red	Red	Red	Red	Red
Local Funding Revenues	Green	Green	Green	Green	Green	Green	Green
Local Bonds	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Local Taxing - SPLOST/TSPLOST	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Private Sector	Green	Green	Green	Green	Green	Green	Green

* National Plan of Integrated Airport Systems (NPIAS); based aircraft at Georgia's primary airports range from a low of 18 to a high of 150.

- FUNDING SOURCE CURRENTLY EXCLUDES ELIGIBILITY OR IS NOT AVAILABLE IN GEORGIA FOR HANGAR DEVELOPMENT
- FUNDING SOURCE AVAILABLE FOR HANGAR DEVELOPMENT BUT SOURCES HAVE CONSTRAINTS
- FUNDING SOURCE FOR HANGAR DEVELOPMENT

As with all transportation infrastructure, it will require a comprehensive funding approach to address development needed to close the current gap in demand for hangar storage. **Table 3-1** shows funding options that may be available to address the need for additional hangar storage. The following summary discusses an array of considerations (**Table 3-1**) that apply to funding options that may be available to help address the need for additional hangar storage.

The classifications in **Table 3-2** denote the airport role for study airports as included in the FAA's National Plan of Integrated Airport Systems (NPIAS).

Six airports in Georgia's system currently do not meet FAA's criteria for inclusion in the NPIAS and are not eligible to receive FAA funding (see the second column, "Non-NPIAS," in **Table 3-1**). This group includes Buena Vista-Marion County Airport, Dahlonega-Lumpkin County-Wimpy's Airport, Folkston-Davis Field, Hawkinsville-Pulaski County Airport, Moultrie-Spence Field, and Soperton-Treutlen County Airport. Additionally, six other airports in Georgia's system are identified in the FAA's NPIAS as Unclassified and are not eligible for federal funding. See the third column, "Unclassified NPAIS," in **Table 3-1**). This group includes Cuthbert-Lower Chattahoochee Regional Airport, Homerville Airport, Jekyll Island Airport, Nahunta-Brantley County Airport, Sylvester Airport, and Wrens Memorial Airport. These airports receive very limited FAA funding, but they are eligible for state funding.

Columns four through seven in **Table 3-1**, related to the role each airport plays in the NPAIS, are classified as Basic, Local, Regional, and National. These classifications are established, in part, by the number of based aircraft at each airport which helps to separate NPIAS airports by activity level. The Primary or Commercial airports (last column) relate to airports having commercial airline service. Other airport classifications within NPIAS do not have such service. Rows in **Table 3-1**, shown as Funding Sources, relate to current and potential funding sources identified by study research in other states.

Federal Funding: For most eligible general aviation airports, funding is restricted to the airport’s annual non-primary entitlement of \$150,000, which may be saved for a period of three additional years not to exceed a total of \$600,000. Before an eligible airport can use their entitlement funding for hangar development, the sponsor must certify all airfield needs have been addressed. The sponsor must also commit that all airside needs within the next three years can be funded locally or with non-primary entitlement funds capped at \$150,000 annually. The exception to this is for safety projects that unexpectedly arise and were not foreseeable. Based on typical infrastructure needs to meet safety and capacity requirements, it is challenging for most airports to achieve eligibility to use their non-primary entitlement funds to support hangar development.

State Loan Programs: This funding source is not currently available to Georgia airports. Should a program be considered, a state-sponsored loan program should include adequate repayment terms so that the loan can be reasonably amortized utilizing revenues generated from hangar rental fees. Considering information from other similar programs that exist in other states, prerequisites for eligibility for such a program should stipulate that airport sponsors implement best practice hangar waiting list policies, that airports charge hangar rental fees based on a fair market valuation, and that airport sponsors utilize best-practice terms and conditions within their respective hangar rental agreements. Loan programs have been successful in at least 15 other states as these programs accelerate project schedules, support opportunities for economic development, and leverage other federal and local funding sources.

State Grant Programs: This funding is not currently available to Georgia airports. Considerations for hangar eligibility for state grants to airports would need to carefully prioritize hangar funding so that this type of funding is subordinate to funding for safety, capacity, and capital maintenance projects. At present, amounts in the Georgia State Airport Aid Program are insufficient to address annual applications for safety, capacity, and capital maintenance projects. Any established parameters for an airport to qualify for a state loan program should also be a prerequisite for a state grant program.

Local Funding: Options for local funding include the use of airport revenues and/or airport sponsor general funds. Limitations include the availability of local funding. Currently, 70 percent of Georgia’s airports statewide have fewer than 50 based aircraft which is generally the number required to provide airports with a positive cash flow.

Local Bonds: General obligation and revenue bonds can be a financing consideration for hangars. General obligation bonds require a voter referendum and are backed by the credit and taxing authority of the issuing jurisdiction. Revenue bonds do not require a referendum and are repaid with project revenues. In this case, revenues from hangar rental fees. Bonding, as a source of funding for smaller hangar development projects, has additional cost considerations. There are cost considerations related to insurance and higher interest rates that are drawbacks for using this source of funding for development projects that are lower in terms of their magnitude of cost.

Local SPLOST/TSPLOST – SPLOST must be authorized by a County Board of Commissioners and requires a voter referendum. Among all Georgia airports, 33 percent are owned by municipalities which can share in SPLOST revenues but are not able to initiate the process. TSPLOST requires a majority of the counties in a Regional Commission boundary to pass a resolution to initiate this process and a voter referendum. Municipalities cannot initiate the TSPLOST process. The duration of an approved SPLOST or TSPLOST is five and 10 years, respectively. The timing of these local and regional initiatives may or may not be

suitable to the more immediate needs associated with advancing hangar development in Georgia to meet the current demand gap.

Private Sector - A suitable rate of return on hangar investment must be attainable in order to attract private sector investment. T-hangars most often fail to provide revenues sufficient to cover construction costs, commercial loan fees and interest, land leases, maintenance and operational costs, local taxes, and profit, unless there is a secondary commercial/revenue benefit such as fuel sales or commercial use of the hangar. Current study data reveals that 25 percent of all existing T-hangars and 75 percent of all corporate hangars at Georgia airports are privately-owned. Based on financial feasibility, corporate hangar development rather than T-hangars will be more likely to benefit from private sector investment. When hangars are privately owned, the developer leases the land from the airport. In most cases, at the end of the lease term (20 to 30 years), the ownership of the structure reverts to the airport. In some cases, these reversionary clauses may be a deterrent to private funding for hangar development.

Table 3-2: Georgia Study Airports and NPIAS Roles

City	Airport	FAA ID	Ownership	Service Level	Hub Type	Role
Adel	Cook County	15J	Public	General Aviation	-	Local
Albany	Southwest Georgia Regional	ABY	Public	Primary	Non-Hub	-
Alma	Bacon County	AMG	Public	General Aviation	-	Basic
Americus	Jimmy Carter Regional	ACJ	Public	General Aviation	-	Local
Ashburn	Turner County	75J	Public	General Aviation	-	Basic
Athens	Athens/Ben Epps	AHN	Public	General Aviation	-	Regional
Atlanta	Atlanta Regional Falcon Field	FFC	Public	General Aviation	-	Regional
Atlanta	Atlanta Speedway	HMP	Public	General Aviation	-	Regional
Atlanta	Cobb County International/McCollum Field	RYY	Public	Reliever	-	National
Atlanta	Covington Municipal	CVC	Public	General Aviation	-	Local
Atlanta	Dekalb-Peachtree	PDK	Public	Reliever	-	National
Atlanta	Fulton County Exec/Charlie Brown Field	FTY	Public	Reliever	-	National
Atlanta	Newnan Coweta County	CCO	Public	General Aviation	-	Regional
Atlanta	Paulding Northwest Atlanta	PUJ	Public	General Aviation	-	Regional
Augusta	Augusta Regional at Bush Field	AGS	Public	Primary	Non-Hub	-
Augusta	Daniel Field	DNL	Public	General Aviation	-	Regional
Bainbridge	Decatur County Industrial Air Park	BGE	Public	General Aviation	-	Local
Baxley	Baxley Municipal	BHC	Public	General Aviation	-	Local
Blairsville	Blairsville	DZJ	Public	General Aviation	-	Local
Blakely	Early County	BIJ	Public	General Aviation	-	Local
Brunswick	Brunswick Golden Isles	BQK	Public	Primary	Non-Hub	-
Buena Vista	Marion County	82A	Public	General Aviation	-	Non-NPIAS
Butler	Butler Municipal	6A1	Public	General Aviation	-	Local
Cairo	Cairo-Grady County	70J	Public	General Aviation	-	Basic

City	Airport	FAA ID	Ownership	Service Level	Hub Type	Role
Calhoun	Tom B David Field	CZL	Public	General Aviation	-	Local
Camilla	Camilla-Mitchell County	CXU	Public	General Aviation	-	Local
Canon	Franklin-Hart	18A	Public	General Aviation	-	Local
Canton	Cherokee County Regional	CNI	Public	General Aviation	-	Regional
Carrollton	West Georgia Regional - O V Gray Field	CTJ	Public	General Aviation	-	Regional
Cartersville	Cartersville	VPC	Public	General Aviation	-	Regional
Cedartown	Polk County/Cornelius Moore Field	4A4	Public	General Aviation	-	Local
Claxton	Claxton-Evans County	CWV	Public	General Aviation	-	Local
Cochran	Cochran	48A	Public	General Aviation	-	Local
Columbus	Columbus	CSG	Public	Primary	Non-Hub	-
Cordele	Crisp County-Cordele	CKF	Public	General Aviation	-	Basic
Cornelia	Habersham County	AJR	Public	General Aviation	-	Local
Cuthbert	Lower Chattahoochee Regional	25J	Public	General Aviation	-	Unclassified
Dahlonega	Lumpkin County-Wimpy's	9A0	Public	General Aviation	-	Non-NPIAS
Dalton	Dalton Municipal	DNN	Public	General Aviation	-	Regional
Dawson	Dawson Municipal	16J	Public	General Aviation	-	Local
Donalsonville	Donalsonville Municipal	17J	Public	General Aviation	-	Local
Douglas	Douglas Municipal	DQH	Public	General Aviation	-	Local
Dublin	W H 'Bud' Barron	DBN	Public	General Aviation	-	Local
Eastman	Heart of Georgia Regional	EZM	Public	General Aviation	-	Local
Elberton	Elbert County-Patz Field	EBA	Public	General Aviation	-	Local
Elijay	Gilmer County	49A	Public	General Aviation	-	Local
Fitzgerald	Fitzgerald Municipal	FZG	Public	General Aviation	-	Local
Folkston	Davis Field	3J6	Public	General Aviation	-	Non-NPIAS
Fort Stewart (Hinesville)	Wright AAF (Fort Stewart)/Midcoast Regional	LHW	Military	General Aviation	-	Local
Gainesville	Lee Gilmer Memorial	GVL	Public	General Aviation	-	Regional
Greensboro	Greene County Regional	CPP	Public	General Aviation	-	Local
Griffin	Griffin-Spalding County	6A2	Public	General Aviation	-	Local
Hawkinsville	Hawkinsville-Pulaski County	51A	Public	General Aviation	-	Non-NPIAS
Hazlehurst	Hazlehurst	AZE	Public	General Aviation	-	Local
Homerville	Homerville	HOE	Public	General Aviation	-	Unclassified
Jasper	Pickens County	JZP	Public	General Aviation	-	Local
Jefferson	Jackson County	JCA	Public	General Aviation	-	Local
Jekyll Island	Jekyll Island	09J	Public	General Aviation	-	Unclassified
Jesup	Jesup-Wayne County	JES	Public	General Aviation	-	Basic
La Fayette	Barwick Lafayette	9A5	Public	General Aviation	-	Local
La Grange	Lagrange/Callaway	LGC	Public	General Aviation	-	Regional

City	Airport	FAA ID	Ownership	Service Level	Hub Type	Role
Lawrenceville	Gwinnett County/Briscoe Field	LZU	Public	Reliever	-	National
Louisville	Louisville Municipal	2J3	Public	General Aviation	-	Basic
Macon	Macon Downtown	MAC	Public	General Aviation	-	Local
Macon	Middle Georgia Regional	MCN	Public	Primary	Non-Hub	-
Madison	Madison Municipal	52A	Public	General Aviation	-	Local
McRae	Telfair-Wheeler	MQW	Public	General Aviation	-	Basic
Metter	John Edwin Jones Sr Field/Metter Municipal	MHP	Public	General Aviation	-	Local
Milledgeville	Baldwin County Regional	MLJ	Public	General Aviation	-	Regional
Millen	Millen	2J5	Public	General Aviation	-	Basic
Monroe	Cy Nunnally Memorial	D73	Public	General Aviation	-	Local
Montezuma	Dr C P Savage Sr	53A	Public	General Aviation	-	Basic
Moultrie	Moultrie Municipal	MGR	Public	General Aviation	-	Regional
Moultrie	Spence Airport	MUL	Public	General Aviation	-	Non-NPIAS
Nahunta	Brantley County	4J1	Public	General Aviation	-	Unclassified
Nashville	Berrien County	4J2	Public	General Aviation	-	Basic
Perry	Perry-Houston County	PXE	Public	General Aviation	-	Local
Pine Mountain	Harris County	PIM	Public	General Aviation	-	Local
Quitman	Quitman Brooks County	4J5	Public	General Aviation	-	Basic
Reidsville	Swinton Smith Field at Reidsville Municipal	RVJ	Public	General Aviation	-	Basic
Rome	Richard B Russell Regional - J H Towers Field	RMG	Public	General Aviation	-	Regional
Sandersville	Kaolin Field	OKZ	Public	General Aviation	-	Local
Savannah	Savannah/Hilton Head International	SAV	Public	Primary	Small Hub	-
Soperton	Treutlen County Airport	4J8	Public	General Aviation	-	Non-NPIAS
St Simons Island	St Simons Island	SSI	Public	General Aviation	-	Regional
Statesboro	Statesboro-Bulloch County	TBR	Public	General Aviation	-	Regional
Swainsboro	East Georgia Regional	SBO	Public	General Aviation	-	Local
Sylvania	Plantation Airpark	JYL	Public	General Aviation	-	Local
Sylvester	Sylvester	SYV	Public	General Aviation	-	Unclassified
Thomaston	Thomaston-Upson County	OPN	Public	General Aviation	-	Local
Thomasville	Thomasville Regional	TVI	Public	General Aviation	-	Regional
Thomson	Thomson-McDuffie County	HQU	Public	General Aviation	-	Regional
Tifton	Henry Tift Myers	TMA	Public	General Aviation	-	Regional
Toccoa	Toccoa - R G LeTourneau Field	TOC	Public	General Aviation	-	Local
Valdosta	Valdosta Regional	VLD	Public	Primary	Non-Hub	-
Vidalia	Vidalia Regional	VDI	Public	General Aviation	-	Local
Warm Springs	Roosevelt Memorial	5A9	Public	General Aviation	-	Local

City	Airport	FAA ID	Ownership	Service Level	Hub Type	Role
Washington	Washington/Wilkes County	IY	Public	General Aviation	-	Local
Waycross	Waycross-Ware County	AYS	Public	General Aviation	-	Regional
Waynesboro	Burke County	BXG	Public	General Aviation	-	Basic
Winder	Barrow County	WDR	Public	General Aviation	-	Regional
Wrens	Wrens Memorial	65J	Public	General Aviation	-	Unclassified

Source: FAA National Plan of Integrated Airport Systems (NPIAS)

As this section has demonstrated, depending upon the airport size, determined by relative level of activity, not all possible sources of funding for hangar development are equally applicable. Many hangar funding sources are often not viable funding avenues for smaller/rural general aviation airports. As this study documented, 25 states have either a loan or a grant program that provides access to funds for hangar development. The parameters of these programs vary greatly in their magnitude and conditions. While current programs in Georgia that provide access to hangar funding are similar to the remaining states that do not have specific loan or grant programs for airport infrastructure, there are opportunities for Georgia to explore implementing either a loan or a grant program that could provide assistance with funding airport infrastructure, including hangars. Such a program would be particularly beneficial to smaller general aviation airports that have more limited options for either public or private funding for hangar development.

3.3 Cost Estimates to Fill Demand Gap

Information underlying **Table 2-1** and **Table 2-2** is used to support the development of hangar cost estimates discussed in this section. Using information provided by GDOT and study airports from recent hangar development projects in Georgia, a cost of \$97,200 per T-hangar unit is adopted for use in this analysis and for conventional hangar buildings, a cost of \$101 per square foot is used. As noted, these costs are primarily associated with the hangar structure itself; it is likely that airports will experience other costs related to actual implementation and development. Costs presented in this section are not airport or site specific, and they are based on today’s dollar. Consequently, actual implementation costs are very likely to exceed estimates presented in this report. Because each airport’s hangar development situation is unique and there are many factors that impact final development costs, it is not possible to estimate how actual implementation costs will vary from those estimated in this analysis. Unit costs identified in this analysis are applied to hangar demand estimates for each airport and to hangar types depicted on existing ALPs for the study airports.

3.3.1 Statewide Costs

Using the assumptions set forth for this analysis, cost estimates to provide additional hangar spaces to satisfy current unmet demand are provided in **Table 3-3**. Cost estimates are shown for the state and for each of the seven GDOT Districts. As shown, the total statewide estimate, to address the current gap in hangar demand, is almost \$450 million. Cost estimates, on a per district basis, range from a low of \$11.5 million in District 4 to a high of \$135 million in District 7. Cost estimates presented in this table vary based on the number of hangar spaces identified to meet current demand for additional hangar storage identified in this analysis and on the type of hangar structure that could be developed (as per current ALPs) to meet that demand. These inputs vary by study airport.

Table 3-3: Statewide Cost Estimates to Address Current Hangar Storages

	Cost for T-hangars	Cost for Conventional Hangars (Corporate/Box/Community)	Total Cost All Hangars
District 1	\$14,385,600	\$59,159,200	\$73,544,800
District 2	\$8,845,200	\$19,520,510	\$28,365,710
District 3	\$15,357,600	\$73,452,630	\$88,810,230
District 4	\$7,776,000	\$3,727,840	\$11,503,840
District 5	\$9,525,600	\$46,658,780	\$56,184,380
District 6	\$16,815,600	\$39,876,745	\$56,692,345
District 7	\$0	\$134,891,080	\$134,891,080
Statewide	\$72,705,600	\$377,286,785	\$449,992,385

Source: Study analysis and airport/GDOT input on hangar development costs.

Demand for additional hangar storage reflects unconstrained demand. In other words, this study’s demand estimates assume that all airports can provide additional hangar storage to meet their identified demand. In some cases, however, there may be study airports that appear to have current unmet demand that may push the limit for hangar storage as it is currently planned and reflected on their most recent ALP. This determination is based on ALP review. In a subsequent section of this report, any airports which may need to consider further planning for additional hangar storage are identified.

3.4 Cost Estimates for Failed Hangars

The life span for each hangar structure is impacted by several factors. The initial quality of the construction and construction materials both contribute to a hangar’s life span. After construction, the frequency and thoroughness of maintenance also impacts the life span of the hangar. Climate and weather also factor into the life span of a hangar. Information from study airports and manufacturers of aircraft hangars both indicate that the life span for a hangar could reach 50 years. For all hangar structures at the study airports, the current estimated average age is 30 years.

This study collected information from airport representatives on their assessed condition for each hangar structure at their airport. As previously noted in **Section 1** of this report, it is estimated that two (2) percent of all hangar structures statewide are in “failed” condition. This may imply that these structures are no longer capable of being used for hangar storage or other intended purposes.

As part of this analysis, cost estimates to replace failed hangars are developed. These cost estimates are shown in **Table 3-4**. Statewide, an estimated \$11.8 million is needed in today’s dollars to replace hangars that are reported as being in failed condition. These costs are based on the type and size of the failed hangar, as determined by this study’s inventory effort. It is important to note that the costs to replace failed hangars are in addition to the \$450 million previously identified to develop new hangars to address the current demand gap.

Table 3-4 presents information on the type and size of the failed hangar, as well as its location within the state. The information on failed hangars, presented in **Table 3-4**, reflects only hangars that are identified as being owned by an airport and being used for aircraft storage. If failed hangar facilities are not owned by an airport or if they are classified as a maintenance/MRO hangar, a cost estimate to replace the failed

structure is not included in **Table 3-4**. This study's inventory effort did in fact identify other hangars rated as failed that are owned by others or that are used for maintenance/MRO.

Table 3-4: Statewide Failed Hangar Replacement Costs

Statewide Failed Hangar Replacement Costs						
Airport	FAA ID	GDOT District	Type of Hangar	Year Constructed	Hangar Size (sq ft)	Cost to Replace
Commercial Service/Part 139 Airports						
Southwest Georgia Regional	ABY	4	Community	1967	25,000	\$2,532,500
General Aviation Airports						
Bacon County	AMG	5	Community	1980	8,000	\$810,400
Waycross-Ware County	AYS	5	Corporate	1970	6,750	\$683,775
Elbert County-Patz Field	EBA	1	Corporate	1978	2,500	\$253,250
Newnan-Coweta County	CCO	3	T-hangar	1970	n/a	\$777,600
Newnan-Coweta County	CCO	3	T-hangar	1970	n/a	\$777,600
Newnan-Coweta County	CCO	3	T-hangar	1970	n/a	\$777,600
West Georgia Regional - O.V. Gray Field	CTJ	6	T-hangar	1982	n/a	\$777,600
West Georgia Regional - O.V. Gray Field	CTJ	6	T-hangar	1992	n/a	\$97,200
West Georgia Regional - O.V. Gray Field	CTJ	6	T-hangar	1992	n/a	\$97,200
West Georgia Regional - O.V. Gray Field	CTJ	6	T-hangar	1992	n/a	\$97,200
West Georgia Regional - O.V. Gray Field	CTJ	6	T-hangar	1992	n/a	\$97,200
Heart of Georgia Regional	EZM	2	T-hangar	1975	n/a	\$777,600
Fitzgerald Municipal	FZG	4	T-hangar	1968	n/a	\$291,600
DeKalb-Peachtree	PDK	7	T-hangar	1965	n/a	\$486,000
DeKalb-Peachtree	PDK	7	T-hangar	1965	n/a	\$680,400
DeKalb-Peachtree	PDK	7	T-hangar	1965	n/a	\$777,600
DeKalb-Peachtree	PDK	7	T-hangar	1965	n/a	\$972,000
Commercial Service/Part 139 Total						\$2,532,500
General Aviation Total						\$9,231,825
Statewide Total						\$11,764,325

Source: Survey results and study analysis.

As information in this study's inventory documented, the age of hangars in Georgia is increasing. As hangars continue to age, replacement or major rehabilitation of other hangars most likely will be needed in the coming years. Aging hangars throughout Georgia will add to the state's financial needs as costs for rehabilitating and replacing hangar storage structures at study airports will also arise.

4. Future Aircraft Storage Availability

As demand for additional hangar storage space was identified during this analysis, existing ALPs were reviewed to determine the ability of study airports to accommodate their respective unmet demand for hangar storage. Additional unmet demand is defined by the number of aircraft currently seeking hangar storage at one of the study airports. In most cases, ALP reviews show that there is sufficient planned capacity (additional hangar storage) at each of the study airports to accommodate the airport’s additional unmet demand identified in this study.

It is important to note that the Statewide Hangar Inventory and Demand Analysis is a high-level planning study. Review completed in this study is not comparable to the more in-depth analysis that characterizes an Airport Master Plan. As a result, some findings identified in this analysis need to be confirmed in more detailed airport specific planning.

Based on the ALP review for each airport, some study airports may need to plan for additional hangar storage, beyond what is currently depicted in on their current ALP. As previously discussed, each airport’s demand for additional hangar storage was compared to planned hangar development depicted on the airport’s most current ALP as provided by GDOT. In some instances, there may be airports that “use” all planned hangar development (as per their current ALP) to address current unmet demand for hangar storage identified in this study.

Detailed studies and feasibility analyses would be required to determine if some airports are able to expand to provide additional hangar storage, beyond that currently identified on their ALP. Hangar expansion potential for some study airports requires follow on airport-by-airport study and investigation. Based on this study’s investigation, study airports that need to explore options for additional longer term hangar development are listed as follows:

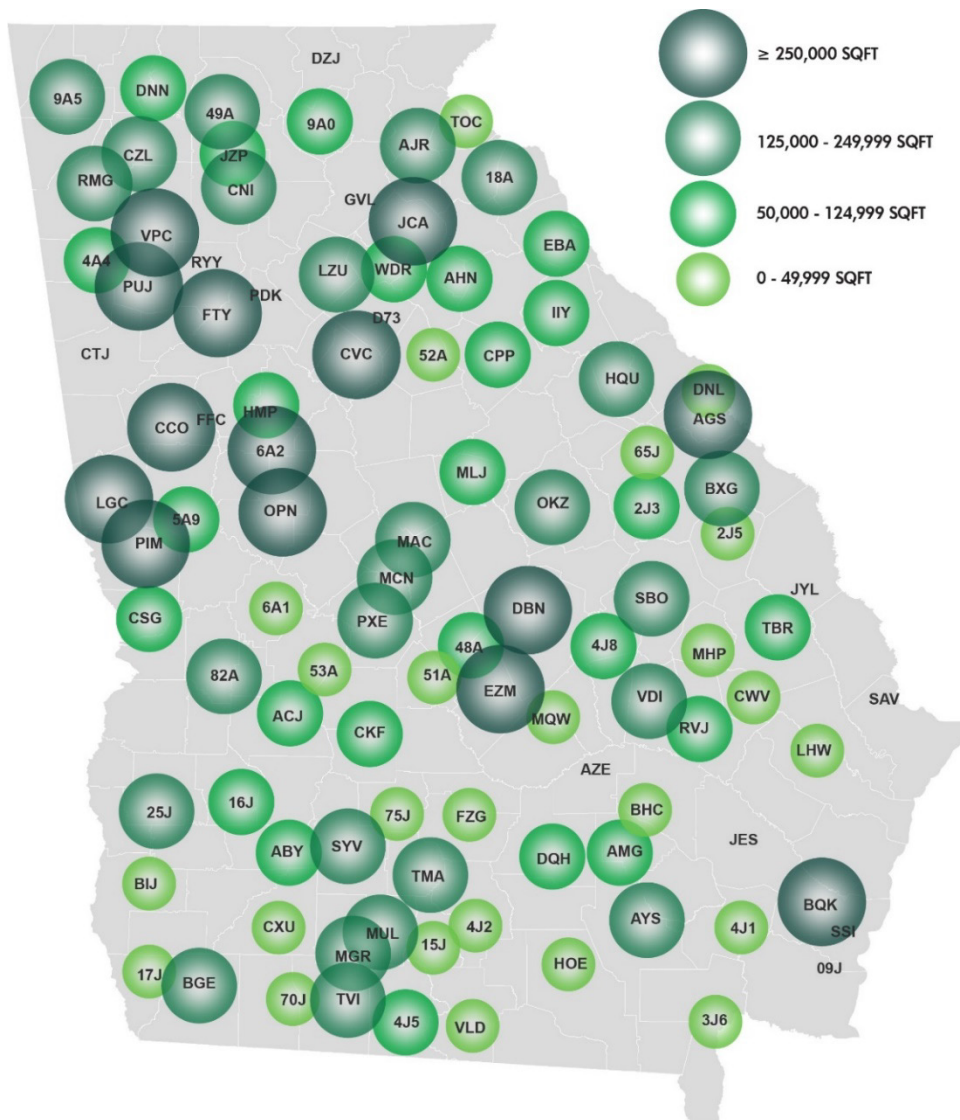
- PDK: DeKalb-Peachtree Airport
- RYY: Cobb County International Airport-McCollum Field
- FFC: Atlanta Regional Airport-Falcon Field
- GVL: Lee Gilmer Memorial Airport
- SSI: St. Simons Island Airport
- SAV: Savannah-Hilton Head International Airport
- DZJ: Blairsville Airport
- CTJ: West Georgia Regional Airport-O.V. Gray Field
- D73: Cy Nunnally Memorial Airport
- JYL: Plantation Airpark
- AZE: Hazlehurst Airport
- 09J: Jekyll Island Airport
- JES: Jesup-Wayne County Airport

An alternative to airport expansion, to meet future aircraft storage capacity in Georgia, may be provided by other study airports. Based on ALP reviews, throughout the state there are airports that have additional hangar development planned once their current unmet demand for hangar storage is satisfied.

The most current ALP for each study airport was reviewed as part the Statewide Hangar Inventory and Demand Analysis. An important part of the study’s analysis was to compare unmet demand for additional hangar storage to planned hangar storage spaces reflected on each ALP. Once the number of additional aircraft seeking storage at each airport is identified, ALPs and planned hangar development are reviewed to determine the type and size of hangar available to accommodate each airport’s identified demand.

With this step completed, it is then possible to identify remaining or “available” aircraft storage capacity. The available hangar capacity is defined as the square footage in planned hangar storage that remains at an airport after current unmet demand for hangar storage, identified in this study, is satisfied. **Figure 4-1** reflects relative remaining hangar availability, measured in square footage, as identified by analysis completed in this study. This is hangar storage that appears to be available after this study’s additional unmet demand for aircraft hangar storage is satisfied.

Figure 4-1: Remaining Planned Hangar Storage Capacity after Addressing Unmet Demand (Square Feet)



Note: Estimates of additional hangar storage capacity based on current ALPs for all study airports

This desktop analysis shows that additional planned hangar capacity (measured by hangar structures shown on ALPs) available at some study airports may provide an opportunity for addressing demand for longer-term hangar capacity needs. The actual viability of this option is contingent on several factors. These factors include:

- Aircraft Owner's Choice - If hangar storage is not available at an aircraft owner's "first choice", the owner would need to be willing to drive to another airport that has hangar storage availability. Given drive times, convenience, and other considerations, aircraft owners may opt not to take advantage of hangar storage at a more distant airport.
- Development Feasibility – Available hangar storage capacity identified in this study was determined using available ALPs. How up to date the ALPs varies widely amongst the study airports. While hangar development may be depicted on an ALP, it is possible that this development is no longer planned or feasible. Also, several study airports indicate they are planning hangar expansion which is not depicted on their current ALP. This could change the information reflected in **Figure 4-1**.
- Access to Funding - As this study has noted, funding for hangar construction is often a development constraint. While airports may show hangar development on their ALP, securing funding for development often presents a challenge. Depicting new hangars on an approved ALP is only one step in the development process. Without funding, additional hangar storage capacity implied on airport ALP may not be feasible.
- Type/Size of Hangar – Aircraft seeking hangar storage vary greatly in size and the type of hangar they are seeking. Showing hangar development on an ALP does not necessarily guarantee that actual development will be suited to the needs of aircraft seeking storage.

While study analysis shows the availability of planned hangar storage throughout the state, matching actual circumstances to the theoretical capacity could present challenges. What this analysis does show is that study airports have plans (as per hangars depicted on their ALPs) to meet current unmet demand identified on hangar waiting lists with some exceptions. In addition, some ALPs reflect the potential to provide additional storage capacity after identified unmet demand is satisfied.

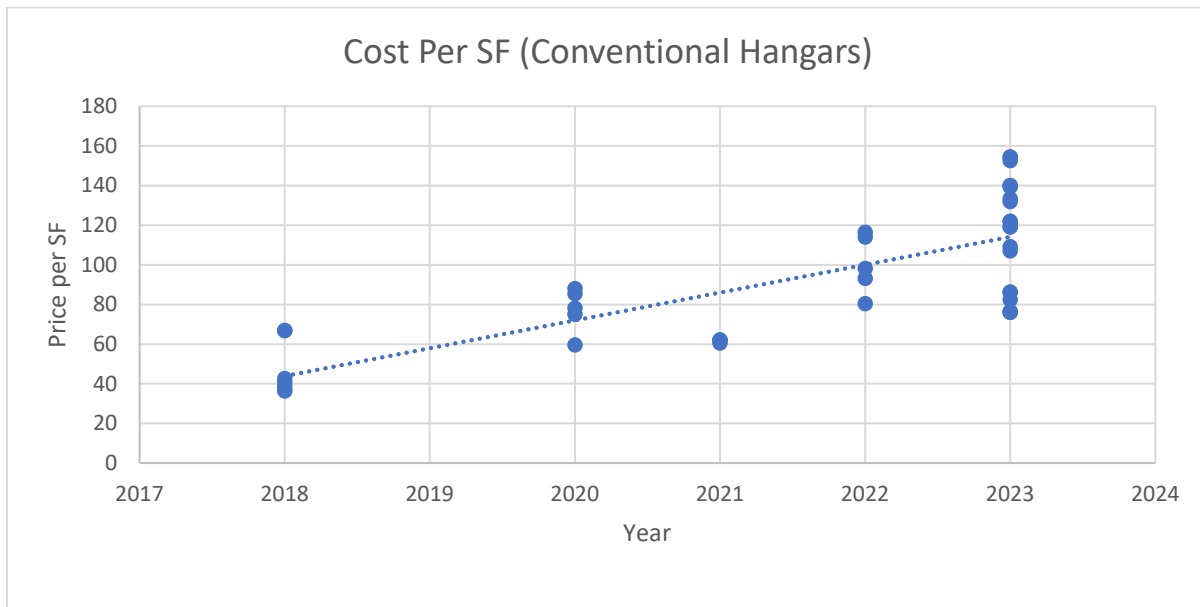
5. Potential Cost Escalations and Future Demand

Analysis completed in this study is based on a snapshot of conditions that existed at the time the Statewide Hangar Inventory and Demand Analysis was undertaken. Findings and conclusions on unmet demand, potential development to meet the demand, and associated costs are all based on current conditions. The timeframe for this study was generally the fall/winter of 2023. In future years, costs will undoubtedly increase, and demand will grow. This section provides an overview of how baseline assumptions used in this study could change going forward.

5.1 Escalating Costs

As previously noted, unit costs used in this study were obtained from actual and recent hangar development projects in Georgia. Additional information on current hangar construction cost was also provided by some study airports. Data depicting the increase in hangar construction costs over the past five years is depicted in **Figure 5-1**. Much of the more recent cost escalation has been a result of the increased cost of building materials, in particular steel. Information in **Figure 5-1** indicates that over the past five years, the cost per square foot for conventional hangar construction has increased. This study estimated that in today's dollars at least \$450 million in hangar investment to address the state's current demand gap for hangar storage. Based on the anticipated rate of inflation, by 2033, this same cost could increase to over \$566 million in 10 years. The takeaway is that investment needed to address the gap between demand and available aircraft hangar storage will continue to escalate. Input from Georgia airport representatives and AOPA indicates it often takes two years to build new aircraft storage facilities. Within that context, this study's estimate of \$450 million to address the current demand gap will quickly be understated. This conclusion is based on the length of time required to construct new hangars, anticipated increases in demand for hangar storage beyond those identified in this analysis, escalating cost for construction materials, and added costs that will be required to address airport/site specific hangar development needs.

Figure 5-1: Historic Increases in Conventional Hangar Construction Prices



Source: Bid Tabs from GDOT and construction costs from study airports.

5.2 Growing Demand

This study estimates that currently there are 1,405 aircraft owners seeking hangar storage at one of the study airports. This demand will continue to grow. According to FAA sources, there are currently 5,654 aircraft based at all study airports. The FAA predicts that general aviation aircraft in the U.S. will increase at a very minimal rate, 0.4 percent, per year over the next 10 years. While the percentage of turboprop and jet general aviation are expected to grow, according to the FAA, the percentage of single-engine piston aircraft is expected to decline. Based on the FAA’s anticipated rate of growth, as **Table 5-1** shows, an additional 230 based aircraft can be expected in Georgia. These additional 230 aircraft represent “organic” growth (internal to Georgia) for based aircraft at the study airports. This does not include growth that could be fueled by additional aircraft owners moving to Georgia.

As this study documented, there are non-based aircraft currently seeking hangar storage at the study airports. These are additional individuals and businesses that could move to Georgia from another state, individuals/businesses who could purchase new aircraft, seasonal/second homeowners seeking hangar storage at a study airport, and/or aircraft owners wishing to move from one of the non-study airports to one of the 102 public airports in Georgia. These categories could represent another 170 based aircraft attracted to study airports over the next 10 years. Combined (230 + 170 = 400), another 400 aircraft could be seeking aircraft storage in the next 10 years. These aircraft would be in addition to the 1,405 aircraft currently seeking hangar storage that were identified in the study analysis.

As costs rise and demand increases, challenges to provide additional hangar storage for all aircraft seeking a storage space at any of the study airports will continue to grow. A collaborative approach to funding is needed to successfully address Georgia’s current hangar storage deficit.

Table 5-1: Expected Organic Growth in Based Aircraft

Year	Based Aircraft	Percent Average Annual Rate of Growth
2023	5,654	
2024	5,677	0.40%
2025	5,699	0.40%
2026	5,722	0.40%
2027	5,745	0.40%
2028	5,768	0.40%
2029	5,791	0.40%
2030	5,814	0.40%
2031	5,837	0.40%
2032	5,861	0.40%
2033	5,884	0.40%

Note: Rate of based aircraft of growth as per FAA National Aerospace Forecast; does not include additional based aircraft from other locations that could be attracted to study airports.

6. Hangar Rental Rates at Study Airports

As part of this analysis, an additional supplemental survey of the 102 study airports was conducted to gather information on current hangar rental rates. Airport representatives interviewed as part of this study indicate that current construction costs make it difficult to build new hangars and to charge rental rates that are sufficient to amortize investment in new hangar structures, particularly T-hangars.

As information in **Section 1** of this document indicates, more hangar structures in Georgia are owned by others than are owned by the study airports. Further analysis shows that 75 percent of all existing T-hangars are airport owned. Because of smaller rental margins on T-hangars, third-party developers concentrate on building corporate/box hangars. Aircraft seeking storage in corporate/box hangars are typically more willing to pay higher rates needed to cover the cost of hangar development.

The hangar rental rate survey collected information on rental rates for T-hangar units, corporate/box hangars, and parking spaces in shared community hangars. Recognizing that many airports report they do not own all hangar structures, information was also sought on hangar rental rates charged by other hangar owners. For the 102 study airports, 101 airports participated in the hangar rental rate survey. While all but one airport participated in the rates survey, some airports provided responses that were either not comparable or conducive to rate comparisons. In many instances, airports were not aware of or did not have access to rental rates charged by others or private hangar owners at their airport. Some responding airports also do not have all three types of hangar storage. For example, some of the responding airports only have T-hangars; these factors all have an impact on the reported survey findings.

Based on analysis of all responses to the hangar rental rate survey, **Table 6-1** reflects average statewide hangar rental rates by hangar type and by hangar owner (airport or others). As this table shows for each hangar category, rental rates charged by others exceed the rental rate charged by airports. The owners of non-airport owned hangars pay additional fees for ground leases and property tax on their hangar structure as well as seeking profit if this is the reason for their investment. Also, private developers often pay higher interest rates on loans taken to support hangar development. This results in the need for other owners to charge higher rates to recover their costs. The additional costs that other (non-airport) hangar owners incur are reflected in their higher rental rates.

Hangar rental rates are part of each hangar's lease agreement. A best practices guide was developed as a companion to this study and is available from GDOT. As per information in the guide, leases should provide airports with the opportunity to adjust rates on a periodic basis. The hangar rental rates presented here, will enable airports to benchmark their current rates to determine if their rates are comparable with, higher than, or lower than rates being charged for similar facilities in Georgia. Aside from fuel sales, revenue from hangar rentals typically represents the highest revenue stream for general aviation airports. Therefore, it is important they maximize potential revenue from hangar rentals. Information presented in this section can be consulted to make rate adjustments as warranted.

Table 6-1: Statewide Average Hangar Rental Rates

Ownership/Type	Monthly Rental Rate
Airport T-Hangar Unit	\$209
Other T-Hangar Unit	\$342
Airport Corporate/Box Hangar	\$1,323
Other Corporate/Box Hangar	\$2,071
Airport Community Hangar Parking Space	\$321
Other Community Hangar Parking Space	\$507

Source: Study survey analysis

Additional investigation was undertaken to compare Georgia’s average hangar rental rates to those in other states. **Table 6-2** presents hangar rental rates as reported by other states who have completed similar statewide studies on hangar rental rates. For this comparison, monthly hangar rental rates from similar statewide studies in Colorado, Montana, Nebraska, Oregon, South Dakota, Tennessee, Texas, Wisconsin, and Wyoming were reviewed. Many factors drive hangar rental rates charged in any state. As with any commodity, supply and demand often factor into what rates are charged. Information from other statewide studies does not indicate if rental rates reported in those studies are for hangars owned only by airports or if rates shown reflect those for hangars owned by others.

Table 6-2: Comparisons of Statewide Hangar Rates

	Colorado	Montana	Nebraska	Oregon	South Dakota	Tennessee	Texas	Wisconsin	Wyoming	Average Monthly Rate
T Hangar Unit	\$208	\$104	\$145	\$202	\$279	\$209	\$274	\$218	Not provided	\$205
Community Parking Space	Not provided	Not provided	Not provided	\$297	\$250	\$684	\$375	Not provided	\$199	\$361
Corporate/Box	\$779	Not provided	\$1,245	Not provided	\$2,500	\$1,268	\$745	Not provided	\$3,298	\$1,639

Source: Information presented in this table was obtained from the review of published statewide rates and charges studies for the states reference in the table.

As information in **Table 6-2** shows, the average monthly hangar rental rate reported for all T-hangar units in other states is reported at \$205. The range for renting a T-hangar unit in Georgia, as reported in **Table 6-1**, is \$209 for airport owned T-hangars and \$342 for T-hangar units that are owned by others. The average monthly rental rate for airport owned T-hangar units in Georgia is comparable to rates reported in other states publishing information on their rates and charges. Of the states included in the comparative rates analysis in **Table 6-2**, South Dakota, Texas, and Wisconsin do not have a specific state grant or a loan program to assist airports with funding for hangar development. The other states in the comparative rates analysis have a grant, loan, for both a grant and loan program to help fund hangar development.

For other states, the average monthly rental rate reported for a corporate/box hangar is \$1,639. In Georgia, the average monthly rate of \$1,323 is reported for airport owned corporate box hangars, and an average monthly rental rate of \$2,071 is reported for corporate/box hangars owned by others. This results in an average monthly rental rate for a corporate/box hangar in Georgia that is comparable to

that reported in other states that were reviewed in this analysis. This conclusion, however, is based on a small sample size.

Other states report that, on average, the monthly rate for a parking space in a community hangar is \$361. In Georgia, for airport owned community hangars, the monthly rental rate for a parking space is reported at \$321. What can be concluded from this review is that hangar rental rates in Georgia appear comparable at least to those in other states that have conducted similar statewide studies. Study analysis shows that it is important for airports to charge rental rates that are sufficient to cover both development and operational costs; adequate rental rates are needed in order for all airports to promote their financial self-sufficiency.

Table 6-3 summarizes hangar rental rates by GDOT District. The rates presented in **Table 6-3** reflect a combination of rates charged by the airports and rates charged by others. In some cases, a small sample size may skew reported survey results. This is most likely the case for the rental rate reported for a community hangar storage space in District 1 and the corporate/box hangar rental rate reported in this same district.

Table 6-3: Average Monthly Hangar Rental Rates by GDOT District

District	T-Hangar Unit	Corporate/Box	Community Parking Space
1	\$319	\$3,509	\$717
2	\$233	\$333	\$167
3	\$258	\$2,583	\$348
4	\$129	\$759	\$307
5	\$231	\$444	\$436
6	\$274	\$1,529	\$283
7	\$750	Not Reported	Not Reported

Source: Study survey analysis

Generally speaking, with the exception of District 4, which reports an average monthly T-hangar rental of \$129 and District 7 which reports an average monthly T-hangar rental rate of \$750, other districts, as per information in **Table 6-3**, have similar average monthly rental rates for a T-hangar unit. With the exception of District 1, the average monthly rental rate for a parking space in a community hangar is also comparable. The greatest variance on average monthly rental rates is for corporate/box hangars. A number of factors most likely influence the difference in hangar rental rates for corporate/box hangar storage among the districts. Among these are type of hangar door, overall size of hangar, and availability of adjoining office space. With the exception of the \$3,509 monthly rental rate reported for District 1, the remaining district rental rates are similar to or lower than the reported statewide average for airport owned and non-airport owned corporate/box hangars (see **Table 6-2**).

In addition to reviewing rental rates by GDOT district, average monthly hangar rental rates by airport role were also identified. **Table 6-4** summarizes monthly hangar rental by state system plan airport role. Based on their facilities, services, demand levels, customers, and the communities they serve, Georgia's State Airport System Plan assigns airports to various roles or levels. Each airport's assigned airport level reflects the airport's relative contribution to meeting the state's air transportation needs. All commercial service airports are included in Level III; the state's most developed and busiest general aviation airports

are also included in Level III. Levels II and I include general aviation airports that serve varying levels of demand and have different levels of facilities and services. Each airport’s role or level assignment in the state airport system is reflective of its facilities and services and type of customers and the community it serves.

As reflected in **Table 6-4**, average monthly T-hangar rental rates are somewhat similar. The biggest outlier is the reported T-hangar unit rental rate for Level III Commercial Service Airports when the hangar is non-airport owned.

Generally, monthly rental rates are higher for non-airport owned hangars and are highest at the Level III airports, when monthly hangar rental rates reported by the commercial service airports are discounted. Monthly hangar rental rates are lowest for the Level I airports; these airports tend to have the lowest volumes of activity in terms of based aircraft and annual operations. As with other results from the survey, the hangar rental rates charged for hangars owned by others tend to eclipse the rate charged by the airport for the same type of hangar.

Table 6-4: Average Monthly Hangar Rental Rates by State Airport Role

Level	Airport T-Hangar Unit	Other T-Hangar Unit	Airport Corporate/Box Hangar	Other Corporate/Box Hangar	Airport Community Parking Space	Other Community Parking Space
Level III CS	\$216	\$625	\$618	Not Reported	\$229	\$850
Level III	\$230	\$260	\$1,782	\$2,614	\$401	\$533
Level II	\$195	\$360	\$1,294	\$1,613	\$330	\$443
Level I	\$176	Not Reported	\$468	\$96	\$168	\$200

Source: Study survey analysis

As previously mentioned, it is important that airports charge hangar rental rates that are in line with fair market value. At the same time, rates should be sufficient to amortize development costs. GDOT’s best practices guide provides information on hangar rental rate setting and hangar leases. Hangar rental rate information presented in this section of the report can be used in conjunction with the best practices guide to help airports monitor their hangar rental rates to better achieve financial self-sufficiency.

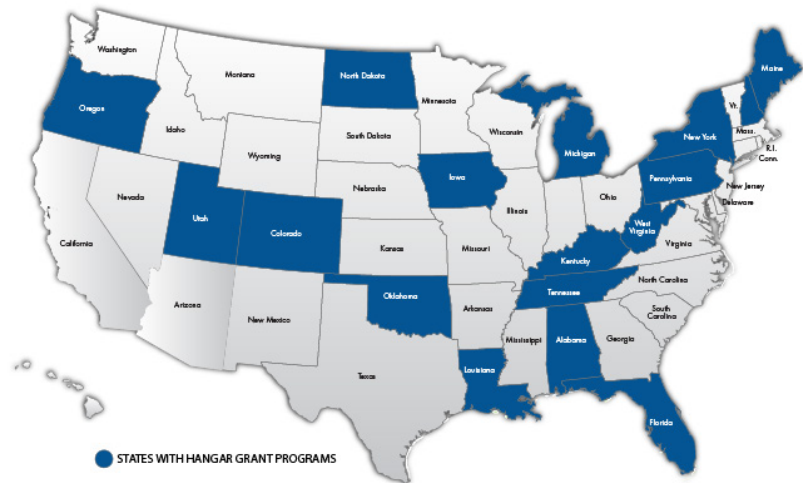
7. Summary of Findings from Outreach to Other States

A survey, conducted with support from the National Association of State Aviation Officials (NASAO), allows GDOT to compare its current aircraft hangar funding policies against those of other states. The survey investigates three areas relative to state funding for hangars:

- State matching funds for federally funded hangar projects
- State funding for non-federal projects
- Special state sponsored loan or funding programs for hangar development

7.1 State Grant Programs for Funding Hangar Development

The survey investigates three areas relative to state funding for hangars, as previously listed above. Data evaluated from 46 state respondents shows GDOT's current policy to provide 50 percent matching funds of the non-federal share of federally funded hangar projects at general aviation airports is consistent with 75 percent of the other state respondents. Georgia, similar to 57 percent of the responding states, provides no additional state funding for hangar construction.

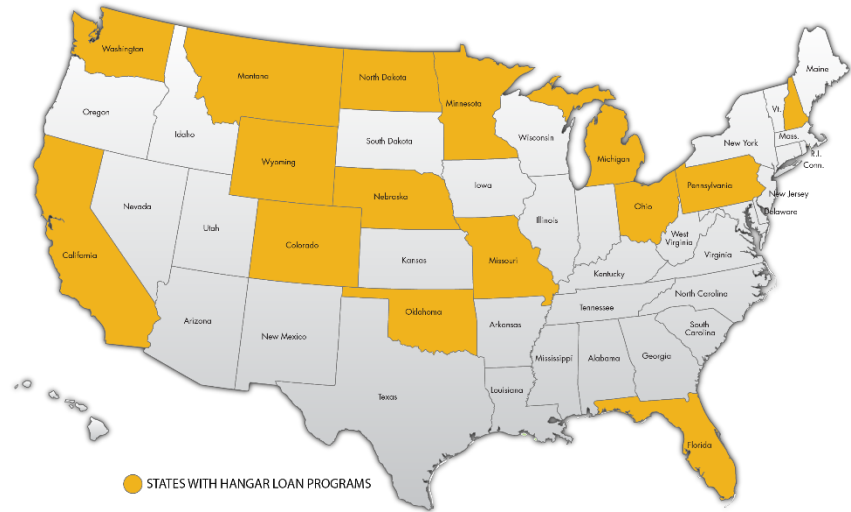


For the 43 percent of states whose programs provide state funding for hangar development, with no federal participation, state funding participation ranges from 5 percent to 90 percent. State programs in Kentucky and Louisiana are considered outliers, providing state funding at 100 percent of the cost for hangar construction. For these states, the percentage of state funds expended on non-federal hangar projects, compared to total annual state program funding, averaged 3.4 percent or \$442,000 annually.

Survey responses also include special criteria established for state funded hangar eligibility. The special criteria include demonstrated project justification including a current aircraft hangar waiting list; ensuring all airside demand (safety and pavement conditions) are currently met; having the project on an FAA approved Airport Layout Plan; and ensuring that project revenue is collected and deposited in a dedicated airport account. Additionally, the airport must have height restriction ordinances to protect airspace around the airport, and the airport must meet all current state licensing requirements that are in place.

7.2 State Loan Programs

Thirty-seven (37) percent, or 15 state respondents, indicate they have loan programs available to assist with hangar funding. **Table 7-1** provides loan program summaries for each state respondent. Loan programs range from two (2) states with hangar only revolving loans to six (6) states with loans covering additional aviation infrastructure and to seven (7) states with broader transportation and statewide infrastructure banks.



Hangar and aviation infrastructure loan programs are typically administered by the state aviation office or commission. Transportation and Statewide Infrastructure Banks (SIBs) are administered by a state’s Department of Transportation or another state-level financing agencies.

Table 7-1: Summary of State Loan Programs for Hangar Development

State Survey Respondent	Eligible Projects	Interest Rate	Estimated Available Loan Funding	Max. Term (Years)	Loan Caps
California CalTrans - Aeronautics Program	Airport Infrastructure	GO Bond Rate	\$3,000,000	17	None
Colorado DOT - Division of Aeronautics	Transportation Infrastructure	3.50%	\$12,381,150	10	None
Florida DOT – Aviation Office	State Infrastructure Bank	4.0%	\$203,000,000	30	None
Michigan DOT – Aeronautics	Airport Infrastructure	3.40%	\$2,200,000	10	\$100,000
Minnesota DOT - Office of Aeronautics	Hangars Only	0%	\$2,139,375	20	None
Missouri DOT – Aviation Program	Transportation Infrastructure	Variable	\$1,000,000	15	\$1,000,000
Montana DOT - Aeronautics Division	Airport Infrastructure	1/2 Prime	\$350,000	10	Sponsor's share of project cost
North Dakota Aeronautics Commission	State Infrastructure Bank	2.00%	\$20,000,000	30	None
Nebraska DOT - Division of Aeronautics	Hangars Only	0%	\$1,933,260	20	\$ 1,000,000
New Hampshire DOT – Bureau of Aeronautics	Airport Infrastructure		\$2,000,000	20	\$750,000
Ohio DOT - Office of Aviation	State Infrastructure Bank	3.0%	Variable	30	None
Oklahoma Dept. of Aviation & Aeronautics	Airport Infrastructure	Variable	Variable	20	\$600,000
Pennsylvania DOT - Bureau of Aviation	Transportation Infrastructure	Variable	\$30,000,000	10	None
Washington State DOT - Aviation Division	Airport Infrastructure	2.0%	\$2,500,000	20	\$1,200,000
Wyoming DOT - Aeronautics Division	State Infrastructure Bank	4.50%	\$175,000,000	25	None

Source: Results of survey of other states conducted with NASAO assistance

As **Table 7-1** shows, very few states have loan programs that are focused solely on hangar development. States report their interest rates for hangar loan programs range from 0 percent to 4.5 percent; repayment terms range from 10 to 30 years; and caps on loan amounts generally range from \$500,000/\$1.2 million to no cap. Fund balances, for most state hangar loan programs, are approximately \$2 million. Outliers include balances in SIBs in Colorado, North Dakota, Pennsylvania, and Wyoming at \$12 million, \$20 million, \$30 million, and \$175 million, respectively. Input from responding states concludes that while there are some states that are more aggressive in financially supporting hangar development, Georgia’s approach is consistent with approximately 66 percent of the states responding to the survey.

The most significant takeaway from interviews with states administering these programs is the need to ensure a sufficient loan payback period and low interest rates in order to service the debt with revenues generated from hangar rentals.

Appendix A provides more information on hangar funding practices and policies in other states that participated in this study’s survey effort.

8. Summary of Recommendations from Best Practices Guide

As a part of the Statewide Hangar Inventory and Demand Analysis, a best practices guide for managing airport hangars was developed (this guide is available from GDOT). This guide serves as an important tool to aid airport sponsors in hangar management and development. The guide provides a review of FAA compliance requirements related to leasing hangars, along with examples of hangar lease agreements. Additionally, it provides industry best practices for determining fair market value lease rates, setting the length for a lease, and establishing reversionary interest in non-airport owned hangars. Templates and checklists are also included to assist the airport sponsor in formulating and maintaining aircraft hangar waiting lists. The guide also provides information on conducting periodic hangar inspections per recommended policy. The guide is synthesized from sources which include the FAA, Airport Cooperative Research Program (ACRP) publications, and results of interviews with industry professionals and other state aviation program personnel who were contacted during the preparation of this study.

9. Summary of Findings from Statewide Hangar Inventory and Demand Analysis

Research completed as part of this analysis provides a comprehensive report on hangar supply and demand for all 102 study airports in Georgia. The study documented 1,293 hangar structures throughout Georgia and estimated that when considering all storage structures, there are currently an estimated 4,820 parking spaces available for aircraft storage. This study's snapshot of current conditions indicates that an estimated 47 percent of all hangar structures are owned by one of the study airports, while the remaining 53 percent are owned by others. The age of the state's current hangar storage structures dates back to 1937, with new structures currently coming online at airports such as Newnan-Coweta County, West Georgia Regional, Atlanta Speedway Airport, and many others. The condition of Georgia's current hangar structures varies, with some three percent of the structures being identified as failed. An estimated 85 percent of all existing hangar structures are, however, rated by airport representatives as being in good to excellent condition. The average age for the 1,293 hangar structures at all study airports is estimated at 30 years. On the optimistic side, the life span of a hangar, if the quality of construction was high and the structure is well maintained, is reported at 50 years.

A collection of hangar waiting lists for all study airports shows an unfiltered statewide hangar waiting list of 2,397 aircraft owners. However, further investigation of this unfiltered statewide hangar waiting list indicates there are duplicate entries and that some are out of date in terms of their interest. Study analysis did identify that statewide 1,405 aircraft owners currently can be substantiated as waiting for hangar storage. Many aircraft in this estimate are aircraft already based at study airports that are waiting for hangar storage. The remainder are aircraft owners wishing to move to one of the study airports from out of state, owners planning to purchase aircraft, second home or seasonal Georgia residents seeking aircraft storage, or aircraft now based at a privately owned non-study airport.

Most airports have planned hangar development, as per their most current ALP. Study analysis indicates that if new hangars are constructed to address all current unmet demand, the estimated cost would likely exceed \$450 million in present dollars. The cost to replace all airport owned hangars that are currently described as "failed" is an additional \$11.8 million. As study results show, demand for hangar storage will continue to grow and construction costs will continue to escalate on an annual basis.

Current sources for funding hangar development in Georgia are typical to those found in many other states. This was the conclusion of a survey conducted with other states on their practices and policies for funding hangar construction. There are, however, some states that provide funding sources for hangar development either through grants, loans, or both. More information on this topic is available in **Appendix A**. Given the magnitude of the investment needed to address identified demand and the wide variety and size of airports in the Georgia airport system, there is not just one approach or solution to addressing the state's need for hangar development. In an earlier section of this report, **Table 3-1** summarized funding options that are most accessible to each type of airport based on its size and level of activity.

The study also discovered that there are opportunities for improvement as they relate to how airports manage hangars, how they establish rental rates, how they establish leases, and how they track hangar demand. A best practice guide on these and other hangar related topics is available from GDOT.

This study demonstrates there is current unmet demand for aircraft hangar storage in Georgia that is significant. An estimated 1,405 aircraft owners are currently seeking hangar storage at one of the study

airports. Lack of funding for airports to build new hangars is one factor contributing to the hangar shortage. Research completed in this study indicates that funding from local, state, and private sources will be needed to fully address Georgia's demand for aircraft storage.

As this study documented, 25 other states have either a loan or a grant program that provides access to funds for hangar development. The parameters of these programs vary greatly in their magnitude, scope, and conditions that must be met to participate in each program. While current practices in Georgia related to hangar funding are similar to many states that do not have specific loan or grant programs for airport infrastructure, there are opportunities for Georgia to explore either a loan and/or a grant program to fund hangar construction. Such a program would be particularly beneficial to smaller/rural general aviation airports that have more limited options for either public or private funding options for hangar development.

To construct new hangar storage facilities to accommodate the demand for 1,405 additional spaces, the cost is estimated at \$450 million. At the same time, an estimated \$11.8 million is needed to replace existing airport owned aircraft storage hangars that are reported as being in failed condition. Funding options that could be considered to meet unmet demand for hangar storage include increasing state funding and expanding eligibility for revenue producing projects such as hangars; promoting better understanding and use of existing local funding sources; and/or establishing a state revolving loan program that funds hangar construction. This study also provides guidance to help airports better understand how to manage their hangar assets and to help airports be a part of the solution by charging hangar rental rates that are sufficient to cover the cost of amortizing loans for hangar construction.

APPENDIX A – SUMMARY OF STATE AVIATION PROGRAMS’ HANGAR FUNDING POLICY SURVEY

Background

As part of the 2023 Georgia Statewide Hangar Inventory and Demand Analysis, a survey, conducted with support from the National Association of State Aviation Officials (NASAO), allows GDOT to evaluate and compare its current aircraft hangar funding policies alongside those of other state aviation programs. The survey also provides an opportunity to identify best practices and programmatic guidelines currently in use by other states.

The survey investigates three areas relative to state funding programs for hangars:

1. State matching funds for federally funded hangar projects.
2. State funding for non-federal hangar projects.
3. Special state sponsored loan programs for hangar development projects.

Detailed survey questions explore these three areas. A copy of the survey that supported this outreach effort is provided in **Attachment A-1**. Specifically the survey requests the following information:

4. Name of State Aviation Agency responding to survey.
5. What was the total amount of state aviation program funding for your state in FY23 or your last fiscal year, and the amount of this funding granted to general aviation and commercial service airports?
6. Does your state provide state matching funds for FAA AIP grants for hangar construction on general aviation airports? If yes,
 - a. What is the percentage of the state match relative to the total project cost?
7. Does your state provide funding assistance for projects to construct hangars on general aviation airports and/or commercial service airports, i.e., no federal funding involved; state-funded project only?
 - a. If so, what is the percentage of the state funding relative to the total project cost for hangars on general aviation airports?
 - b. What was the average state funding awarded for hangar projects at general aviation airports during the past five years?
 - c. What is the percentage of the state funding relative to total project cost for hangar projects at commercial service airports?
 - d. What was the average state funding awarded for hangar projects at commercial service airports during the past five years?
8. Are there any special criteria established by the state that airports must comply with to be eligible for hangar funding? i.e., all airside needs have been met, etc.
 - a. If yes, please list any special criteria.
9. Does your state have a loan program for hangar construction?
 - a. Are there any special eligibility requirements for airports to participate in the loan program? If so, please provide details.
 - b. What is the annual amount of available funding for the hangar loan program?
 - c. What is the interest rate for the loan program?
 - d. What is the term of repayment for the hangar loan program?

- e. Are there any caps established for the amount of an individual hangar loan? If so, what is the amount of the cap?
 - f. Please provide any additional details relative to the hangar loan program, including any special terms and conditions.
10. Does your state have any other special funding programs specifically for funding hangar construction and/or hangar rehabilitation?
- a. If so, does this program include a set amount of funding each fiscal year for hangar projects?
 - b. If not, how are hangar projects prioritized to compete for funding?
 - i. Are there any special eligibility requirements for airports to participate in the special hangar funding program? If so, please provide additional details.
11. Please upload any programmatic/policy and standards guidance developed by the state relative to hangar funding and loan programs for hangars, as applicable.
12. Provide any additional information or comments.
13. Name and email address of respondent completing the survey.

At present, GDOT currently provides state matching funds for FAA AIP grants as outlined in its *Airport Aid Program Policies and Standards Guide*. The state provides funding for 50 percent of the non-federal share for federally funded hangar construction projects. The amount of state funding is typically a five percent share of the total project cost, which is combined with a 90 percent federal share and a five percent local share. The State Airport Aid Program provides 75 percent state funding combined with a 25 percent local match for eligible projects. However, revenue producing projects, including hangars, are not currently eligible for funding under this state program for either general aviation or commercial service airports.

The survey analysis reviews 46 state programs with 41 states responding directly to the survey. In follow up interviews, it is determined that five states including Alaska, Delaware, Hawaii, Rhode Island and Vermont own and operate their states' primary public airport system and do not administer traditional state aid to airports funding programs.

Survey Analysis

Fiscal Year 2023 State Aviation Funding

To assist GDOT in determining the relative scope and scale of other state aviation funding programs, survey responses provide the total amount of fiscal year 2023 (FY23) state aviation program funding, along with the amount of grants to general aviation and commercial service airports. Additionally, this information is utilized in later survey analysis to determine the relative percentage of total program funds granted for hangar development projects. FY23 state aviation program funding responses are summarized in **Table A-1**. Georgia's fiscal year 2023 funding of approximately \$46 million ranks fourth among responding states. Florida's funding ranks first, at nearly \$355 million annually, followed by North Carolina and Tennessee at \$206 million and \$110 million, respectively.

State aviation programs across the country are defined by unique characteristics which include but are not limited to their statutory authority, the number of airports in their system, grant funding programs, and annual appropriations. To provide additional context, relative to state aviation program funding, **Table A-2** published in the FAA's *National Plan of Integrated Airport Systems (NPIAS) for FY2023-FY2027*, lists the total number of airports in each state subcategorized by private-use, public-use, and NPIAS airports. Georgia and

Ohio are tied for the fifth place ranking with 97 NPIAS airports each. Alaska ranks first with 249, followed by Texas with 210, California with 188, and Florida with 100 NPIAS airports. Closely mirroring Georgia and Ohio are Michigan and Minnesota with 95 and 96 NPIAS airports, respectively.

Table A-1: Summary of Fiscal Year 2023 State Aviation Program Funding

No.	State	State Aviation Agency Respondent	FY23 Program Funding	FY23 General Aviation Airport Funding	FY23 Commercial Service Airport Funding
1	Florida	FDOT - Aviation Office	\$354,709,475	\$243,000,000	\$111,000,000
2	North Carolina	NCDOT - Division of Aviation	\$205,928,160	\$80,332,160	\$108,096,000
3	Tennessee	TDOT Aeronautics Division	\$110,000,000	\$28,500,000	\$81,900,000
4	South Carolina	South Carolina Aeronautics Commission	\$46,089,549	DNA*	DNA*
5	Georgia	GDOT - Aviation Programs	\$44,581,311	\$43,744,819	\$836,482
6	Virginia	Virginia Department of Aviation	\$35,747,643	\$17,675,805	\$21,068,224
7	Louisiana	Louisiana DOTD - Aviation Division	\$27,900,000	\$9,569,999	\$18,330,001
8	Pennsylvania	PennDOT - Bureau of Aviation	\$27,500,000	\$19,200,000	\$8,300,000
9	Kentucky	Kentucky Department of Aviation	\$23,584,061	\$17,487,506	\$1,000,000
10	Minnesota	MnDOT - Office of Aeronautics	\$20,769,952	\$15,860,776	\$4,909,176
11	North Dakota	North Dakota Aeronautics Commission	\$20,265,368	\$6,178,463	\$14,086,905
12	Texas	TxDOT - Aviation Division	\$20,000,000	\$5,000,000	DNA*
13	Colorado	CDOT - Division of Aeronautics	\$15,636,369	\$7,686,228	\$7,950,141
14	Massachusetts	MassDOT - Aeronautics Division	\$14,600,000	\$6,791,060	\$6,058,940
15	Wisconsin	WisDOT - Bureau of Aeronautics	\$10,300,000	\$4,300,000	\$2,600,000
16	Missouri	MoDOT - Aviation Program	\$10,000,000	\$1,000,000	\$431,000
17	Wyoming	WYDOT - Aeronautics Division	\$8,611,072	\$2,575,826	\$3,371,857
18	Iowa	Iowa DOT - Aviation	\$8,300,000	\$3,800,000	\$3,500,000
19	Ohio	Ohio DOT - Office of Aviation	\$7,485,000	\$6,985,000	\$500,000
20	Illinois	Illinois DOT - Aviation Program	\$5,000,000	\$2,900,000	\$2,100,000
21	Utah	UDOT - Division of Aeronautics	\$4,978,976	\$4,978,976	\$0
22	Alabama	ALDOT - Aeronautics Bureau	\$4,100,000	\$3,315,000	\$785,000
23	New Jersey	NJDOT - Bureau of Aeronautics	\$4,000,000	\$3,400,000	\$600,000
24	Maryland	Maryland Aviation Administration	\$3,500,000	\$3,484,536	\$132,777
25	Montana	MTDOT - Aeronautics Division	\$3,350,000	\$1,947,425	\$495,342
26	Michigan	Michigan DOT - Aeronautics	\$3,200,000	\$2,500,000	\$700,000
27	Oregon	Oregon Department of Aviation	\$3,100,000	\$2,308,000	\$515,000
28	Indiana	Indiana DOT - Office of Aviation	\$3,043,199	\$1,627,464	\$1,415,735
29	Washington	WashDOT - Aviation Division	\$2,705,497	\$1,958,290	\$747,207
30	Maine	Maine DOT - Airports and Aviation	\$2,500,000	\$1,459,000	\$1,041,000
31	West Virginia	WVDOT - Aeronautics Division	\$1,535,640	\$846,978	\$688,662
32	Idaho	Idaho DOT - Division of Aeronautics	\$1,000,000	\$566,513	\$97,500

No.	State	State Aviation Agency Respondent	FY23 Program Funding	FY23 General Aviation Airport Funding	FY23 Commercial Service Airport Funding
33	Nevada	NVDOT - Aviation Program	\$1,000,000	\$1,000,000	\$0
34	South Dakota	SDDOT - Office of Aeronautics	\$935,000	\$286,951	DNA*
35	Nebraska	NDOT - Division of Aeronautics	\$926,100	\$926,100	\$0
36	New Hampshire	NHDOT - Bureau of Aeronautics	\$225,000	\$225,000	\$0
		*DNA - Data Not Available			

Source: NASAO survey responses.

Table A-2: FAA Summary of State Airports by Category

State	Total Airports	Private Use	Public Use	Total Existing NPIAS Airports
Alabama	322	235	87	73
Alaska	762	371	391	249
American Samoa	3		3	3
Arizona	299	221	78	59
Arkansas	311	212	99	76
California	889	643	246	188
Colorado	457	381	76	49
Connecticut	123	100	23	11
Delaware	41	29	12	4
District of Columbia	13	12	1	
Florida	910	779	131	100
Georgia	462	357	105	97
Guam	4	3	1	1
Hawaii	46	32	14	15
Idaho	303	176	127	36
Illinois	692	587	105	83
Indiana	520	393	127	65
Iowa	297	178	119	79
Kansas	385	245	140	80
Kentucky	266	208	58	55
Louisiana	502	430	72	55
Maine	218	149	69	35
Maryland	221	186	35	18
Massachusetts	225	186	39	26
Michigan	490	259	231	95
Minnesota	468	321	147	96
Mississippi	237	157	80	73
Missouri	504	380	124	76
Montana	304	177	127	71
Nebraska	239	157	82	72
Nevada	139	91	48	30
New Hampshire	186	161	25	15
New Jersey	316	275	41	24
New Mexico	171	105	66	50
New York	537	405	132	77
North Carolina	491	380	111	72
North Dakota	283	194	89	54
Northern Mariana Islands	11	6	5	4
Ohio	635	481	154	97
Oklahoma	477	342	135	99
Oregon	429	328	101	54
Pennsylvania	726	604	122	63
Puerto Rico	50	40	10	10
Rhode Island	22	15	7	6
South Carolina	211	145	66	52
South Dakota	190	120	70	58
Tennessee	343	265	78	69
Texas	2080	1686	394	210
Utah	168	122	46	35
Vermont	93	77	16	12
Virgin Islands	8	6	2	2
Virginia	432	365	67	47
Washington	548	415	133	64
West Virginia	122	88	34	23
Wisconsin	548	422	126	87
Wyoming	124	82	42	33
Grand Total	19,853	14,784	5,069	3,287

Source: FAA National Plan of Integrated Airport Systems (2023-2027)

State Matching Funds for Federally Funded Hangar Projects

Like Georgia, 30 states responding to this survey question indicate they provide a state match for federally funded hangar projects. Twenty-two (22) of the 30 states indicate the amount of the state match is 50 percent of the non-federal share of the project or five (5) percent of the project cost. Three states, Florida, Louisiana, and Oregon provide a 10 percent match on these projects. The remaining five states provide a state matching share ranging from two and one-half percent to eight percent. Responses for the 40 states are summarized in **Table A-3**.

Table A-3: State Responses – Federal Matching Funds for Hangars

No.	State	State Aviation Agency Respondent	Does State Provide Federal Match for Hangars?	Percent Federal Match
1	Connecticut	Connecticut Airport Authority	No	0%
2	Iowa	Iowa DOT - Aviation	No	0%
3	Massachusetts	MassDOT - Aeronautics Division	No	0%
4	Missouri	MoDOT - Aviation Program	No	0%
5	North Carolina	NCDOT - Division of Aviation	No	0%
6	Nebraska	NDOT - Division of Aeronautics	No	0%
7	South Dakota	SDDOT - Office of Aeronautics	No	0%
8	Texas	TxDOT - Aviation Division	No	0%
9	Washington	WashDOT - Aviation Division	No	0%
10	Wisconsin	WisDOT - Bureau of Aeronautics	No	0%
11	Alabama	ALDOT - Aeronautics Bureau	Yes	5%
12	California	CalTrans Aeronautics Program	Yes	5%
13	Colorado	CDOT - Division of Aeronautics	Yes	5%
14	Florida	FDOT - Aviation Office	Yes	10%
15	Georgia	GDOT - Aviation Programs	Yes	5%
16	Idaho	Idaho DOT - Division of Aeronautics	Yes	5%
17	Illinois	Illinois DOT - Aviation Program	Yes	5%
18	Indiana	Indiana DOT - Office of Aviation	Yes	5%
19	Kentucky	Kentucky Department of Aviation	Yes	5%
20	Louisiana	Louisiana DOTD - Aviation Division	Yes	10%
21	Maryland	Maryland Aviation Administration	Yes	5%
22	Maine	Maine DOT - Airports and Aviation	Yes	5%
23	Michigan	Michigan DOT - Aeronautics	Yes	5%
24	Minnesota	MnDOT - Office of Aeronautics	Yes	5%
25	Montana	MTDOT - Aeronautics Division	Yes	2.5%
26	North Dakota	North Dakota Aeronautics Commission	Yes	5%
27	New Hampshire	NHDOT - Bureau of Aeronautics	Yes	5%
28	New Jersey	NJDOT - Bureau of Aeronautics	Yes	5%
29	Nevada	NVDOT - Aviation Program	Yes	6.25%

No.	State	State Aviation Agency Respondent	Does State Provide Federal Match for Hangars?	Percent Federal Match
30	New York	NYDOT - Aviation Bureau	Yes	5%
31	Ohio	Ohio DOT - Office of Aviation	Yes	5%
32	Oklahoma	Oklahoma Dept. Aerospace & Aeronautics	Yes	5%
33	Oregon	Oregon Department of Aviation	Yes	10%
34	Pennsylvania	PennDOT - Bureau of Aviation	Yes	5%
35	South Carolina	South Carolina Aeronautics Commission	Yes	5%
36	Tennessee	TDOT Aeronautics Division	Yes	5%
37	Utah	UDOT - Division of Aeronautics	Yes	4.685%
38	Virginia	Virginia Department of Aviation	Yes	8%
39	West Virginia	WVDOT - Aeronautics Division	Yes	5%
40	Wyoming	WYDOT - Aeronautics Division	Yes	6%

Source: NASAO survey responses

State Funding for Hangar Projects

Survey responses indicate 17 state respondents provide grant funding for hangar projects at general aviation airports. Of these states, Kentucky, Michigan, North Dakota, and Utah report that while providing hangar grants to general aviation airports, they do not provide funding eligibility for hangar development at commercial service airports. This brings the total percentage of states providing hangar funding at commercial service airports to 33 percent.

For states whose programs provide state funding for hangar development, with no federal participation, state funding participation ranges from five percent to 90 percent. State programs in Kentucky and Louisiana are considered outliers, providing state funding at 100 percent of the cost for hangar construction. **Table A-4** summarizes state funding participation for general aviation airports and **Table A-5** summarizes state funding participation for commercial service airports. The percentage of state funds expended on non-federal hangar projects at general aviation and commercial service airports, compared to the total annual state program funding, averages 3.4 percent or \$442,000 and is summarized in **Table A-6**.

Six states, including Colorado, Maine, Michigan, New Hampshire, Utah, and West Virginia, indicate that while hangars are eligible for state funding, they did not issue grants in any of the previous five years. According to survey responses and interviews with state aviation staff, the amount of state program funding available and the lower project priority ranking for hangars makes it difficult, if not impossible, to allocate funding to these projects.

Survey responses also include special criteria established for state funded hangar eligibility. Special criteria that are generally consistent across all programs include:

- Demonstrating project justification including a current aircraft hangar waiting list.
- Ensuring all airside demand, including safety and pavement conditions, are currently met.
- Having the project on an FAA approved Airport Layout Plan.
- Ensuring that project revenue is collected and deposited in a dedicated airport account.

- Meeting height restriction ordinances to protect airspace around the airport.
- Complying with all current state licensing requirements.

North Dakota indicates that they require a business plan. In addition to the other criteria listed above Texas also requires establishing a fair market value lease and rate structure along with the adoption of airport minimum standards.

Table A-4: State Funding for Hangars at General Aviation Airports

No.	State	State Aviation Agency Respondent	% Participation on General Aviation Airports	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1	Alabama	ALDOT - Aeronautics Bureau	50%	\$500,000	\$0	\$1,278,000	\$1,795,000	\$0
2	Colorado	CDOT - Division of Aeronautics	90%	\$0	\$0	\$0	\$0	\$0
3	Iowa	Iowa DOT - Aviation	Up to 85%	731,000\$	\$785,000	\$531,000	\$593,000	\$1,000,000
4	Florida	FDOT - Aviation Office	50%	DNA	DNA	DNA	DNA	\$12,753,000
5	Kentucky	Kentucky Department of Aviation	100%	\$655,658	\$3,443,056	\$1,176,580	\$800,000	\$0
6	Louisiana	Louisiana DOTD - Aviation Division	100%	\$90,500	\$703,629	\$749,800	\$2,390,015	\$225,500
7	Maine	Maine DOT - Airports and Aviation	5%	\$0	\$0	\$0	\$0	\$0
8	Michigan	Michigan DOT - Aeronautics	DNA*	\$0	\$0	\$0	\$0	\$0
9	New Hampshire	NHDOT - Bureau of Aeronautics	Up to 80%	\$0	\$0	\$0	\$0	\$0\$
10	New York	NYDOT - Aviation Bureau	80%	\$1,074,204	\$0	\$0	\$418,808	\$0
11	North Dakota	North Dakota Aeronautics Commission	30%	\$41,158	\$27,785	\$340,250	\$85,953	\$115,168
12	Oklahoma	Oklahoma Dept. Aerospace & Aeronautics	40%	\$0	\$0	\$0	\$2,000,000	\$18,000,000
13	Oregon	Oregon Department of Aviation	10%	\$0	\$0	\$0	\$0	\$882,700
14	Pennsylvania	PennDOT - Bureau of Aviation	50%	\$200,000	\$500,000	\$300,000	\$3,300,000	\$600,000
15	Tennessee	TDOT Aeronautics Division	5%	\$10,825	\$38,000	\$2,000	\$0	\$0
16	Utah	UDOT - Division of Aeronautics	90%	\$0	\$0	\$0	\$0	\$0
17	West Virginia	WVDOT - Aeronautics Division	2.5-5%	\$0	\$0	\$0	\$0	\$0

*DNA: Data Not Available

Source: NASAO survey analysis

Table A- 5: States' Funding for Hangars on Commercial Service Airports

No.	State	State Aviation Agency Respondent	% Participation Commercial Service Airports	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1	Alabama	ALDOT - Aeronautics Bureau	50%	\$0	\$0	\$0	\$0	\$0
2	Colorado	CDOT - Division of Aeronautics	5%	\$0	\$0	\$0	\$0	\$0
3	Florida	FDOT - Aviation Office	50%	DNA	DNA	DNA	DNA	\$1,300,000
4	Iowa	Iowa DOT - Aviation	Variable	\$240,000	\$295,000	\$128,000	\$663,000	\$497,000
5	Maine	Maine DOT - Airports and Aviation	5%	\$0	\$0	\$0	\$0	\$0
6	New Hampshire	NHDOT - Bureau of Aeronautics	80%	\$0	\$0	\$0	\$0	\$0

No.	State	State Aviation Agency Respondent	% Participation Commercial Service Airports	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
7	New York	NYDOT - Aviation Bureau	70%	\$12,823,774	\$106,916	\$0	\$1,763,960	\$0
8	Oregon	Oregon Department of Aviation	10%	\$0	\$0	\$0	\$0	\$230,900
9	Pennsylvania	PennDOT - Bureau of Aviation	50%	\$2,800,000	\$1,300,000	\$3,000,000	\$800,000	\$2,600,000
10	Tennessee	TDOT Aeronautics Division	95%	\$128,000	\$3,700,000	\$597,000	\$0	\$0
11	Virginia	Virginia Department of Aviation	80%	\$28,000	\$103,000	\$200,000	\$0	\$0
12	West Virginia	WV DOT - Aeronautics Division	5%	\$0	\$0	\$0	\$0	\$0

*DNA: Data Not Available

Source: NASAO survey analysis

Table A-6: Percentage of State Funds Expended on Hangars as Compared to Total Annual Funding Program

No.	State	State Aviation Agency Respondent	Average annual Percent of Total State Program Funding (FY 2023)	Average Annual Hangar Funding
1	Alabama	ALDOT - Aeronautics Bureau	0.17%	\$714,600
2	Colorado	CDOT - Division of Aeronautics	0%	\$0
3	Florida	FDOT - Aviation Office	DNA	DNA
4	Iowa	Iowa DOT - Aviation	0.09%	\$728,000
5	Kentucky	Kentucky Department of Aviation	0.05%	\$1,215,059
6	Louisiana	Louisiana DOTD - Aviation Division	0.03%	\$813,789
7	Maine	Maine DOT - Airports and Aviation	0%	\$0
8	Michigan	Michigan DOT - Aeronautics	0%	\$0
9	New Hampshire	NH DOT - Bureau of Aeronautics	0%	\$0
10	New York	NYDOT - Aviation Bureau	0%	\$298,602
11	North Dakota	North Dakota Aeronautics Commission	0.01%	\$122,063
12	Oklahoma	OK Dept. Aerospace & Aeronautics	DNA	\$4,000,000
13	Oregon	Oregon Department of Aviation	0.06%	\$176,540
14	Pennsylvania	PennDOT - Bureau of Aviation	0.04%	\$980,000
15	Tennessee	TDOT Aeronautics Division	0%	\$10,165
16	Utah	UDOT - Division of Aeronautics	0%	\$0
17	West Virginia	WV DOT - Aeronautics Division	0%	\$0

*DNA: Data Not Available

Source: NASAO survey analysis

Special State Funding Programs for Hangars

Iowa and Florida note in their survey responses two additional state programs providing eligibility for hangar projects. Iowa’s Commercial Service Vertical Infrastructure (CSVI) program provides funding for landside development and renovation of terminals, hangars, maintenance buildings, and fuel facilities at commercial service airports. Funds in Iowa are distributed to the commercial service airports by formula, with one half of the funds allocated equally between each airport, 40 percent of the funds are allocated based on passenger enplanements and 10 percent of the funds are allocated based on air cargo tonnage. There is no local match requirement for these funds in Iowa.

Florida indicates that its Rural Economic Development Initiative (REDI) program is especially helpful to their small general aviation airports in rural areas and in economically distressed counties. This program allows the Florida Department of Transportation (FDOT) to fund 100 percent of the non-federal share of aviation projects, including hangars. For general aviation airports without a REDI designation, FDOT covers up to 50 percent the of hangar development costs under FDOT’s regular funding program.

State Loan Programs for Hangars

Fifteen (15) state respondents, indicate they have loan programs available to assist with hangar funding. **Table A- 7** provides loan program summaries for each state respondent. Loan programs range from two (2) states with hangar only revolving loans to six (6) states with loans covering additional aviation infrastructure and seven (7) states with broader transportation and statewide infrastructure banks. Hangar and aviation infrastructure loan programs are typically administered by the state aviation office or commission. Transportation and Statewide Infrastructure Banks (SIBs) are administered by state’s Department of Transportation or another state-level financing agencies.

Table A-7: Summary of State Hangar Loan Programs

State Survey Respondent	Eligible Projects	Interest Rate	Estimated Available Loan Funding	Max Term (Years)	Loan Caps
California CalTrans - Aeronautics Program	Airport Infrastructure	GO Bond Rate	\$3,000,000	17	None
Colorado DOT - Division of Aeronautics	Transportation Infrastructure	3.50%	\$12,381,150	10	None
Florida DOT – Aviation Office	State Infrastructure Bank	4.0%	\$203,000,000	30	None
Michigan DOT – Aeronautics	Airport Infrastructure	3.40%	\$2,200,000	10	\$100,000
Minnesota DOT - Office of Aeronautics	Hangars Only	0%	\$2,139,375	20	None
Missouri DOT – Aviation Program	Transportation Infrastructure	Variable	\$1,000,000	15	\$1,000,000
Montana DOT - Aeronautics Division	Airport Infrastructure	1/2 Prime	\$350,000	10	Sponsor's share of project cost
North Dakota Aeronautics Commission	State Infrastructure Bank	2.00%	\$20,000,000	30	None
Nebraska DOT - Division of Aeronautics	Hangars Only	0%	\$1,933,260	20	\$ 1,000,000
New Hampshire DOT – Bureau of Aeronautics	Airport Infrastructure	Variable	\$2,000,000	20	\$750,000
Ohio DOT - Office of Aviation	State Infrastructure Bank	3.0%	Variable	30	None
Oklahoma Dept. of Aviation & Aeronautics	Airport Infrastructure	1.8%	Variable	20	\$600,000
Pennsylvania DOT - Bureau of Aviation	Transportation Infrastructure	Variable	\$30,000,000	10	None
Washington State DOT - Aviation Division	Airport Infrastructure	2.0%	\$2,500,000	20	\$1,200,000
Wyoming DOT - Aeronautics Division	State Infrastructure Bank	4.50%	\$175,000,000	25	None

Source: NASAO survey analysis

As **Table A-7** shows, very few states have loan programs that are focused solely on hangar development. States report their interest rates for hangar loan programs range from 0 percent to 4.5 percent; repayment terms range from 10 to 30 years; and caps on loan amounts generally range from \$0 to \$1.2 million. Fund balances, for most state hangar loan programs, are approximately \$2 million. Outliers include balances in State Investment Banks (SIBs) in Colorado, North Dakota, Pennsylvania, and Wyoming at \$12 million, \$20 million, \$30 million, and \$175 million, respectively. Input from responding states concludes that while there are some states that are more aggressive in financially supporting hangar development, Georgia’s approach is consistent with approximately 66 percent of the states responding to the NASAO survey conducted as part of Georgia’s Hangar Inventory and Demand Analysis.

Analysis of hangar loan program documentation from responding states revealed varying levels of details and programmatic requirements. While the majority of state-sponsored loan programs are codified in statute, two programs in Nebraska and Pennsylvania appear to be carried out under the broad authority granted to the state’s Department of Transportation or Aeronautics Commission.

The following information, for the 15 states with hangar loan programs, lists the primary data collected from the responses to the NASAO survey and highlights additional programmatic guidelines for loan eligibility and loan application evaluation criteria. The level of detail in the summaries for each state below is consistent with the level of detail contained in program guidance documents and enabling legislation, if applicable. The most significant take away from interviews with states administering these programs is the need to ensure a sufficient loan payback period in order to service the debt with revenues generated from hangar rentals.

California – Local Airport Loan Program

<i>Eligible Projects</i>	<i>Airport Infrastructure</i>
<i>Interest Rate</i>	G.O. Bond Rate
<i>Available Loan Funding</i>	\$3,000,000
<i>Maximum Terms</i>	17
<i>Loan Caps</i>	None

Administered by CalTrans’ Aeronautics Program, the Local Airport Loan Program provides discretionary state loans to projects that enhance an airport’s ability to provide general aviation services. This includes hangars, general aviation terminals, utilities, fueling facilities, land acquisition, and other capital development projects. Loans may also be used to provide the local share for an FAA AIP grant.

Eligible loan recipients are political subdivisions with a public-use airport. The loan program requires that all airport sponsors meet the following requirements to be eligible:

1. Have adequate height restrictions surrounding the airport to ensure the safety of operations without hazard obstructions.
2. Ensure the airport is open to the public without restriction.
3. Have a current state permit for the airport.
4. Adopt rules that provide for sufficient control for the operation of the airport.
5. Maintain a separate income account for the project. Expenses for maintenance of the project can be paid from the account, but revenues are required to be held in an amount equal to one year’s loan payment.

Link to program guidance – [Airport Loans | Caltrans](#)

Link to enabling legislation - [Browse - California Code of Regulations \(westlaw.com\)](#)

Colorado – State Transportation Infrastructure Bank

<i>Eligible Projects</i>	Transportation Infrastructure
<i>Interest Rate</i>	3.5%
<i>Available Funding</i>	\$12,381,150
<i>Maximum Terms</i>	10
<i>Loan Caps</i>	None
<i>Loan Fees</i>	¼ to 1% based on loan amount
<i>Late Fees</i>	Allowable

The Colorado Department of Transportation administers the Colorado State Transportation Infrastructure Bank (CSIB). Eligible entities include political subdivisions and state agencies. Private companies and non-profit organizations are eligible with a local government partner or under a sanctioned Public-Private Initiative.

Eligible projects include any public or private transportation project authorized by the program. This includes include planning, environmental analysis, feasibility studies, engineering, construction, resurfacing, and rehabilitation or replacement of a public or private transportation facility. Transportation projects restricted to private use are not eligible for funding under the CSIB.

The Review Committee for hangar and other aviation projects consists of one member of the Colorado Aeronautics Board (who chairs the Review Committee), the Director of the Aeronautics Division, the Chief Financial Officer, and the CSIB Manager.

The only noted program criteria for hangar loans is that hangar ownership must be maintained by the airport sponsor. The interest rate is updated twice each year on June 30th and December 31st.

Link to Program Administrative Rules: - [Code of Colorado Regulations \(coloradosos.gov\)](#)

Link to enabling legislation - [crs2021-title-43.pdf \(colorado.gov\)](#)

Florida – State Infrastructure Bank

<i>Eligible Projects</i>	Transportation Infrastructure
<i>Interest Rate</i>	Variable – currently 4%
<i>Initial Capitalization</i>	\$203,000,000
<i>Maximum Terms</i>	30 years + 5-year deferment
<i>Loan Caps</i>	None
<i>Loan Fees</i>	None
<i>Late Fees</i>	None

The Florida Department of Transportation (FDOT) administers a state-funded infrastructure bank (SIB) providing loans to local governments and private entities. The loans are used for constructing and improving transportation facilities or ancillary facilities that produce or distribute natural gas or fuel. Primary loan eligibility requirements include:

1. Project must be included on the state transportation system.
2. Project must be consistent with Metropolitan Planning Organization (MPO) and local government comprehensive plans.
3. Project must provide a dedicated repayment source.

Applications for loans are evaluated against the following criteria:

- Credit worthiness of the project.
- Ability to enhance or create economic benefits.
- Ability to accelerate completion of the project.
- Ability to foster innovative public-private partnerships and attract private debt or equity investments.
- Extent to which new technologies are leveraged.
- Ability of the project to maintain or protect the environment.
- Ability of the project to improve intermodalism, cargo and freight movements, and safety.
- Percentage of local and private participation compared to overall project cost.
- Impact of damage to transportation facilities from disasters with an emergency declaration.

Successful applicants for FDOT SIB loans receive loan funds in the state fiscal year following the year of loan award. This allows FDOT to plan for awarded projects in the department’s work program and to follow the state budget and legislative appropriations process. The program does not allow for reimbursement of expenditures prior to execution of the SIB Loan Agreement.

Link to Program Guidance Documents – [SIB - Background \(fdot.gov\)](#)

Link to Program Guidance Documents - [State Infrastructure Bank \(fdot.gov\)](#)

Link to Application - [sib-loan-applicationb2317d154a254d11a2baf7c643870885.docx \(live.com\)](#)

Link to Enabling Legislation - [Statutes & Constitution :View Statutes : Online Sunshine \(state.fl.us\)](#)

Michigan – Airport Development Loan Program

<i>Eligible Projects</i>	Airport Infrastructure
<i>Interest Rate</i>	3.4%
<i>Available Funding</i>	\$2,200,000
<i>Maximum Terms</i>	10
<i>Loan Caps</i>	\$100,000

Airport development loans are administered by the Michigan Department of Transportation’s Aeronautics Commission for the purpose of assisting counties, cities, townships, and incorporated villages in the construction and improvement of publicly owned airports and landing fields. The state treasurer sets the interest rate for the program in January each year at an amount equal to or less than the statutory cap of 6 percent.

Loans provide 9 percent of the local share of the project cost, up to a maximum amount of \$100,000. Project funding is prioritized first for projects at general aviation airports which upgrade an airport to meet minimum standards. The second priority for funding is given to projects at general aviation airports that are not described as fundamental development. Projects at air carrier/commercial service airports have third priority.

When reviewing applications, the aeronautics commission staff conducts a feasibility study of the proposed project which considers future growth in the airport service area, engineering design of the project, total project cost, financial ability of the airport sponsor to carry out the project, and the term of the loan.

Link to Program Administrative Rule - [Microsoft Word - Airport Development Loans \(michigan.gov\)](#)

Link to Enabling Legislation - [Michigan Legislature - Act 107 of 1969](#)

Minnesota – State Hangar Loan Revolving Account Program

<i>Eligible Projects</i>	Hangars Only
<i>Interest Rate</i>	0%
<i>Available Funding</i>	\$2,139,375
<i>Maximum Terms</i>	20
<i>Loan Caps</i>	None

Minnesota DOT’s State Hangar Loan Revolving Account Program provides 80 percent interest-free loans to state system airports for building new hangars. Initial capitalization of the loan account was \$4,400,000. Criteria for program eligibility requires:

- Airport must be owned by a city, county, or township.
- Airport must be licensed as public use.
- Airport must be identified in the state airport system plan.
- Airport must have adopted or be in the process of adopting zoning standards around the airport that are consistent with Minnesota Statutes Chapter 360 sections 360.061 to 360.074.

To date, according to information provided by the Minnesota DOT’s Office of Aeronautics, more than 75 communities have utilized more than 209 loans to build more than 1,100 aircraft storage hangars since the program’s inception in 1959.

Link to Program Guidance - [Hangar Loan Handout.pdf \(state.mn.us\)](#)

Link to Enabling Legislation - [Sec. 360.305 MN Statutes](#)

Missouri – Statewide Transportation Assistance Revolving Fund

<i>Eligible Projects</i>	Non-Highway Infrastructure
<i>Interest Rate</i>	Equal to municipal borrowing rates
<i>Initial Capitalization</i>	\$2,500,000
<i>Maximum Terms</i>	10 to 15 years
<i>Loan Caps</i>	None
<i>Loan Fees</i>	.15% of loan amt. \$500 min; \$75,000 max
<i>Late Fees</i>	2% of amount due after 15 days

The Statewide Transportation Assistance Revolving (STAR) Fund, authorized by the Missouri General Assembly in 1997, provides loans to local governments and private not-for-profit organizations for the planning, acquisition, and development/construction of facilities for transportation by air, water, rail or mass transit. The loan program is administered by Missouri’s Department of Transportation and applications are approved by the Missouri Highway and Transportation Commission upon an endorsement from the District Engineer and the Multimodal Division and recommendation from their Cost Share Committee. The stated purpose of the STAR Fund is to assist the Commission in achieving continued economic, social, and commercial growth.

STAR Fund applications are ranked based on evaluation criteria that includes economic development, transportation need, and public benefit. Loan terms are generally set at 10 years but can be extended to 15 years upon pre-approval of the agency’s Chief Financial Officer. Although there are no stated loan caps, the amount of a loan is contingent upon availability of funding, project need, and other capital demands at the time of the loan application.

The local government must pledge the gross or net revenues of the project to secure the loan, in addition to securing the loan through one or a combination of the following:

- A voter referendum for a tax dedicated to secure payment of the debt.
- Local bond issuance.
- Certification of sufficiency to meet the obligation through annual appropriations.

Link to program guidance documents - [Statewide Transportation Assistance Revolving \(STAR\) Fund | Missouri Department of Transportation \(modot.org\)](#)

Link to enabling legislation - [Missouri Revisor of Statutes - Revised Statutes of Missouri, RSMo Section 226.191](#)

Montana – Aeronautical Grant and Loan Program

<i>Eligible Projects</i>	Airport Infrastructure
<i>Interest Rate</i>	½ national prime lending rate in January
<i>Available Amount</i>	Up to \$350,000
<i>Maximum Terms</i>	10
<i>Loan Caps</i>	Sponsor's Share of Project Costs

The Aeronautics Division of the Montana Department of Transportation administers the Aeronautical Grant and Loan Program, and awards are reviewed and approved by the Montana Aeronautics Board annually at a public meeting. Eligible applicants for loan awards include any state agency, local government, municipality, or airport authority. Private entities are ineligible for grant and loan awards.

Eligible projects must be aviation or aeronautically related. Loans may be provided for up to and including 100 percent of an applicant's share of total project cost regardless of assistance from federal sources.

Link to Program Guidance Documents - [MDT Aeronautics Division Airport Loan and Grant Program Summary \(mt.gov\)](#)

Link to Program Rules and Regulations - [Subchapter Home: - Administrative Rules of the State of Montana \(mt.gov\)](#)

Link to enabling legislation - [Part 3. Finance - Table of Contents, Title 67, Chapter 1, MCA \(mt.gov\)](#)

North Dakota – Infrastructure Revolving Fund

<i>Eligible Projects</i>	State Infrastructure
<i>Interest Rate</i>	2%
<i>Available Amount</i>	\$20,000,000
<i>Maximum Terms</i>	Lesser of 30 years or useful project life
<i>Loan Caps</i>	\$20,000,000
<i>Loan Fees</i>	Borrower to pay closing costs

The state's Infrastructure Revolving Fund is administered by the Bank of North Dakota and provides loans to political subdivisions for repair, replacement, and new infrastructure projects. Airport infrastructure projects including hangars are eligible. The Bank of North Dakota (BND) is a state-owned and operated financial institution and the only legal depository for all state funds. All profits from the bank are deposited into the state's general fund or are used to support economic development.

Link to Program Guidance - [BND Infrastructure Revolving Loan Fund](#)

Link to Enabling legislation - [North Dakota Century Code t06c09 \(ndlegis.gov\)](#)

Nebraska – Revolving Hangar Loan Program

<i>Eligible Projects</i>	Hangars
<i>Interest Rate</i>	0%
<i>Available Amount</i>	\$1,933,260
<i>Maximum Terms</i>	20
<i>Loan Caps</i>	\$1,000,000

Nebraska’s Revolving Hangar Loan Program was developed by the Nebraska DOT Division of Aeronautics and the Nebraska Aeronautics Commission to increase and improve hangar availability and foster aviation interest and activities across the state. Eligible entities include local governments or authorities operating public-use airports or persons owning privately-owned public-use airports.

Eligible activities include T-hangars, box hangars, ramps, on-airport hangar relocation, and hangar rehabilitations that extend useful life by 20 years. Loans amounts are 80 percent of eligible costs up to a maximum of \$1,000,000 per project. Airport sponsors must ensure:

- The hangar is shown on an approved Airport Layout Plan.
- The airport meets state licensing standards contained in Title 17, Chapter 1 of the Nebraska Administrative Code.
- The hangar meets NDOTs minimum hangar specifications.
- The hangar is insured at replacement value for the life of the loan agreement.
- The hangar is not encumbered or sold during the loan period.
- The hangar remains under airport ownership for 20 years.
- The repayment of the loan balance and a penalty of accrued interest over the entire life of the loan at a 5 percent rate or the rate set at the time of the loan is required for any early transfer of ownership.

Link to loan program guidance document - [REVOLVING HANGAR PROGRAM \(nebraska.gov\)](https://nebraska.gov/revolving-hangar-program)

Link to sample loan agreement - <https://dot.nebraska.gov/media/f2cdrt53/hgragre.doc>

Link to Aeronautics Hangar Specification H40 - <https://dot.nebraska.gov/media/wnvhev1/h40.docx>

New Hampshire – Rural Airport Capital Revolving Loan Fund

<i>Eligible Projects</i>	Airport Improvements
<i>Interest Rate</i>	Variable
<i>Available Amount</i>	\$2,000,000
<i>Maximum Terms</i>	20 years
<i>Loan Caps</i>	\$750,000
<i>Loan Fees</i>	None
<i>Late Fees</i>	None

The Rural Airport Capital Revolving Loan Fund is administered by the New Hampshire DOT’s Bureau of Aeronautics. The loan funds are used to enhance and rehabilitate open-to-the-public general aviation airports in municipalities with populations of 14,000 or less.

Airport sponsors receiving monies from the loan fund must certify that the airport will remain open to the public during the life of the capital improvement. The state retains a lien on the property of the airport until the loan has been repaid.

Link to enabling legislation - [Revised Statutes Online Search \(state.nh.us\)](https://www.gencourt.nh.gov/legislation/Revised-Statutes-Online-Search)

Ohio – State Infrastructure Bank

<i>Eligible Projects</i>	State Infrastructure Bank
<i>Interest Rate</i>	3%
<i>Initial Capitalization</i>	\$137,000,000
<i>Maximum Terms</i>	30 years
<i>Loan Caps</i>	Variable
<i>Loan Fees</i>	Closing Costs

The State Infrastructure Bank (SIB) is a revolving loan program administered by the Ohio Department of Transportation as a funding mechanism for transportation facilities and projects which produce revenue to amortize debt. The loan program is considered a vital state asset to furthering quality of life, economic development, and strengthening global competitiveness. Additionally, the program accelerates the delivery of transportation projects that otherwise would not be considered due to lack of funding.

SIB funds can be used for any portion, up to 100 percent of the cost of the project. Environmental limitations of the program state the project cannot result in the destruction of a historic property or in the taking of a Threatened or Endangered Species.

Amendments to the program in July 2023 allow public entities eligible for the ODOT’s Small City Program to receive loans at 0% interest. The Small City Program is comprised of cities with a population range from 5,000-24,999 that are outside of a Metropolitan Planning Organization’s (MPO) boundary.

Link to program guidance - [State Infrastructure Bank \(SIB\) | Ohio Department of Transportation](https://www.ohio.gov/transportation/state-infrastructure-bank-sib)

Link to program application - [SIB Application \(2021\).docx \(live.com\)](https://www.ohio.gov/transportation/sib-application-2021.docx)

Link to enabling legislation - [Section 5531.09 - Ohio Revised Code | Ohio Laws](https://legisweb.com/ohio/laws/section-5531.09)

Oklahoma – Airport Grant and Loan Program

<i>Eligible Projects</i>	Airport Infrastructure
<i>Interest Rate</i>	1.8%

Eligible Projects	Airport Infrastructure
<i>Available Amount</i>	Variable between \$2-14 Million
<i>Maximum Terms</i>	10 years
<i>Loan Caps</i>	\$600,000

The Oklahoma Department of Aviation and Aeronautics administers a grant and loan program which includes eligibility for hangars. Grants are available at 40 percent of the total cost of the project with loans available for an amount not to exceed 70 percent of the cost. The program also allows for the reimbursement of planning and engineering costs.

The grant and loan program for hangars started in fiscal year 2022 with an initial appropriation of \$2 million. Fiscal year 2023’s appropriation was initially \$4 million, with an added special appropriation of \$14 million. According to the department’s director approximately 10-20 percent of airport sponsors applying for hangar projects utilize the loan program with the remaining 80-90 percent of sponsors opting for the grant program. Airport sponsors are required to:

- Certify and provide evidence it has funds on hand, in a deposit account, to pay their estimated share of the project cost.
- Provide evidence of any other state or federal funding sources.
- Provide detailed project cost estimates and/or bids.
- Certify compliance with FAA standards.
- Certify they are not in default to any state agency for any obligation.
- Certify no awards to state or federally suspended or debarred contractors.
- Construct the project within two years.
- Certify the airport is open to all users and that they will not discriminate.
- Have a current Pavement Management Program.
- Properly maintain the airport.
- Have a current ALP.
- Not grant exclusive rights.
- Submit annual statements of airport revenues and expenses.
- Comply with state statutes governing airport revenue diversion.

Link to Program Guidance Document - [Title 25 Chapter 15 - OAC Grant Program 2022 Emergency Rules.pdf \(oklahoma.gov\)](#)

Link to enabling legislation - [OAC Statutes.pdf \(oklahoma.gov\)](#)

Pennsylvania – Pennsylvania Infrastructure Bank

<i>Eligible Projects</i>	Transportation Infrastructure
<i>Interest Rate</i>	½ Prime Lending Rate
<i>Initial Capitalization</i>	\$30,000,000
<i>Maximum Terms</i>	10 years
<i>Loan Caps</i>	None
<i>Loan Fees</i>	Closing Costs

The Pennsylvania Infrastructure Bank (PIB) is administered by the Pennsylvania Department of Transportation (PennDOT) to provide low-interest loans to fund transportation-related projects. Like other state transportation infrastructure banks, PennDOT considers the primary objectives of the program are to accelerate projects, spur economic development, leverage federal and other state funding, and provide timely response to address disaster-related projects.

Loans are available to finance up to 100 percent of the project cost and there are no application fees. Any entity may borrow from the PIB, as long as the project is eligible for financing under the program. This includes local governments, authorities, economic development agencies, railroads, and private for-profit corporations. Loans do require the applicant to provide a suitable source of security or collateral instrument for repayment.

Link to Program Website - [PA Infrastructure Bank](#)

Link to PIB Program Guidance - [PUB 781.pdf \(state.pa.us\)](#)

Washington - Community Aviation Loan Program

<i>Eligible Projects</i>	Airport Infrastructure
<i>Interest Rate</i>	2%
<i>Initial Capitalization</i>	\$2,500,000
<i>Maximum Terms</i>	20 years
<i>Loan Caps</i>	\$1,200,000

The Community Aviation Loan Program is administered by the Washington Department of Transportation’s Aviation Division. The program provides eligibility to airport owners and operators with less than 75,000 annual commercial enplanements, and the goal of the program is to award at least 75 percent of available loan funds to airports with less than or equal to 50,000 commercial enplanements.

Applications are prioritized based on the project’s ability to create revenue generating opportunities. The project should also stimulate private development or expansion; result in the creation of jobs; improve opportunities for the successful maintenance, operation, or expansion of the airport or adjacent airport business park; result in the creation or retention of long-term economic opportunities; and result in leveraging additional federal funding for the airport.

Loans can be provided for up to 100 percent of the project cost, however, local contribution either in-kind or in cash serve to strengthen an application. To qualify for a loan, the airport owner must:

- Be included in the local jurisdiction’s Comprehensive Plan and/or zoning regulations
- Prevent the construction of any object that would constitute an incompatible land use including height hazards
- Complete all required environmental reviews

- Comply with state competitive bidding requirements and public works projects laws
- Provide assurances relative to good title, preserving rights and powers, consultation with users, public hearings, air and water quality standards, preventative pavement maintenance, accounting system, wage rates, nondiscrimination requirements, equal employment opportunity, veteran’s preference, operation and maintenance, hazard removal and mitigation, fee and rental structure, and airport layout plan
- Commit to provide public access to the airport for a period of time equivalent to one and one-half times the length of the loan.

Link to Program Guidance - [Community Aviation Loan Program Procedures Manual M 3140 \(wa.gov\)](#)

Link to enabling legislation - [RCW 47.68.470: Community aviation revitalization board—Public use general aviation airport loan program. \(wa.gov\)](#)

Wyoming – State Infrastructure Loan Program

<i>Eligible Projects</i>	State Infrastructure
<i>Interest Rate</i>	4.5%
<i>Initial Capitalization</i>	\$175,000,000
<i>Maximum Terms</i>	25 years
<i>Loan Caps</i>	None
<i>Loan Fees</i>	.5% of loan amount

In Wyoming, the State Loan and Investment Board administers loans from the permanent Wyoming Mineral Trust Fund. Eligible applicants include political subdivisions. Loan applicants are required to maintain the project for a reasonable amount of time and be in receipt of all project funding at the time of loan issuance. Criteria considered for award of a loan includes the contribution of the project to health, safety and welfare; the applicant’s need for the project and financial needs of the applicant; and the applicant’s ability to repay the loan.

Adequate security is required for all loans and can include a pledge of project revenues. All loans require a written opinion of the state’s Attorney General certifying the legality of the transaction.

Link to enabling legislation - [Title - 16.docx \(wyoleg.gov\)](#)

Conclusions and Recommendations

Georgia is mainstream in its current position of providing only matching funds for federally funded hangars, relative to other state aviation programs responding to this survey. However, this position does not address the more than \$450 million identified to address the funding needs for hangars to address a demand backlog at the 102 Georgia airports included in this study.

Six states, which include Colorado, Florida, New Hampshire, North Dakota, Oklahoma, and Pennsylvania, currently offer both grant and loan programs for hangars. Analysis of these states’ survey response data and follow up interviews with loan program administrators shows that although loan programs were available, they were utilized infrequently. Airports in these states overwhelmingly opted to participate in grant programs versus loan programs when the option was available.

Should GDOT consider a loan program, careful consideration must be given to the additional requirements associated with creating and administering a loan program. GDOT should determine the benefits of establishing and administering such an in-house program and explore other existing state loan programs that could be expanded to include funding and provide eligibility for hangar development projects. The Georgia Transportation Infrastructure Bank (GTIB), administered by the State Road and Toll Authority and is administratively attached to GDOT, currently provides grants and loans for surface transportation projects. Additionally, the state's OneGeorgia Authority, through its Equity Fund, provides grants and loans with eligibility for airport improvements. Additionally, if sufficient funding is available for a loan program, consideration could be given to including eligibility for other vital aviation infrastructure projects.

In order for hangar loan programs to be effective, it is necessary to provide interest rates and repayment terms sufficient to amortize the debt based on projected revenues less expenses for maintenance and operations. The current and still rising cost of hangar construction as noted in this study would suggest interest rates in the 0-2 percent range for a term of 30-40 years is required to successfully repay a loan and cover expenses. This also requires Georgia's airports to increase monthly hangar rental fees from the current average of \$209/month to \$400-500/month to make loans a viable funding option.

This study identifies the need for at least 1,405 additional hangars to serve the current unmet demand at Georgia's airports statewide. To assist airports in addressing this demand, GDOT should consider developing state specifications for T-hangars that could then be bid through the Georgia Department of Administrative Services and awarded as a statewide contract. Statewide contracts provide buying power to state and local governments through economies of scale. Any specifications and statewide contracts should be structured such that airports can reasonably customize the number hangars, door sizes and types, etc. to best meet the needs of their respective tenants.

Georgia continues to maintain its focus on stimulating and supporting development and economic opportunities in rural areas of the state. Should a loan program be developed, consideration should be given to providing more favorable terms to airports located in designated rural areas in Georgia.

A review of loan programs contained in this survey identifies the following programmatic requirements that should be considered by GDOT in establishing such as program:

1. Ensure airports are compliant with all FAA grant assurances and or state licensing requirements as applicable. This would include ensuring adequate local zoning exists to protect from airspace encroachments and prohibit incompatible land use.
2. Ensure compliance with all other applicable state and federal regulations including environmental review.
3. Airports establish written rules and regulations, minimum standards, a rates and charges policy, hangar waiting list policy and adequate hangar leasing documents.
4. Show hangar development on an approved Airport Layout Plan.
5. Provide adequate justification for the project to include submittal of a current substantiated hangar waiting list and a fair market valuation for rental rates.
6. Pledge project revenues or other suitable security for repayment of the loan
7. Maintain project revenues in a separate deposit account to track income and expenses for the project.
8. Ensure the airport is open to the public without restriction for period equivalent to or greater than the useful life of the project.

9. Maintain the hangar and insure its replacement value for the life of the loan agreement.
10. Ensure the hangar is not encumbered or sold during the loan period.

In reviewing the survey responses and programmatic data, it is clear that states consider loan programs a viable option to advance hangar and other vital infrastructure development. These loan programs offered in other states are a primary driver of economic development, job creation, leverage for other sources of funding, and a vehicle to provide timely response for unexpected or disaster-related projects.

Attachment A-1: Ask NASAO Survey of State Aviation Hangar Funding Programs.



NASAO State Hangar Funding Survey

The Georgia Department of Transportation has initiated an Ask NASAO request to assist in evaluating state grant programs for the construction of airport hangars.

We appreciate your time and effort in completing the survey and request all responses be submitted by September 15, 2023.

1) Name of State Aviation Agency responding to survey:

2) What was the total amount of state aviation program funding for your state in FY23 or your last fiscal year?

\$

3) What was the total dollar amount of state funding provided to general aviation airports in FY23 or your last fiscal year?

\$

4) What was the total dollar amount of state funding provided to commercial service airports in FY23 or your last fiscal year?

\$

5) Does your state provide matching funds for FAA AIP grants for hangar construction on general aviation airports?

Yes No

What is the percentage of the state match relative to total project cost?

%

6) Does your state provide funding assistance for projects to construct hangars on general aviation and/or commercial service airports (no federal funding involved; state-funded project only)?

Yes No

What is the percentage of the state funding relative to total project cost for hangar projects on general aviation airports?

 %

What is the state funding awarded for hangar projects at general aviation airports for each of the past 5 years?

FY 2023

\$

FY 2022

\$

FY 2021

\$

FY 2020

\$

FY 2019

\$

What is the percentage of the state funding relative to total project cost for hangar projects on commercial service airports?

 %

What is the state funding awarded for hangar projects at commercial service airports for each of the past 5 years?

FY 2023

\$

FY 2022

\$

FY 2021

\$

FY 2020

\$

FY 2019

\$

7) Is there any special criteria established by the state that airports must comply with to be eligible for hangar funding? i.e., all airside needs have been met, etc.

Yes No

Please list any special criteria:

Criteria 1

Criteria 2

Criteria 3

Criteria 4

Criteria 5

8) Does your state have a loan program for hangar construction?

Yes No

Loan Program Information

Are there any special eligibility requirements for airports to participate in the loan program?

Yes No

Please provide details:

What is the annual amount of available funding for the hangar loan program?

\$

What is the annual interest rate for the loan program?

%

What is the term of repayment for the hangar loan program?

Years

Are there any caps established for the amount of an individual hangar loan?

Yes No

What is the amount of the cap?

\$

Please provide any additional details relative to the hangar loan program, including any special terms and conditions:

9) Does your state have any other special funding programs specifically for funding hangar construction and/or hangar rehabilitation?

Yes No

Does this program include a set amount of funding each fiscal year for hangar projects?

Yes No

What is the amount from the last fiscal year?

\$

Are there any special eligibility requirements for airports to participate in the special hangar funding program?

Yes No

Please provide additional details:

10) Please upload any programmatic/policy and standards guidance developed by the state relative to hangar funding and loan programs for hangars, as applicable.

No file chosen

Additional File 2

No file chosen

Additional File 3

No file chosen

11) Provide any additional information or comments:

12) Respondent Name

13) Respondent Email

14) Respondent Phone Number

Thank you for your participation!

If you have any questions regarding the survey or need additional assistance, please contact Carol Comer at (770) 639-0331 or ccomer@riverstreetgroupllc.com.

Attachment A- 2 – Enabling Legislation for State Loan Programs

California Airport Loan Program

California Code of Regulations, Title 21, Division 2.5, Chapter 5

§ 4070. Program Description.

Currentness

The regulations in this chapter establish procedures for the administration of the California Airport Loan Program as provided for in Public Utilities Code (PUC) Section 21602. Subject to the availability of funds, the Department may provide funding in the form of loans to eligible sponsors.

Definitions set forth in the State Aeronautics Act (PUC sections 21001 et seq.) and in section 4052 of Chapter 4 also apply within this Chapter. Additionally within this Chapter, “funding” means the granting of a loan by the Department pursuant to these regulations.

Credits

NOTE: Authority cited: Section 21243, Public Utilities Code. Reference: Sections 21002 and 21602, Public Utilities Code.

HISTORY

1. Repealer of article 1 heading, amendment of section heading and section and new NOTE filed 6-3-2005; operative 7-3-2005 (Register 2005, No. 22).

This database is current through 12/29/23 Register 2023, No. 52.

Cal. Admin. Code tit. 21, § 4070, 21 CA ADC § 4070

21 CCR § 4071

§ 4071. Conditions of Eligibility.

Currentness

(a) Sponsor Eligibility. To be eligible for funding, the sponsor must meet the eligibility requirements of Chapter 4, Article 2, sections 4056 through 4058 of these regulations.

(b) Projects Eligibility.

(1) Ineligible Projects. The following projects are not eligible for funding:

(A) Projects to accommodate scheduled air carriers; and

(B) Local matching fund requirements for an A&D grant pursuant to Chapter 4.

(2) Eligible Projects. The following projects are eligible for funding:

(A) On airport projects that enhance an airport's ability to provide general aviation services in a safe, efficient, and economical manner such as, but not limited to, aircraft storage facilities (hangars), general aviation terminal buildings or pilots lounges, utility services (power, water, sewer, etc.), and fueling facilities.

(B) Local matching funds for AIP grants, provided that the sponsor has accepted the federal AIP grant; and

(C) Projects eligible for A&D grants in accordance with Chapter 4.

Credits

NOTE: Authority cited: Section 21243, Public Utilities Code. Reference: Sections 21002, 21602 and 21681, Public Utilities Code.

HISTORY

1. Amendment of section and new NOTE filed 6-3-2005; operative 7-3-2005 (Register 2005, No. 22).

This database is current through 12/29/23 Register 2023, No. 52.

Cal. Admin. Code tit. 21, § 4071, 21 CA ADC § 4071

21 CCR § 4072

§ 4072. Project Feasibility Requirements.

Currentness

In addition to the eligibility criteria within section 4071, the sponsor must demonstrate that the proposed project meets the following feasibility requirements:

(a) Engineering Feasibility. For loans for construction projects only, a proposed project shall be feasible from an engineering assessment, which means that it can be designed, constructed, and operated in accordance with generally-accepted engineering principles and procedures, for the purpose for which the project is created. The engineering feasibility requirement does not apply to loans made only for the purpose of preparing “Plans, Specifications, and Estimates” for an airport construction project. This section is not required for a loan to match an FAA AIP grant.

(b) Economic Feasibility. For revenue-generating loans only, a proposed project shall be economically justified. Sponsor's completed “Checklist for Economic Feasibility,” on the back of the “Revenue Generating Loan-Application” form [DOA-0020 (Rev. 01/2005)], must show that total projected monetary benefits of the project equal or exceed total costs over the service life of the proposed project, where “total costs” means the sum of capital, maintenance, and administrative costs over the service life of the project.

(c) Financial Feasibility. The Department may refuse any loan if it determines that the sponsor does not have the financial ability to repay the loan in accordance with section 4073.

Credits

NOTE: Authority cited: Section 21243, Public Utilities Code. Reference: Sections 21002 and 21602, Public Utilities Code.

HISTORY

1. Amendment of section and new NOTE filed 6-3-2005; operative 7-3-2005 (Register 2005, No. 22).

This database is current through 12/29/23 Register 2023, No. 52.

Cal. Admin. Code tit. 21, § 4072, 21 CA ADC § 4072

21 CCR § 4072.1

§ 4072.1. Application Process.

Currentness

To apply for a loan, the sponsor shall submit a completed and signed application (appropriate to the type of loan requested -- “Airport Development Loan-Application” [DOA-0013 (Rev. 01/2005)], “Matching Funds Loan-Application” [DOA-0019 (Rev. 01/2005)], or “Revenue Generating Loan-Application” [DOA-0020 (Rev. 01/2005)]) to the Department with the following documentation included:

(a) Sponsor Acceptance and Approval. A resolution or minute order from the governing board of the sponsor documenting its approval of the application for a loan and certifying the sponsor's ability to repay the loan.

(b) Federal Aviation Administration Documentation.

(1) For loans to match an FAA AIP grant only. A copy of the FAA AIP Grant Agreement that has been signed by designated representatives of the sponsor and the FAA. The Department may evaluate a loan application based upon a sponsor's application to the FAA for grant funds, but the Department cannot award the loan until it has a copy of the FAA AIP Grant Agreement described above.

(2) The FAA's final determination regarding the sponsor's submission of Federal form(s), such as FAA Form 7460-1 or FAA Form 7480-1, when applicable.

(c) Environmental Compliance. Verification that sponsor is in compliance with the California Environmental Quality Act (CEQA) for the project, if applicable. During the CEQA public review period, the sponsor, or its representative, shall circulate all environmental documents for the project through the Department and the Office of Planning and Research, State Clearinghouse.

(d) Airport Layout Plan or Drawing with Project Information. An Airport Layout Plan (ALP), as defined in section 4052, with a depiction of the proposed project and its location highlighted. The ALP shall be:

(1) The most recent FAA approved version if the airport is in the NPIAS or

(2) An 11 x 17-inch drawing of the airport approved by the sponsor if the airport is not in the NPIAS.

Either an electronic version or a legible hardcopy of the ALP, or the 11 x 17-inch drawing, is acceptable.

This subdivision does not apply to a loan to prepare: (A) a new ALP; (B) a new Airport Land Use Compatibility Plan (ALUCP); or (C) an update to an existing ALUCP.

(e) Sponsor Eligibility and Airport Protection and Programming Requirements. A completed and signed “California Aid to Airports Program (CAAP)--Certification” form [DOA-0007 (Rev. 01/2005)] to certify eligibility pursuant to Article 2 of Chapter 4 of these regulations. This subdivision does not apply if the sponsor has previously submitted a completed certification form to the Department for the same fiscal year in which the project is planned; or if the project is for an ALP, Master Plan, or ALUCP.

(f) Project Feasibility Requirements. Demonstration that the proposed project is feasible pursuant to section 4072.

(g) Additional Information. Sponsor shall provide additional documentation if the Department determines that further information is required to sufficiently evaluate the proposed project.

Credits

NOTE: Authority cited: Section 21243, Public Utilities Code. Reference: Sections 21002, 21602 and 21688, Public Utilities Code.

HISTORY

1. New section filed 6-3-2005; operative 7-3-2005 (Register 2005, No. 22).

This database is current through 12/29/23 Register 2023, No. 52.

Cal. Admin. Code tit. 21, § 4072.1, 21 CA ADC § 4072.1

21 CCR § 4073

§ 4073. Servicing of the Loan.

Currentness

All funds expended under this program shall be repaid to the Department, together with any interest due. The State Controller has the right to impound, or withhold, all other State funds due the borrowing agency to satisfy this requirement.

(a) Repayment.

(1) A loan made under this chapter shall be repayable over a period established by the Department for each loan, which shall not exceed a 17-year period. The sponsor shall make payments to the Department on an annual basis, as established in the loan agreement between the sponsor and the Department, commencing one year from the date that the State Controller issues the warrant for the loan proceeds. Interest shall be computed daily on the basis of the outstanding principal.

(2) Where a loan has been made for the construction of a revenue-generating project, the sponsor shall establish a separate account within the airport's special aviation fund for the purpose of receiving revenue which would be held in trust, in an amount equal to one year's repayment of the loan. Revenue received after the first year's payment would be available to the airport for the purpose of achieving financial self-sufficiency.

(3) Nothing in these regulations shall be construed as prohibiting the sponsor from making early repayment, either in full or in part. Interest due as of the date of early payment shall be included in the early payment.

(b) Interest Rate. Interest charged for loans made under this Chapter will be at the interest rate paid by the State on its most recent issue of general obligation bonds sold prior to the date that the loan is approved.

Credits

NOTE: Authority cited: Section 21243, Public Utilities Code. Reference: Sections 21002 and 21602, Public Utilities Code.

HISTORY

1. Amendment of section and new NOTE and new Figures 1-3 and Tables 1-2 filed 6-3-2005; operative 7-3-2005 (Register 2005, No. 22).

This database is current through 12/29/23 Register 2023, No. 52.

Cal. Admin. Code tit. 21, § 4073, 21 CA ADC § 4073

Link to Legislation - [Browse - California Code of Regulations \(westlaw.com\)](#)

Colorado State Infrastructure Bank

43-1-113.5. Creation and administration of transportation infrastructure revolving fund. (1) There is hereby created in the state treasury the transportation infrastructure revolving fund, referred to in this section as the "revolving fund", which shall be maintained and administered by the executive director. The revolving fund shall consist of federal, state, or private grants and all moneys that may be transferred or appropriated thereto by the general assembly or that may otherwise be made available to the fund pursuant to law. All interest or other return on the investment of moneys in the revolving fund and all payments of principal and interest credited to the revolving fund as repayment of loans and other financial assistance provided from the revolving fund pursuant to this section shall be credited to the revolving fund. The state treasurer shall be authorized to invest moneys in the revolving fund in such manner as allowed by law so long as such moneys are not needed for the purpose of the revolving fund. Moneys in the revolving fund are continuously appropriated to the department for the purposes set forth in this section. Any moneys credited to the revolving fund shall remain in the revolving fund and shall not revert to the general fund at the end of any given fiscal year.

(1.5) Notwithstanding any provision of subsection (1) of this section to the contrary, on April 20, 2009, the state treasurer shall deduct three million dollars from the revolving fund and transfer such sum to the general fund.

(2) The revolving fund shall include a highway account, a transit account, an aviation account, and a rail account. The general assembly shall, by appropriation, determine how state general fund moneys in the revolving fund shall be allocated to the highway account.

(3) The commission shall adopt rules in accordance with the "State Administrative Procedure Act" regarding:

- (a) The eligibility requirements for financial assistance from the revolving fund;
- (b) The disbursement of revolving fund moneys;
- (c) The interest rates to be charged on loans made from the revolving fund; and
- (d) The repayment of loans made from the revolving fund.

(4) Subject to the provisions of section 18 of article X of the state constitution, moneys in the revolving fund may be used for the following purposes:

(a) To provide assistance to public and private entities for the acquisition, improvement, or construction of highways, multimodal transportation, and intermodal transportation facilities in the state. Such assistance includes, but is not limited to, the making of loans and other forms of financial assistance for qualified projects.

(b) To pay the costs incurred by the state treasurer and the department in the performance of duties pursuant to this section; and

(c) Any other purpose consistent with the provisions of this section.

Link to enabling legislation - [crs2021-title-43.pdf \(colorado.gov\)](#)

Florida State Infrastructure Bank

339.55 State-funded infrastructure bank.—

(1) There is created within the Department of Transportation a state-funded infrastructure bank for the purpose of providing loans and credit enhancements to government units and private entities for use in constructing and improving transportation facilities or ancillary facilities that produce or distribute natural gas or fuel.

(2) The bank may lend capital costs or provide credit enhancements for:

(a) A transportation facility project that is on the State Highway System or that provides for increased mobility on the state's transportation system or provides intermodal connectivity with airports, seaports, rail facilities, and other transportation terminals, pursuant to s. 341.053, for the movement of people and goods.

(b) Projects of the Transportation Regional Incentive Program which are identified pursuant to s. 339.2819(4).

(c)1. Emergency loans for damages incurred to public-use commercial deepwater seaports, public-use airports, and other public-use transit and intermodal facilities that are within an area that is part of an official state declaration of emergency pursuant to chapter 252 and all other applicable laws. Such loans:

a. May not exceed 24 months in duration except in extreme circumstances, for which the Secretary of Transportation may grant up to 36 months upon making written findings specifying the conditions requiring a 36-month term.

b. Require application from the recipient to the department that includes documentation of damage claims filed with the Federal Emergency Management Agency or an applicable insurance carrier and documentation of the recipient's overall financial condition.

c. Are subject to approval by the Secretary of Transportation and the Legislative Budget Commission.

2. Loans provided under this paragraph must be repaid upon receipt by the recipient of eligible program funding for damages in accordance with the claims filed with the Federal Emergency Management Agency or an applicable insurance carrier, but no later than the duration of the loan.

(d) Beginning July 1, 2017, applications for the development and construction of natural gas fuel production or distribution facilities used primarily to support the transportation activities at seaports or intermodal facilities. Loans under this paragraph may be used to refinance outstanding debt.

(3) Loans from the bank may be subordinated to senior project debt that has an investment grade rating of "BBB" or higher. Notwithstanding any other provision of law, the total outstanding state-funded infrastructure bank loan repayments over the average term of the loan repayment period, as needed to meet the requirements of the documents authorizing the bonds issued or proposed to be issued under s. 215.617 to be paid from the State Transportation Trust Fund, may not exceed 0.75 percent of the revenues deposited into the State Transportation Trust Fund.

(4) Loans from the bank may bear interest at or below market interest rates, as determined by the department. Repayment of any loan shall commence not later than 5 years after the project has been completed or, in the case of a highway project, the facility has opened to traffic, whichever is later, and shall be repaid within 30 years, except for loans provided under paragraph (2)(c), which shall be repaid within 36 months.

(5) To be eligible for consideration, projects must be consistent, to the maximum extent feasible, with local metropolitan planning organization plans and local government comprehensive plans and must provide a dedicated repayment source to ensure the loan is repaid to the bank.

(6) Funding awarded for projects under paragraph (2)(b) must be matched by a minimum of 25 percent from funds other than the state-funded infrastructure bank loan.

(7) The department may consider, but is not limited to, the following criteria for evaluation of projects for assistance from the bank:

- (a) The credit worthiness of the project.
- (b) A demonstration that the project will encourage, enhance, or create economic benefits.
- (c) The likelihood that assistance would enable the project to proceed at an earlier date than would otherwise be possible.
- (d) The extent to which assistance would foster innovative public-private partnerships and attract private debt or equity investment.
- (e) The extent to which the project would use new technologies, including intelligent transportation systems, that would enhance the efficient operation of the project.
- (f) The extent to which the project would maintain or protect the environment.
- (g) A demonstration that the project includes transportation benefits for improving intermodalism, cargo and freight movement, and safety.
- (h) The amount of the proposed assistance as a percentage of the overall project costs with emphasis on local and private participation.
- (i) The extent to which the project will provide for connectivity between the State Highway System and airports, seaports, rail facilities, and other transportation terminals and intermodal options pursuant to s. 341.053 for the increased accessibility and movement of people and goods.
- (j) The extent to which damage from a disaster that results in a declaration of emergency has impacted a public transportation facility's ability to maintain its previous level of service and remain accessible to the public or has had a major impact on the cash flow or revenue-generation ability of the public-use facility.

(8) Loan assistance provided by the bank shall be included in the department's work program developed in accordance with s. 339.135.

(9) Funds paid into the State Transportation Trust Fund pursuant to s. 201.15(4)(a) for the purposes of the State Infrastructure Bank are hereby annually appropriated for expenditure to support that program.

(10) Financial information of a private entity applicant which the department requires as part of the application process for loans or credit enhancements from the state-funded infrastructure bank is exempt from s. 119.07(1) and s. 24(a), Art. I of the State Constitution. This exemption does not apply to records of an applicant who is in default of a loan issued under this section. As used in this subsection, the term "financial information" means any business plan, pro forma statement, account balance, operating income or revenue, asset value, or debt of the applicant.

History.—s. 16, ch. 2000-257; s. 84, ch. 2002-20; s. 36, ch. 2005-2; s. 11, ch. 2005-281; s. 23, ch. 2005-290; s. 44, ch. 2007-196; s. 7, ch. 2008-114; s. 34, ch. 2013-18; s. 30, ch. 2015-229; s. 1, ch. 2016-38; s. 46, ch. 2016-239; s. 1, ch. 2021-26; s. 4, ch. 2021-39.

¹**Note.**—Section 22, ch. 2000-257, provides that "[n]otwithstanding any other law to the contrary the requirements of sections 206.46(3) and 206.606(2), Florida Statutes, shall not apply to any funding, programs, or other provisions contained in this act."

Link to Legislation - [Statutes & Constitution :View Statutes : Online Sunshine \(state.fl.us\)](https://www.flcourts.gov/legislation)

Michigan Airport Development Loan Program

Act 107 of 1969

AN ACT to authorize the department of state highways and transportation, through the aeronautics commission, to make loans to counties, cities, townships, and incorporated villages, or any combination thereof, and to establish a revolving fund for the purpose of airport development; and to authorize the commission to prescribe rules for granting loans and repayment of loans.

History: 1969, Act 107, Imd. Eff. July 24, 1969;-- Am. 1975, Act 192, Imd. Eff. Aug. 8, 1975

AIRPORT DEVELOPMENT (EXCERPT) Act 107 of 1969

259.251 Continuing airport loan program; creation; administration; purpose.

Sec. 1.

A continuing airport loan program is created to be administered by the department of state highways and transportation through the aeronautics commission for the purpose of making loans to counties, cities, townships, and incorporated villages, or any combination thereof to assist in the construction and improvement of publicly owned airports and landing fields.

History: 1969, Act 107, Imd. Eff. July 24, 1969 ;-- Am. 1975, Act 192, Imd. Eff. Aug. 8, 1975

AIRPORT DEVELOPMENT (EXCERPT)Act 107 of 1969

259.252 Revolving loan account; appropriation, administration.

Sec. 2.

The sum of \$250,000.00 is appropriated from the state aeronautics fund to be administered by the aeronautics commission for the establishment of a revolving loan account to implement the provisions of this act.

History: 1969, Act 107, Imd. Eff. July 24, 1969

AIRPORT DEVELOPMENT (EXCERPT) Act 107 of 1969

259.253 Loans; rules; limitation; repayment period; interest rate; collection and disposition of repayments and interest.

Sec. 3.

The commission shall promulgate rules pursuant to Act No. 306 of the Public Acts of 1969, as amended, being sections 24.201 to 24.315 of the Michigan Compiled Laws, for making loans pursuant to section 1 not to exceed 90% of the local share of the project cost, or \$100,000.00, whichever is the

lesser. The loan shall be repaid within 10 years and shall bear an annual interest rate as established by the state treasurer in the year of the loan. The annual interest rate shall not exceed 6%. The repayments shall be collected by the commission and credited to the revolving loan account established in section 2. The interest shall be collected annually by the commission and credited to the state aeronautics fund.

History: 1969, Act 107, Imd. Eff. July 24, 1969 ;-- Am. 1975, Act 192, Imd. Eff. Aug. 8, 1975 ;-- Am. 1978, Act 134, Imd. Eff. May 4, 1978 ;-- Am. 1980, Act 45, Imd. Eff. Mar. 19, 1980

Admin Rule: R 259.801 et seq. of the Michigan Administrative Code.

**AIRPORT DEVELOPMENT (EXCERPT)
Act 107 of 1969**

259.254 Aeronautics commission; report to legislature, time, contents.

Sec. 4.

At the end of each fiscal year, the commission shall submit to the legislature a report showing total funds available for loans, itemization of loans made, and repayment of loans and interest received.

History: 1969, Act 107, Imd. Eff. July 24, 1969

**AIRPORT DEVELOPMENT (EXCERPT)
Act 107 of 1969**

259.255 Supplemental construction of act.

Sec. 5.

This act shall be construed as supplemental to the laws of this state relative to improvement of airports.

History: 1969, Act 107, Imd. Eff. July 24, 1969

Link to Legislation - [Michigan Legislature - Act 107 of 1969](#)

Minnesota Revolving Loan Account for Hangars

60.305 EXPENDITURES FOR AIRPORTS AND NAVIGATION.

§

Subdivision 1. **Limitations.**

The money appropriated to the commissioner of transportation as contemplated by this section shall be used in accordance with this chapter, in amounts not exceeding the sums specified for individual purposes in the acts making such appropriations. Unless otherwise provided in any such act, the governor may on the governor's own initiative or upon application by the commissioner of transportation order a change in the provisional limitations on the amounts to be expended for the individual purposes specified.

Subd. 2. **Commissioner's order; federal essential air service program.**

(a) Before any expenditure of any of the money appropriated pursuant to this section to assist political subdivisions, municipalities, and public corporations in acquiring, constructing, improving, maintaining, and operating airports and other air navigation facilities may be authorized, the commissioner of transportation shall have made, with the approval of the governor, an order designating the municipalities and airports which are a part of the key airport system, the intermediate airport system, the landing strip system, and the state system of radio and navigational aids, in accordance with the definitions and limitations stated in subdivision 3.

(b) The commissioner may use state airports fund money to provide the state's matching portion required to participate in the federal essential air service program under United States Code, title 49, sections 41731 to 41748.

Subd. 3. **Types of airport systems.**

(a) Key system airports are those used or intended to be used by aircraft of all sizes up to and including large multiengine and jet aircraft, not exceeding 40.

(b) Intermediate system airports shall be those used or intended for use by single engine or light to medium multiengine aircraft and shall include vertical takeoff and landing areas and short takeoff and landing areas not exceeding 90.

(c) The landing strip system shall consist of those small airports which may be unattended, sod or hard surfaced and which are used or intended for use by single or multiengine light aircraft, and not exceeding 65.

(d) The commissioner may amend such order from time to time to expand or modify the airport system to serve best the interest of the state, subject to the approval of the governor.

Subd. 4. **Costs allocated; local contribution; hangar construction account.**

(a) Annually by June 1, the commissioner of transportation shall establish local contribution rates which will apply to a political subdivision, municipality, or public corporation when applying for state or federal funding assistance to construct, improve, maintain, or operate an airport, or to acquire land for airport facilities or clear zones. If the commissioner does not establish local contribution rates by June 1, the previous rates apply.

(b) The commissioner may pay all costs beyond the local contribution. Local contribution rates shall not be less than five percent of the total cost of the activity or acquisition, except that the commissioner may require less than five percent for research projects, radio or navigational aids, activities, or acquisitions for which federal funds are available to cover more than 90 percent of the total cost, or as otherwise necessary to respond to an emergency.

(c) The commissioner's establishment of local contribution rates is not subject to the rulemaking requirements of chapter 14.

(d) To receive aid under this section, the municipality must enter into an agreement with the commissioner giving assurance that the airport will be operated and maintained in a safe, serviceable manner for aeronautical purposes only for the use and benefit of the public:

(1) for 20 years after the date the municipality receives any state funds for construction or improvement costs; and

(2) for 99 years after the date the municipality receives any state funds for land acquisition costs. If any land acquired with state funds ceases to be used for aviation purposes, the municipality shall repay the state airports fund the same percentage of the appraised value of the property as that percentage of the costs of acquisition and participation provided by the state to acquire the land.

The agreement may contain other conditions as the commissioner deems reasonable.

(e) The commissioner shall establish a hangar construction revolving account, which shall be used for the purpose of financing the construction of hangar buildings to be constructed by municipalities owning airports. All municipalities owning airports are authorized to enter into contracts for the construction of hangars, and contracts with the commissioner for the financing of hangar construction for an amount and period of time as may be determined by the commissioner and municipality. All receipts from the financing contracts shall be deposited in the hangar construction revolving account and are reappropriated for the purpose of financing construction of hangar buildings. The commissioner shall transfer up to \$4,400,000 from the state airports fund to the hangar construction revolving account.

(f) The commissioner may contribute to costs incurred by any municipality for airport maintenance and operations, safety equipment, and airport snow removal.

Subd. 5. Commissioner's powers.

The commissioner of transportation shall cause to be prepared or supervise the preparation of plans and specifications for the construction, improvement, and maintenance of all airports and air navigation facilities upon which expenditures are made pursuant to this section; approve such plans and specifications; supervise and inspect all work; approve all lawful changes in plans and specifications; approve estimates for payments; and approve the construction when completed according to such plans and specifications.

Subd. 6. Zoning required.

The commissioner must not expend money for planning or land acquisition, for the construction, improvement, or maintenance of airports, or for air navigation facilities for an airport, unless the municipality, county, or joint airport zoning board involved has or is establishing a zoning authority for that airport, and the authority has made a good-faith showing that it is in the process of and will complete with due diligence, an airport zoning ordinance in accordance with sections [360.061](#) to [360.074](#). The commissioner may provide funds to support airport safety projects that maintain existing infrastructure, regardless of a zoning authority's efforts to complete a zoning

regulation. The commissioner must make maximum use of zoning and easements to eliminate runway and other potential airport hazards rather than land acquisition in fee.

Subd. 7. Reimbursements to state airports fund.

Reimbursements from municipalities for striping runways shall be deposited in the state airports fund.

History:

1945 c 469 s 5; 1947 c 548 s 1; 1963 c 791 s 5; 1965 c 606 s 1; 1967 c 791 s 1-3; 1969 c 786 s 1,2; 1971 c 706 s 1; 1973 c 760 s 1-3; 1974 c 373 s 1; 1976 c 166 s 7; 1978 c 660 s 3,4; 1981 c 209 s 14; 1981 c 357 s 102,103; 1986 c 444; 1989 c 272 s 1; 1994 c 640 s 2; 1995 c 186 s 72-74; 1999 c 230 s 30; 2002 c 364 s 27; 2004 c 136 s 1; 2005 c 41 s 1; 2015 c 75 art 2 s 45; 1Sp2019 c 3 art 3 s 103; 2022 c 55 art 1 s 159,160

Link to Legislation - [Sec. 360.305 MN Statutes](#)

Missouri State Transportation Revolving Loan Fund

Title XIV ROADS AND WATERWAYS

Chapter 226 - Effective - 28 Aug 1996

226.191. State transportation assistance revolving fund created — administration — powers of commission — fund not to lapse. — 1. For the purposes of assisting in the planning, acquisition, development and construction of transportation facilities other than highways in this state, there is hereby created in the state treasury a fund known as the "State Transportation Assistance Revolving Fund". The fund shall receive all moneys which may be appropriated or otherwise credited to it by the general assembly and shall also receive any gifts, contributions, grants or bequests received from federal, private or other sources.

2. The state transportation assistance revolving fund shall be administered by the state highways and transportation commission which shall have the power to loan moneys in the fund to any political subdivision of the state or to any public or private not-for-profit organization or entity for:

(1) The planning, acquisition, development and construction of facilities for transportation by air, water, rail or mass transit;

(2) The purchase of vehicles for the transportation of elderly or handicapped persons; or

(3) The purchase of rolling stock for transit purposes.

No funds provided by this section shall be used for the payment of the operating expenses of such transportation facilities or for the construction or maintenance of state highways.

3. The state highways and transportation commission, by rule, shall establish* the procedures, conditions and repayment terms applicable to any loans or grants made under this section. An application fee or other charges may be assessed by the commission. Loans made under this section may be interest bearing or interest free.

4. Loaned funds and the interest, if any, accrued thereon which are repaid to the state highways and transportation commission shall be deposited in the state treasury to the credit of the state transportation assistance revolving fund and may be used by the commission for other eligible projects under this section.

5. Any balance in the state transportation assistance revolving fund remaining at the end of an appropriation period shall not be transferred to the general revenue fund and the provisions of section 33.080 shall not apply to the fund. All interest earned upon the balance in the state transportation assistance revolving fund shall be deposited to the credit of the same fund.

(L. 1996 S.B. 780 § 14)

*Word "established" appears in original rolls

Missouri Revisor of Statutes - Revised Statutes of Missouri, RSMo Section 226.191

Montana Aeronautical Grant and Loan Fund

TITLE 67. AERONAUTICS

CHAPTER 1. GENERAL PROVISIONS

Part 3. Finance

Airport Grants and Loans

67-1-304. Airport grants and loans. Any airport grant or loan that the department may be authorized to issue may be issued only after review and approval of the grant or loan request by the board.

History: En. Sec. 4, Ch. 685, L. 1983.

Special Aeronautical Loan Account

67-1-306. Special aeronautical loan account. There is a special aeronautical loan account in the state special revenue fund. Principal and interest payments deposited in the account may be used only for providing loans specified in **67-1-307**.

History: En. Sec. 13, Ch. 642, L. 1993.

Aeronautical Loans

67-1-307. Aeronautical loans. Money deposited in the account created in **67-1-306** may, with the approval of the board, be used only to provide loans to local governments and state agencies for aeronautical purposes, including airport improvement. The board shall establish procedures, including the interest rate charged, for providing loans. Proceeds of all repayments of loans, including interest, made under this section must be deposited in the account created in **67-1-306**.

History: En. Sec. 14, Ch. 642, L. 1993.

Link to Legislation - [Part 3. Finance - Table of Contents, Title 67, Chapter 1, MCA \(mt.gov\)](#)

New Hampshire - Rural Airport Capital Revolving Loan Fund

423:11 Rural Airport Capital Revolving Loan Fund. –

I. There is hereby established in the office of the state treasurer a fund to be known as the rural airport capital revolving loan fund which shall be kept separate and distinct from all other funds. Moneys in the fund shall be nonlapsing and shall be continually appropriated to the department of transportation, and shall be used to provide loans to enhance and rehabilitate all non-commercial service airports open to the public in municipalities with populations of 14,000 or less. Loans to airports from this fund shall be subject to the approval of the governor and council.

II. The operator of the rural airport provided a loan under this section shall furnish assurance to the director of the division of aeronautics, rail, and transit by a signed agreement that the rural airport intends to operate as an airport and will remain open to the public for the life of the capital improvement.

III. The operator of the rural airport shall repay any loan made pursuant to this section upon such terms and conditions as are recommended by the department of transportation, director of the division of aeronautics, rail, and transit. The term of the loan shall be no less than 5 years and no longer than 20 years, and shall to the extent possible consistent with this section be determined so as to match the useful life of the improvements funded by the loan. The terms and conditions shall be contained in the binding agreement between the state and the operator of the rural airport and shall be sufficient to fully reimburse the state for the principal and interest payments on that portion of the bonds authorized to fund the loan. All money received through reimbursement shall be deposited by the state treasurer in the rural airport capital revolving loan fund.

IV. A lien on the property of the rural airport shall be created in favor of the state in an amount which equals the sum of principal and interest to be repaid by the owner or sponsor of the rural airport. The lien shall be recorded in the registry of deeds of the county or counties in which the property is situated and shall not supersede any pre-existing lien created by a mortgage affecting such property. The lien shall expire only when the loan has been fully repaid.

V. To provide funds for the revolving loan fund established pursuant to this section, the state treasurer, as may be requested from time to time by the division of aeronautics, rail, and transit, department of transportation, is authorized to borrow from time to time upon the credit of the state such amounts so that the total state obligation shall at no time exceed \$750,000 and for said purposes may issue bonds and notes at such time in the name and on behalf of the state of New Hampshire in accordance with the provisions of RSA 6-A. The department shall request and the treasurer shall issue bonds only for such amounts from time to time as are required for the purposes of this section and provided that the principal and interest payments can be satisfied from sums in the fund established in paragraph I.

VI. The payments of principal and interest on the bonds issued under paragraph V shall be made when due from the special fund established by paragraph I.

Source. 1997, 306:2, eff. Aug. 19, 1997. 2004, 257:30, eff. July 1, 2004

Link to enabling legislation - [Revised Statutes Online Search \(state.nh.us\)](https://www.revisor.nh.gov/Revisor/search)

North Dakota Infrastructure Revolving Loan Fund

6-09-49. Infrastructure revolving loan fund - Continuing appropriation.

1. The infrastructure revolving loan fund is a special fund in the state treasury from which the Bank of North Dakota shall provide loans to political subdivisions, the Garrison Diversion Conservancy District, and the Lake Agassiz water authority for essential infrastructure projects. The Bank shall administer the infrastructure revolving loan fund. The maximum term of a loan made under this section is the lesser of thirty years or the useful life of the project. A loan made from the fund under this section must have an interest rate that does not exceed two percent per year.

2. For purposes of this section, "essential infrastructure projects" means capital construction projects to construct new infrastructure or replace existing infrastructure, which provide the fixed installations necessary for the function of a political subdivision. Capital construction projects exclude routine maintenance and repair projects, but include the following:

- a. The Red River valley water supply project;
- b. Water treatment plants;
- c. Wastewater treatment plants;
- d. Sewerlines and waterlines, including lift stations and pumping systems;
- e. Storm water infrastructure, including curb and gutter construction;
- f. Water storage systems, including dams, water tanks, and water towers;
- g. Road and bridge infrastructure, including paved and unpaved roads and bridges;
- h. Airport infrastructure;
- i. Electricity transmission infrastructure;
- j. Natural gas transmission infrastructure;
- k. Communications infrastructure;
- l. Emergency services facilities, excluding hospitals;
- m. Critical political subdivision buildings and infrastructure; and
- n. Infrastructure required to service recreation and community facilities, not including the construction of a building or recreational amenity.

3. In processing political subdivision loan applications under this section, the Bank shall calculate the maximum outstanding loan amount per qualified applicant. A qualified applicant under this section may have a maximum combined total of twenty million dollars in outstanding loans under this section and section 6-09-49.1. The Bank shall consider the applicant's ability to repay the loan when processing the application and shall issue loans only to applicants that provide reasonable assurance of sufficient future income to repay the loan.

4. The Bank shall deposit in the infrastructure revolving loan fund all payments of interest and principal paid under loans made from the infrastructure revolving loan fund. The Bank may use a portion of the interest paid on the outstanding loans as a servicing fee to pay for administrative costs which may not exceed one-half of one percent of the amount of the interest payment. All moneys transferred to the fund, interest upon moneys in the fund, and payments to the fund of principal and interest are appropriated to the Bank on a continuing basis for administrative costs and for loan disbursement according to this section.

5. The Bank may adopt policies and establish guidelines to administer this loan program in accordance with the provisions of this section and to supplement and leverage the funds in the infrastructure revolving loan fund. Additionally, the Bank may adopt policies allowing participation by local financial institutions.

6. If a political subdivision applies for a loan under this section for a county road or bridge project, the department of transportation shall review and approve the project before the Bank may issue a loan. If a political subdivision applies for a loan under this section for a water-related project, the state

water commission shall review and approve the project before the Bank may issue a loan. The department of transportation and state water commission may develop policies for reviewing and approving projects under this section.

6-09-49.1. Legacy infrastructure loan fund - Continuing appropriation.

1. The legacy infrastructure loan fund is a special fund in the state treasury from which the Bank of North Dakota shall provide loans to political subdivisions, the Garrison Diversion Conservancy District, and the Lake Agassiz water authority for eligible infrastructure projects as authorized in this section.
2. The Bank of North Dakota may adopt policies and establish guidelines to administer the legacy infrastructure loan fund in accordance with this section.
3. A loan made from the legacy infrastructure loan fund must have an interest rate that does not exceed two percent per year. The maximum term of a loan under this section is the lesser of thirty years or the useful life of the project.
4. The Bank of North Dakota shall transfer all payments of principal and interest paid on loans made from the legacy infrastructure loan fund to the legacy fund. The Bank may use a portion of the interest paid on the outstanding loans as a servicing fee to pay for administrative costs, which may not exceed one-half of one percent of the amount of the outstanding loans.
5. An applicant shall issue an evidence of indebtedness as authorized by law.
6. When processing political subdivision loan applications under this section, the Bank of North Dakota shall calculate the maximum outstanding loan amount per qualified applicant. The maximum outstanding loan amount for infrastructure projects under subsection 7 is forty million dollars. The Bank shall consider the ability of the applicant to repay the loan while processing the application and shall issue loans only to applicants that provide reasonable assurance of sufficient future income to repay the loan.
7. Eligible infrastructure projects under this subsection are capital projects to construct new infrastructure or to replace infrastructure and which provide the fixed installations necessary for the function of a political subdivision. Capital construction projects exclude routine maintenance and repair projects, but include:
 - a. Water treatment plants;
 - b. Wastewater treatment plants;
 - c. Sewerlines and waterlines, including lift stations and pumping stations;
 - d. Water storage systems, including dams, water tanks, and water towers;
 - e. Storm water infrastructure, including curb and gutter construction;
 - f. Road and bridge infrastructure, including paved and unpaved roads and bridges;
 - g. Airport infrastructure;
 - h. Electricity transmission infrastructure;
 - i. Natural gas transmission infrastructure;
 - j. Communications infrastructure;
 - k. Emergency services facilities, excluding hospitals;
 - l. Essential political subdivision building and infrastructure; and
 - m. The Red River valley water supply project.
8. The department of transportation shall approve county road and bridge projects for purposes of loans under this section and may adopt policies for the review and approval of projects under this section.
9. For purposes of loans under this subsection, the state water commission shall review and approve eligible projects to construct new water-related infrastructure or to replace existing water-related infrastructure which provide the fixed installations necessary for the function of a political subdivision. The state water commission may adopt policies for the review and approval of projects

under this section. Capital construction projects exclude routine maintenance and repair projects, but include:

- a. Flood control;
- b. Conveyance projects;
- c. Rural water supply;
- d. Water supply; and
- e. General water management.

Link to legislation - [North Dakota Century Code t06c09 \(ndlegis.gov\)](http://ndlegis.gov)

Ohio State Infrastructure Bank

Section 5531.09 State infrastructure bank - funds.

(A) As used in this section and section 5531.10 of the Revised Code:

(1) "Qualified project" means any public or private transportation project as determined by the director of transportation, including, without limitation, planning, environmental impact studies, engineering, construction, reconstruction, resurfacing, restoring, rehabilitation, or replacement of public or private transportation facilities within the state, studying the feasibility thereof, and the acquisition of real or personal property or interests therein; any highway, public transit, aviation, rail, or other transportation project eligible for financing or aid under any federal or state program; and any project involving the maintaining, repairing, improving, or construction of any public or private highway, road, street, parkway, public transit, aviation, or rail project, and any related rights-of-way, bridges, tunnels, railroad-highway crossings, drainage structures, signs, guardrails, or protective structures.

(2) "Small municipal corporation" means a municipal corporation that is determined by the department of transportation to be an eligible small city in accordance with the department's small city program.

(B) The state infrastructure bank shall consist of the highway and transit infrastructure bank fund, the aviation infrastructure bank fund, the rail infrastructure bank fund, and the infrastructure bank obligations fund, which are hereby created as funds of the state treasury, to be administered by the director of transportation and used for the purposes described in division (C) of this section. The highway and transit infrastructure bank fund, the aviation infrastructure bank fund, and the rail infrastructure bank fund shall consist of federal grants and awards or other assistance received by the state and eligible for deposit therein under applicable federal law, payments received by the department in connection with providing financial assistance for qualifying projects under division of this section, and such other amounts as may be provided by law. The infrastructure bank obligations fund shall consist of such amounts of the proceeds of obligations issued under section 5531.10 of the Revised Code as the director of transportation determines with the advice of the director of budget and management; and such other amounts as may be provided by law. The director of budget and management, upon the request of the director of transportation, may transfer amounts between the funds created in this division, except the infrastructure bank obligations fund. The investment earnings of each fund created by this division shall be credited to such fund.

(C) The director of transportation shall use the state infrastructure bank to encourage public and private investment in transportation facilities that contribute to the multi-modal and intermodal transportation capabilities of the state, develop a variety of financing techniques designed to expand the availability of funding resources and to reduce direct state costs, maximize private and local participation in financing projects, and improve the efficiency of the state transportation system by using and developing the particular advantages of each transportation mode to the fullest extent. In furtherance of these purposes, the director shall use the state infrastructure bank to provide financial assistance to public or private entities for qualified projects. Such assistance shall be in the form of loans, loan guarantees, letters of credit, leases, lease-purchase agreements, interest rate subsidies, debt service reserves, and such other forms as the director determines to be appropriate. All fees, charges, rates of interest, payment schedules, security for, and other terms and conditions relating to such assistance shall be determined by the director. Any loan made to a small municipal

corporation from the state infrastructure bank shall be a zero interest loan.

(D) The director of transportation shall adopt rules establishing guidelines necessary for the implementation and exercise of the authority granted by this section, including rules for receiving, reviewing, evaluating, and selecting projects for which financial assistance may be approved.

(E) The general assembly finds that state infrastructure projects, as defined in division (A)(8) of section 5531.10 of the Revised Code, and the state infrastructure bank, will materially contribute to the economic revitalization of areas of the state and result in improving the economic welfare of all the people of the state. Accordingly, it is declared to be the public purpose of the state, through operations under sections 5531.09 and 5531.10 of the Revised Code, and other applicable laws adopted pursuant to Section 13 of Article VIII, Ohio Constitution, and other authority vested in the general assembly, to assist in and facilitate the purposes set forth in division (B) of section 5531.10 of the Revised Code, and to assist and cooperate with any governmental agency in achieving such purposes.

Link to legislation - [Section 5531.09 - Ohio Revised Code | Ohio Laws](#)

Oklahoma Airport Grant and Loan Program

§3-85. Powers and duties of Commission.

A. The Oklahoma Aeronautics Commission and its Director acting under its authority is empowered and directed to encourage, foster, and assist in the development of aeronautics in this state and to encourage the establishment of airports and air navigation facilities. It shall cooperate with and assist the federal government, the municipalities of this state, and other persons in the development of aeronautics, and shall seek to coordinate the aeronautical activities of these bodies and persons. Municipalities are authorized to cooperate with the Commission in the development of aeronautics and aeronautical facilities in this state.

B. The Commission may organize and administer a voluntary program of air-age education in cooperation with the schools, colleges, and for the general public, and may prepare and conduct voluntary flight clinics for airmen and issue such bulletins and publications as may be required.

C. The Commission shall assist in all aeronautical matters related to emergency management actions in conformance with federal directions and with the Emergency Operations Plan of the state.

D. The Commission may establish air markers throughout the state.

E. The Commission may purchase and install roadside signs directing highway traffic to airports, subject to approval of the State Transportation Commission.

F. The Commission shall:

1. Draft and recommend necessary legislation to advance the interests of the state in aeronautics;
2. Represent the state in aeronautical matters before federal agencies and other state agencies; and
3. Participate as party plaintiff or defendant or as intervener on behalf of the state or any municipality or citizen thereof in any proceeding which involves the interest of the state in aeronautics.

G. 1. The Commission may, insofar as is reasonably possible, make available its engineering and other technical services to any municipality or person desiring them in connection with the planning, acquisition, construction, improvement, maintenance, or operation of airports or navigation facilities.

2. The Commission may render financial assistance by grant or loan or both to any municipality or municipalities acting jointly in the planning, acquisition, construction, improvement, maintenance, or operation of an airport owned or controlled, or to be owned or controlled, by such municipality or municipalities, out of Oklahoma Statutes - Title 3. Aircraft and Airports Page 25 appropriations or other monies made available by the Legislature for such purposes. Such financial assistance may be furnished in connection with federal or other financial aid for the same purposes.

3. The Commission shall be designated as the agent of this state or political subdivision of this state for the purpose of applying for, receiving, administering and disbursing federal funds and other public monies for the benefit of general aviation airports, except reliever airports, as may be available under applicable federal law or other laws. If requested by a political subdivision, the Commission may act as its or their agent in contracting for and supervising such planning, acquisition, construction, improvement, maintenance, or operation; and all political subdivisions are authorized to designate the Commission as their agent for the foregoing purposes. The Commission, as principal on behalf of the state, may enter into any contracts with the United States or with any person, which may be required in connection with a grant or loan of federal monies for municipal airport or air navigation facility

purposes. All federal monies accepted under this section shall be accepted and transferred or expended by the Commission upon such terms and conditions as are prescribed by the United States. All monies received by the Commission pursuant to this section shall be deposited in the Oklahoma Aeronautics Commission Fund in the State Treasury and shall be paid out by the Commission in accordance with the terms and conditions of any agreement entered into under the provisions of this section.

H. 1. The Commission is authorized on behalf of and in the name of the state, out of appropriations and other monies made available for such purposes, to plan, zone, establish, construct, enlarge, improve, maintain, equip, operate, regulate, protect, and police airports and air navigation facilities, either within or without the state, including the construction, installation, equipping, maintenance, and operation at such airports of buildings and other facilities for the servicing of aircraft or for the comfort and accommodation of air travelers. However, the regulatory authority shall not extend to any airman employed by, nor to any aeronautics facility or aircraft under the exclusive possession, operation, or control of, a person holding a certificate of public convenience and necessity issued by any agency of the United States to operate as a common carrier by air of persons and/or property in interstate commerce. For such purposes the Commission may, by purchase, gift, devise, or lease, acquire property, real or personal, or any interest therein including easements in aeronautical hazards or land outside the boundaries of an airport or airport site, as are necessary to permit safe and efficient operation of the state airports or to permit the removal, elimination, obstruction-marking or obstruction-lighting of airport hazards, or to prevent the establishment of airport hazards. In like manner the Commission may acquire existing airports and air navigation facilities. However, the Commission shall not acquire or take over any airport or air navigation facility owned or controlled by a municipality of this or any other state without the consent of such municipality. The Commission may, by sale, lease, or otherwise, dispose of any such property, airport, air navigation facility, or portion thereof or interest therein. The disposal, by sale, lease, or otherwise, shall be in accordance with the laws of this state governing the disposition of other property of the state, except that, in the case of disposals to any municipality or state government or the United States for aeronautical purposes incident thereto, the sale, lease, or other disposal may be effected in such manner and upon such terms as the Commission may deem in the best interest of the state.

2. All airports owned by the state shall be within the primary jurisdiction of the Oklahoma Aeronautics Commission for purposes of design, development, and operation; provided, that airports owned and operated by the Oklahoma Space Industry Development Authority shall be exempt from such provisions, and during the time of a national emergency, the Air National Guard shall be exempt from such provisions, and provided further, that any airport owned by the state may be leased by the Commission to a public or private agency, as it may deem fit.

3. Nothing contained in the Oklahoma Aeronautics Commission Act shall be construed to limit any right, power, or authority of the state or a municipality to regulate airport hazards by zoning.

4. The Commission may exercise any powers granted by this section jointly with any municipalities or with the United States.

5. a. In operating an airport or air navigation facility owned or controlled by the state, the Commission may enter into contracts, leases, and other arrangements for a term not exceeding twenty-five (25) years with any persons granting the privilege of using or improving such airport or air navigation facility or any portion or facility thereof or space therein for commercial purposes; conferring the privilege of supplying goods, commodities, things, services, or facilities at such airport or air navigation facility; or making available services to be furnished by the Commission or its agents at such airport or air navigation facility. In each such case the

Commission may establish the terms and conditions and fix the charges, rentals, or fees for the privileges or services, which shall be reasonable and uniform for the same class of privileges or services and shall be established with due regard to the property and improvements used and the expenses of operation to the state; provided, that in no case shall the public be deprived of its rightful, equal, and uniform use of the airport, air navigation facility or portion or facility thereof.

- b. The Commission may by contract, lease, or other arrangement, upon a consideration fixed by it, grant to any qualified person for a term not to exceed twenty-five (25) years the privilege of operating, as agent of the state or otherwise, any airport owned or controlled by the state; provided, that no such person shall be granted any authority to operate the airport other than as a public airport or to enter into any contracts, leases, or other arrangements in connection with the operation of the airport which the Commission might not have undertaken under subparagraph a of this paragraph.
 - c. To enforce the payment of any charges for repairs to, or improvements, storage, or care of, any personal property made or furnished by the Commission or its agents in connection with the operation of an airport or air navigation facility owned or operated by the state, the state shall have liens on such property, which shall be enforceable by the Commission as provided by law.
6. In accepting federal monies under this section, the Commission shall have the same authority to enter into contracts on behalf of the state as is granted to the Commission under paragraph 3 of subsection G of this section with respect to federal monies accepted on behalf of municipalities. All monies received by the Commission pursuant to this section shall be deposited in the Oklahoma Aeronautics Commission Fund in the State Treasury and shall be paid out of the Commission Fund in accordance with the terms and conditions of any agreement entered into under the provisions of this section.
7. The Commission shall grant no exclusive right for the use of any airport or air navigation facility under its jurisdiction. This shall not be construed to prevent the making of contracts, leases, and other arrangements pursuant to paragraph 5 of this subsection.
- I. The Commission may enter into any contracts necessary to the execution of the powers granted it by the Oklahoma Aeronautics Commission Act. All contracts made by the Commission, either as the agent of the state or as the agent of any municipality, shall be made pursuant to the laws of the state governing the making of like contracts. When the planning, acquisition, construction, improvement, maintenance, or operation of any airport or air navigation facility is financed wholly or partially with federal monies, the Commission as agent of the state or of any municipality may let contracts in the manner prescribed by the federal authorities acting under the laws of the United States and any rules or regulations made thereunder.
- J. 1. The Commission, the Director, or any officer or employee of the Commission designated by it shall have the power to hold investigations, inquiries, and hearings concerning matters covered by the provisions of the Oklahoma Aeronautics Commission Act and the rules, regulations, and orders of the Commission. Hearings shall be open to the public and shall be held upon such call or notice as the Commission shall deem advisable. Each member of the Commission, the Director, and every officer or employee of the Commission designated by it to hold any inquiry, investigation, or hearing shall have the power to administer oaths and affirmations, certify to all official acts, issue subpoenas, and order the attendance and testimony of witnesses and the production of papers, books, and documents. In case of the failure of any person to comply with any subpoena or order issued under the authority of

this subsection, or on the refusal of any witness to testify to any matters regarding which he may be lawfully interrogated, it shall be the duty of the district court of any county or of the judge thereof, on application of the Commission or its authorized representative, to compel obedience by proceedings for contempt, as in the case of disobedience of the requirements of a subpoena issued from such court or a refusal to testify therein.

2. In order to facilitate the making of investigations by the Commission in the interest of public safety and promotion of aeronautics the public interest requires, and it is therefore provided, that the reports of investigations or hearings, or any part thereof, shall not be admitted in evidence or used for any purpose in any suit, action, or proceeding growing out of any matter referred to in the investigation, hearing, or report thereof, except in case of any suit, action, or proceeding, civil or criminal, instituted by or in behalf of the Commission or in the name of the state under the provisions of the Oklahoma Aeronautics Commission Act or other laws of the state relating to aeronautics; nor shall any member of the Commission, or the Director, or any officer or employee of the Commission be required to testify to any facts ascertained in, or information gained by reason of, such person's official capacity, or be required to testify as an expert witness in any suit, action, or proceeding involving any aircraft. Subject to the foregoing provisions, the Commission may in its discretion make available to appropriate federal, state and municipal agencies information and material developed in the course of its investigations and hearings.

K. 1. The Commission is authorized to confer with or to hold joint hearings with any agency of the United States in connection with any matter arising under the Oklahoma Aeronautics Commission Act or relating to the sound development of aeronautics.

2. The Commission is authorized to avail itself of the cooperation, services, records, and facilities of the agencies of the United States as fully as may be practicable in the administration and enforcement of the Oklahoma Aeronautics Commission Act. The Commission shall furnish to the agencies of the United States its cooperation, services, records, and facilities, insofar as may be practicable.

3. The Commission shall report to the appropriate agency of the United States all accidents in aeronautics in this state of which it is informed and shall, insofar as is practicable, preserve, protect, and prevent the removal of the component parts of any aircraft involved in an accident being investigated by it until the federal agency institutes an investigation.

L. The Commission may organize and administer an aerospace education program in cooperation with universities, colleges and schools for the general public. The Commission may also plan and act jointly in a cooperative aviation research or high technology program. As part of these programs, the Commission may issue aviation communication films and publications.

M. The Commission shall administer an airport inspection program for all public-use airports within the State of Oklahoma. The inspection program shall occur on a three-year cycle and shall be administered by the Oklahoma Aeronautics Commission. Airport owners, including individuals and municipalities, shall provide access to airport facilities for conducting the inspections. The Commission shall provide a written report to each public-use airport detailing the findings of such inspections.

Added by Laws 1963, c. 354, § 5, emerg. eff. June 22, 1963. Amended by Laws 1995, c. 181, § 4, eff. July 1, 1995; Laws 2003, c. 329, § 56, emerg. eff. May 29, 2003; Laws 2005, c. 401, § 1, eff. July 1, 2005; Laws 2017, c. 103, § 1, eff. Nov. 1, 2017; Laws 2018, c. 304, § 1, emerg. eff. May 10, 2018. NOTE: Laws 2017, c. 138, § 1 repealed by Laws 2018, c. 304, § 2, emerg. eff. May 10, 2018.

Link to enabling legislation - [OAC Statutes.pdf \(oklahoma.gov\)](#)

Washington Community Aviation Loan Program

RCW 47.68.460

Community aviation revitalization board—Loans—Applications—Guidelines.

(1) The community aviation revitalization board may make direct loans to airport sponsors of public use airports in the state for the purpose of airport improvements that primarily support general aviation activities. The board may provide loans for the purpose of airport improvements only if the state is receiving commensurate public benefit, which must include, as a condition of the loan, a commitment to provide public access to the airport for a period of time equivalent to one and one-half times the term of the loan. For purposes of this subsection, "public use airports" means all public use airports not listed as having more than seventy-five thousand annual commercial air service passenger enplanements as published by the federal aviation administration.

(2) An application for loan funds under this section must be made in the form and manner as the board may prescribe. When evaluating loan applications, the board must prioritize applications that provide conclusive justification that completion of the loan application project will create revenue generating opportunities. The board is not limited to, but must also use, the following expected outcome conditions when evaluating loan applications:

(a) A specific private development or expansion is ready to occur and will occur only if the aviation facility improvement is made;

(b) The loan application project results in the creation of jobs or private sector capital investment as determined by the board;

(c) The loan application project improves opportunities for the successful maintenance, operation, or expansion of an airport or adjacent airport business park;

(d) The loan application project results in the creation or retention of long-term economic opportunities; and

(e) The loan application project results in leveraging additional federal funding for an airport.

(3)(a) If the board chooses to require a local match, the board must develop guidelines for local participation and allowable match and activities.

(b) An application must:

(i) Be supported by the port district, city, or county in which the project is located; or

(ii) Clearly identify the source of funds intended to repay the loan.

[2021 c 175 § 5.]

NOTES:

Findings—Effective date—2021 c 175: See notes following RCW 47.68.430.

RCW 47.68.470

Community aviation revitalization board—Public use general aviation airport loan program.

The public use general aviation airport loan program, when authorized by the community aviation revitalization board, is subject to the following conditions:

(1) The moneys in the public use general aviation airport loan revolving account created in RCW **47.68.490** must be used only to fulfill commitments arising from loans authorized in this chapter. The total outstanding amount that the board must dispense at any time pursuant to this section must not exceed the moneys available from the account.

(2) On contracts made for public use general aviation airport loans, the board must determine the interest rate that loans must bear. The interest rate must not exceed the amount needed to cover the administrative expenses of the board and the loan program. The board may provide reasonable terms and conditions for the repayment of loans, with the repayment of a loan to begin no later than three years after the award date of the loan. The loans must not exceed twenty years in duration.

(3) The repayment of any loan made from the public use general aviation airport loan revolving account under the contracts for aviation loans must be paid into the public use general aviation airport loan revolving account.

(4) Loans issued to airport sponsors of nongovernmental airports must only be made from repaid loan funds deposited into the public use general aviation airport loan revolving account.

[**2021 c 175 § 6.**]

NOTES:

Findings—Effective date—2021 c 175: See notes following RCW **47.68.430**.

RCW 47.68.490

Public use general aviation airport loan revolving account.

The public use general aviation airport loan revolving account is created in the custody of the state treasurer. All receipts from moneys collected under sections 6023 and 4005, chapter 413, Laws of 2019 and section 1, chapter 175, Laws of 2021 and RCW **47.68.430** through **47.68.480** must be deposited into the account. Expenditures from the account may be used only for the purposes described in sections 6023 and 4005, chapter 413, Laws of 2019 and RCW **47.68.460** and **47.68.470**. Only the community aviation revitalization board or the board's designee may authorize expenditures from the account. The account is subject to allotment procedures under chapter **43.88** RCW, but an appropriation is not required for expenditures.

[**2021 c 175 § 8.** Prior: **2019 c 413 § 7037**; **2018 c 298 § 7010**; **2018 c 2 § 7028.**]

NOTES:

Findings—Effective date—2021 c 175: See notes following RCW **47.68.430**.

Link to legislation - [RCW 47.68.470: Community aviation revitalization board—Public use general aviation airport loan program. \(wa.gov\)](#)

Wyoming State Infrastructure Loan Program

16-1-111. Loans to political subdivisions; requirements; limitations; rulemaking.

(a) The state loan and investment board may negotiate and make loans from the permanent Wyoming mineral trust fund to political subdivisions of this state as provided in this section. The aggregate sum of all outstanding loans made under this section shall not exceed one hundred seventy-five million dollars (\$175,000,000.00). Loans may be made for infrastructure projects and street and road projects as provided in this section. The board shall adopt rules and procedures as it deems advisable or necessary to administer the program. The rules shall include requirements and standards which the board determines to be necessary or advisable in accordance with the following:

(i) To qualify for a loan an applicant shall demonstrate:

(A) A commitment to adequately maintain the project for which the loan is requested during a reasonable period of time;

(B) That all project costs will be funded at the time of receipt of the loan, with funding sources specified within the project application;

(C) Compliance with any other criteria developed by the board consistent with this section.

(ii) The determination of whether to make a loan shall include consideration of:

(A) The contribution of the project to health, safety and welfare;

(B) The applicant's need for the project and financial needs of the applicant in relation to the project;

(C) The ability of the applicant to repay the loan.

(b) Loans may be made to cities, towns, counties, special districts specifically involved in providing facilities or functions enumerated in W.S. 16-1-104(c), school districts and community college districts for infrastructure projects and to airport boards and joint powers boards for projects for the construction, development and improvement of airport facilities generating user fees. A loan under this subsection shall be at an interest rate equal to the yield on a United States treasury security of the same duration of the loan. The board may add an additional percentage not to exceed two percent (2%) as a risk premium to the interest rate established under this subsection. The rate of interest for all loans issued under this subsection shall not be less than three percent (3%). In the event of prepayment of a loan, the interest rate shall be calculated at the actual loan period, but no refund of interest payment shall be made to the borrowing entity. Any loan made under this subsection shall be for a term of not fewer than five (5) years and not greater than twenty-five (25) years for repayment. Adequate security for loans shall be required and may include:

(i) A pledge of the revenues from the project for which the loan was granted;

(ii) A pledge of other revenues available to the entity receiving the loan;

(iii) A mortgage covering all or any part of the project or by a pledge of the lease of the project;

(iv) Any other security device or requirement deemed advantageous or necessary by the board.

(c) Loans may be made to cities, towns and counties for road or street projects. To qualify for a road or street project loan, in addition to the requirements of subsections (a) and (b) of this section, an applicant shall demonstrate that all related infrastructure including water and sewer is or will be in place at the time of receipt of the loan. No loan shall be provided under this subsection to any city, town or

county that has any outstanding or unpaid loan under this subsection. Any loan under this subsection shall be at an interest rate equal to the yield on a United States treasury security of the same duration of the loan. The board may add an additional percentage not to exceed two percent (2%) as a risk premium to the interest rate established under this subsection. The rate of interest for all loans issued under this subsection shall not be less than three percent (3%). In the event of prepayment of a loan, the interest rate shall be calculated at the actual loan period, but no refund of interest payment shall be made to the borrowing entity. Any loan made under this subsection shall be for a term of not fewer than five (5) years and not greater than twenty-five (25) years for repayment.

(i) Repealed by Laws 2023, ch. 135, § 2.

(ii) Repealed by Laws 2023, ch. 135, § 2.

(iii) Repealed by Laws 2023, ch. 135, § 2.

(d) Loans may be made to irrigation or water conservancy districts for replacement or major maintenance projects of storage, diversion, transmission, and distribution systems. A loan under this subsection shall be at an interest rate equal to yield of a United States treasury security of the same duration of the loan. The board may add an additional percentage not to exceed two percent (2%) as a risk premium to the interest rate established under this subsection. The rate of interest for all loans issued under this subsection shall not be less than three percent (3%). In the event of prepayment of a loan, the interest rate shall be calculated at the actual loan period, but no refund of interest payment shall be made to the borrowing entity. Any loan made under this subsection shall be for a term of not fewer than five (5) years and not greater than twenty-five (25) years for repayment. The board shall require an irrigation or a water conservancy district to apply for other grant or loan programs prior to authorizing a loan under this subsection. Adequate security for loans shall be required and may include:

(i) A pledge of the revenues from the project for which the loan was granted;

(ii) A pledge of other revenues available to the irrigation or water conservancy district receiving the loan;

(iii) A mortgage covering all or any part of the project or by a pledge of the lease of the project;

(iv) Any other security device or requirement deemed advantageous or necessary by the board.

(e) No loan shall be made without the written opinion of the attorney general certifying the legality of the transaction and all documents connected therewith. An election approving the project and borrowing for the project by the qualified electors of the borrowing entity shall be required only if the attorney general determines such an election is otherwise required by law.

(f) There is created a loss reserve account for loans made under this section. A loan origination fee of one-half of one percent (0.5%) of the loan shall be paid by the loan applicant and deposited to the loss reserve account for any loan approved under this section. If, as a result of default in the payment of any loan made under this section, there occurs a nonrecoverable loss either to the corpus of, or interest due to the permanent Wyoming mineral trust fund, the board shall restore the loss to the permanent fund using any funds available in the loss reserve account. If the funds in the loss reserve account are insufficient to restore the full amount of the loss, the board shall submit a detailed report of the loss to the legislature and shall request an appropriation to restore the balance of the loss to the permanent fund.

(g) As used in this section:

- (i) "Board" means the state loan and investment board to include the office of state lands and investments;
 - (ii) "Infrastructure project" means a capital construction project which may lawfully be undertaken within the powers of the political subdivision authorized to receive a loan under this section;
 - (iii) "Road or street project" means the construction, maintenance or improvement of a public street, road or alley within a city, town or county.
- Link to legislation - [Title - 16.docx \(wyoledg.gov\)](#)



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