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# EXECUTIVE SUMMARY

The purpose of the Master Plan Study Update was to consider the influences affecting the demand for aviation facilities and services within the McKinnon St. Simons Island Airport market area and to develop a realistic plan to safely and efficiently satisfy anticipated airport needs over the future 2000 to 2020 time period. To do so, the study began with an assessment of existing conditions followed by forecasts of aircraft operations and based aircraft. Comparing these forecasts to the existing conditions led to the identification of facility improvements needed during the study period and beyond. Each of these steps is summarized in the information below.

### AIRPORT HISTORY

McKinnon St. Simons Island Airport (SSI) is a public owned facility, whereby its current role in the national aviation system is to meet the needs of area residents and local businesses, general aviation patrons, and other airport tenants. The existing and potential role of any airport is affected and in some instances, dictated by factors such as historical events, geographic location, acreage, and surface transportation.

Malcolm B. McKinnon Airport, constructed on St. Simons Island in 1938, marked the beginning of airport development in the County. SSI once served as a naval base. After the war, the airport was utilized for general aviation and commercial purposes. Air South offered commercial service for Brunswick and the Golden Isles at SSI prior to 1970. However, in August 1970 Air South began to provide service out of Brunswick Golden Isles Airport (formerly Glynco Jetport). In August of 1974 Air South terminated service at Brunswick Golden Isles Airport, and reinstated service out of SSI. Florida Airlines purchased Air South in February 1975, which continued to serve the area until 1980. Since 1981, there has been no air carrier service at the Airport.

Today, McKinnon St. Simons Island Airport is a general aviation – utility airport located on St. Simons Island in Glynn County, Georgia, approximately five miles east of the City of Brunswick. Brunswick is situated in the southeastern coastal region of Georgia’s first congressional district, 80 miles south of Savannah, Georgia and 75 miles north of Jacksonville, Florida. Glynn County maintains fee simple ownership of 320 acres at Malcolm B. McKinnon Airport. The Glynn County Airport Commission (GCAC) operates the airport for the County. The airport’s service area encompasses Glynn County, as well as outlying areas including Camden, Brantley, Wayne, and McIntosh counties.

### AIRPORT FACILITIES SUMMARY

A description of each of the components of the Airport as it existed in 2001 is summarized below. Included are the airfield, general aviation facilities, other miscellaneous support and ancillary facilities. An inventory of all primary airfield components was inclusive to the March 1999 inventory process. Data pertaining to: runway length, width, pavement strengths, designations, usage characteristics, wind coverage, lighting and marking; taxiway orientations, strengths, widths, separations, and deficiencies; visual and electronic navigational aids; airspace configuration and usage; and obstructions to the runway protection zones and surrounding airspace were collected. **Table I** provides a concise accounting for all applicable airfield assets at the Airport.

### DEVELOPMENT COSTS AND PROGRAM PHASING

A schedule of estimated capital costs for each recommended project at the McKinnon St. Simons Island Airport has been identified through the year 2020 and is shown in **Table 4**. Tabulations shown throughout the implementation chapter are provided for the following: Phase I (present – 2005), Phase II (2006 – 2010), and Phase III (2011 – 2020).

**Table 4**  
*Schedule of Estimated Capital Costs (2000 Dollars)*

Development Area	Phase I 2000 - 2005	Phase II 2006 - 2010	Phase III 2011 - 2020	Program Total
Airfield	\$7,162,500	\$4,535,350	\$2,250,000	\$13,947,850
General Aviation	\$1,271,400	\$2,192,880	\$2,340,850	\$5,805,110
Miscellaneous	\$62,000	\$2,808,100	\$0	\$2,870,100
<b>Total</b>	<b>\$8,495,900</b>	<b>\$9,536,330</b>	<b>\$4,590,850</b>	<b>\$22,623,060</b>

Source: THE LPA GROUP INCORPORATED Analysis, 2001.

### FUNDING SOURCES

This section describes the types of funds potentially available to the Glynn County Airport Commission for financing the proposed capital improvements. The four main categories of potential funding include Federal, State, local, and private sources. **Table 5** presents the Airport Capital Improvement Program broken down by funding source.

**Table 5**  
*Estimated Capital Costs and Funding Sources (2000 Dollars)*

Development Area	Estimated Capital Costs	Federal	State	Local
Airfield	\$13,947,850	\$12,553,265	\$517,100	\$877,485
General Aviation	\$5,805,110	\$1,186,560	\$225,000	\$4,939,550
Miscellaneous	\$2,870,100	\$1,980,000	\$128,750	\$761,350
<b>Total</b>	<b>\$22,623,060</b>	<b>\$15,719,825</b>	<b>\$870,850</b>	<b>\$6,032,385</b>

Source: THE LPA GROUP INCORPORATED Analysis, 2001.

**LAND USE PLAN**

As part of the master plan study, a land use concept was chosen as a framework to guide the implementation of future development and growth. The chosen land use concept retains airport support facilities in their current location east of Runway 16-34, with additional area reserved for expansion immediately adjacent to existing facilities. A new area north of Taxiway C is proposed in the midfield area for the location of a new ARFF facility in the future. Remaining areas east of Runway 16-34 have been reserved for aviation related development, specifically FBO expansion. Additional aviation related areas are proposed for the midfield area north of the closed runway/Skylane Road, including a second future FBO, T-hangars and individual hangars, and corporate aviation development. Corporate aviation apron expansion is reserved for the area south of the existing apron. Non-aviation development is proposed for fringe areas abutting roadways and the area south of the midfield development. Finally, Open/buffer areas remain on the fringe areas of the airport, and will serve as areas for corporate aviation development in future years.



**AIRPORT IMPROVEMENTS**

Various alternative development concepts were evaluated to determine the optimum location and configuration to accommodate the defined facility requirements. The selected concepts were then shown on the Airport Layout Drawing, which establishes the future configuration of all runways, taxiways, and aprons, and also identifies areas set aside for the expansion of the general aviation areas, airport support facilities, and other aviation related areas to meet the needs of the Airport through the year 2020. In addition, areas are shown which should be reserved for development beyond 2020. Land that may be acquired, either to maintain compatibility between airport operations and development near the Airport or to allow for the expansion of aviation-related and revenue-producing facilities, is also depicted. These developments are shown on **Figure A** in the middle of this brochure.

The programmed improvements at the airport are subdivided into the following major categories: airfield, general aviation area, land use, and surface transportation. Items depicted on the Airport Layout Drawing, which are either included in the 20-year capital program or scheduled as ultimate improvements, are briefly addressed in this section.

**Airfield**

Major airfield improvements physically depicted for McKinnon St. Simons Island Airport include:

- ◆ Extend both ends of Taxiway A to join Runway 4-22;
- ◆ Relocate southern portion of east side parallel Taxiway E to maintain a centerline-to-centerline separation of 240 feet with Runway 34;
- ◆ Construct departure queue capability at both ends of Runway 4-22;
- ◆ Construct exit taxiway at mid-point of Runway 16-34 on east side;
- ◆ Enhance fillet radii at various runway/taxiway intersections for Runway 16-34;
- ◆ Install EMAS at Runway 4 and 22 ends;
- ◆ Construct west side full-length parallel taxiway to Runway 16-34.

**Table 1  
Existing Facilities Summary**

General Airport Information			
Name and Identifier	McKinnon St. Simons Island Airport (SSI)		
Ownership	Public		
Airport Field Elevation	19.6' MSL		
Airport Reference Code	B-II		
Airport Reference Point	Latitude: 31 09' 10" N; Longitude: 81 23' 63" W		
Runway Data	4-22	16-34	
Bearing (true)	36 05' 15" E	25 07' 59" W	
Length	5,800'	3,313'	
Displaced Threshold	Yes	No	
Width	100'	75'	
Pavement Strength	S-45, D-60	S-14, D-30	
Marking	Non-Precision	Basic Visual	
Type & Condition	Asphalt – Excellent	Asphalt – Fair to Good	
Effective Runway Gradient	0.12%	0.18%	
Obstruction Clearance Slope	34:1	20:1	
Runway Lighting	MIRL	MIRL	
Landing and NAVAIDs	4-VOR, GPS, PAPI-2L, 22-NDB, VOR, GPS, REIL, PAPI-2L	16-PAPI-2L, 34-PAPI-2L	
Airport Buildings			Navigational Aids
Fixed Base Operator (FBO)	13,500 SF	Rotating Beacon	Yes
T-Hangars	24 units	Wind Indicator	Yes-Lighted
Conventional Hangars	73,400 SF	Segmented Circle	Yes
Airport Maintenance	No dedicated facility	NDB	MCKINNON
ARFF	No on-site facility	ASOS	118.525
		CTAF/UNICOM	123.05
Apron			Automobile Parking Spaces
General Aviation	11,000 SY	Public/General Use Lot	87
		Public/Rental Car Ready	20
Fuel			
AVGAS (capacity: 12,000-gallons)	Yes	Employee/FBO	11
Jet A (capacity: 12,000-gallons)	Yes	Employee/Aircraft Sales	28
Mobile Fuel Trucks	1 Jet A, 2 AVGAS	<b>Total</b>	<b>146</b>

## Runway 4-22

5,800 ft. x 100 ft.

## Runway 16-34

3,313 ft. x 75 ft.

The existing airfield configuration at SSI consists of two active runways, the primary Runway 4-22 and the crosswind Runway 16-34.

Currently, Runway 4-22 measures 5,800 feet in length and 100 feet in width. Both runway ends 4 and 22 are marked for displaced thresholds of 1,000 feet and 910 feet. This results in available lengths of 4,800 feet and 4,680 feet for landing on runway ends 4 and 22, respectively. Runway 16-34 is 3,313 feet long and 75 feet wide. Both runways are served by parallel taxiways and an array of entrance and exit taxiways to facilitate the efficient movement of aircraft on and off the runways.

General aviation facilities at SSI are located on the northern side of the airport adjacent to the apron. Other GA facilities lie in the midfield area. A single FBO, Golden Isles Aviation (GIA), services general aviation at SSI. In 1999, McKinnon St. Simons Island Airport was home to 72 general aviation aircraft: 56 single-engine, 14 multi-engine, 1 turboprop, and 1 rotorcraft. The facilities available to based and transient users include a mix of storage hangars, apron tie-down spaces, terminal facilities, fueling services, automobile parking areas, weather information, rental car, and other aircraft maintenance related services.

**Table 1** lists other airport support facilities including airport maintenance, aircraft rescue and fire fighting (ARFF) facilities and fuel storage capacities. In 1999, there were no dedicated areas established for building maintenance and parts storage or for airfield vehicle maintenance, equipment and supplies storage at SSI.

Currently the airport does not have ARFF facilities on-site. The Glynn County Fire Department Station No. 2 serves SSI and is located approximately one mile from the airport. The GCAC has a mutual aid agreement with the Glynn County Fire Department that operates the station and provides all necessary personnel and support for airport protection, as well as emergency medical support services. The station is open and manned 24 hours a day, seven days per week, by twelve firemen.

The FBO, Golden Isles Aviation, owns and operates the current fuel storage facility at the Airport. Each of the underground tanks for AVGAS and Jet-A hold 12,000 gallons. In the absence of a fuel pipeline, fuel trucks deliver fuel to the farm.

There is an array of other public and commercial non-aviation facilities on the Airport. In the east terminal area, these include Glynn County Public Works Demere Annex, Tyler Animal Hospital, Rich Sea Pak Corporation, Island Automotive Center, St. Simon Car Wash, Forbes Electronics and Interiors by Barb. In the southeast terminal, other facilities include Information Electronics, Floor Décor Inc., Worthy Pools and Spas, Island Home and Landscape Center, Garrison Inc. Concept Completion Advertising, and Low Country Candles. The airport industrial park is home to other business including Brooks Auto Parts, B & M Auto Care Inc., the Bailey Boys, Dr. Davies' Detailing, and Stepping Stone Quilts.

Improvements associated with the general aviation area also occur throughout the various phases of the 20-year program. These improvements involve three functional areas on the airport where GA development will take place over the forecast period. Developments on the midfield ramp include additional stacked individual hangars (27), nested T-hangars (48), and conventional corporate hangars (70,400 SF). Vehicular access and parking facilities are made available throughout the development site, and all future facilities are oriented parallel to Taxiway C to maximize use of available space. Main taxiway access is provided along the northern boundary of the site through Taxiway D and on the west by Taxiway A. Automobile parking and hangar space will be developed on the east ramp. Finally, proposed development in the southeast quadrant of the airport includes an FBO terminal building with ample transient parking, several large hangars for aircraft storage and maintenance, vehicular access to the FBO via an entrance road connected to Airport Road, and a corporate hangar facility south of the FBO with 8 individual hangars and associated vehicular parking spaces.

### Surface Transportation

Proposed projects directly related to the general aviation areas are depicted as occurring in the immediate vicinity of the existing FBO and corporate operations. These improvements include the addition of paved vehicular parking and/or paved access throughout the 20-year study period.

Additionally, improvements have been planned as part of an effort by Glynn County to relieve traffic congestion of nearby Demere Road. Demere Road is the main corridor for automobiles to access ocean front areas directly south of the airport.

Since encroachments on Demere Road hinder the roadway from being widened, and the area is predominately a residential corridor, widening and realignment of Airport Road will alleviate these concerns by becoming the main access to the areas south of the airport.

## FACILITIES REQUIREMENTS SUMMARY

The capacities of various existing airport facilities were compared with demand projections for each horizon year of the study. The evaluation allowed deficiencies to be recognized, and identification of additional facilities required to meet demand. Some of the major facility requirements identified include:

- Runways:** Provide a usable landing length of 5,001 feet for Runway 4.
- Taxiways:** Construct additional entrance taxiway at the end of Runway 22.  
Construct a full-length parallel taxiway for Runway 16-34 on its western side.  
Maintain adequate lateral separations for future taxiways whenever the presence of precision instrument landing NAVAIDS is anticipated.  
Equip all new taxiway constructions with MITLs.
- NAVAIDS:** Include Local Area Augmentation System (LAAS) ground facility at the airport.  
Install REILs on both ends of Runway 16-34.



**Table 3** presents a summary of the general aviation and ancillary facility requirements.

**Table 3**  
*Summary of Facility Requirements*

Facility	Existing	Future Requirements		
	1999	2005	2010	2020 or Beyond
<b>General Aviation Facilities</b>				
Conventional Hangars (SF)	62,420	74,523	87,400	105,708
T-Hangars	24	32	34	37
Total Apron Area(SY)	23,703	34,764	41,284	49,985
GA Terminal (SF)	10,780	15,180	17,380	22,165
Automobile Parking	126	198	205	227
<b>Ancillary Facilities</b>				
ARFF Index	2	2	2	A
ARFF Station (SF)N/A	N/A	N/A	1,600	
Airport Maintenance (SF)	0	2,350	2,350	
AVGAS (15-day) Storage (gallons)	7,560	8,640	9,720	11,880
Jet-A (7-day) Storage	8,316	12,733	16,100	22,750

## FORECASTS OF AVIATION ACTIVITY

This section presents a summary of the projections of aviation demand that formed the basis for future development at McKinnon St. Simons Island Airport. By providing a measure of future aviation-related activity, these forecasts were used during the study effort to determine airport facility requirements in the short, intermediate, and long-term. These forecasts also determined the Airport's future role in terms of aircraft to be accommodated, and thus, the type of aviation demand to be served. Moreover, they provided the foundation for evaluating the ability of the existing airport facilities to meet demand. **Table 2** presents a summary of the activity forecasts.

General aviation demand at SSI is forecasted to grow positively over the term of the planning period. Based aircraft numbers are anticipated to grow to 139 by the year 2020. With regard to the fleet mix, a greater percentage of turbine and rotor aircraft are projected following national trends. The predicted increase in general aviation fleet flying hours nationwide will not only be due to utilization of more turbine aircraft covering greater distances, but also due to an increase in the number of operations conducted by the active fleet. Thus the number of takeoffs and landings per based aircraft is forecasted to grow at SSI. This factor, when combined with the increase in based aircraft, projects growth in airfield operations of approximately 3.6 percent annually, expected to reach a total of 28,448 total annual operations by the end of the forecast period. Average Day Peak Month (ADPM) operations will increase from 165 to 298; thus, peak hour operations will rise to 48 by the year 2020.

**Table 2**  
*Forecast Summary*

Activity	Base Year	Forecast Years		
		2005	2010	2020
<b>Based Aircraft</b>				
Single-Engine	56	73	80	89
Multi-Engine	14	25	29	34
Jet	0	2	3	5
Turboprop	1	3	3	5
Rotor	1	3	5	6
<b>TOTAL BASED AIRCRAFT</b>	<b>72</b>	<b>106</b>	<b>120</b>	<b>139</b>
<b>Annual Aircraft Operations</b>				
Itinerant	34,027	48,338	55,334	70,873
Local	4,861	6,592	7,546	9,664
Military	768	800	800	800
<b>TOTAL GA OPERATIONS</b>	<b>39,656</b>	<b>55,730</b>	<b>63,680</b>	<b>81,337</b>
<b>Average Daily Peak Month</b>	<b>165</b>	<b>232</b>	<b>255</b>	<b>298</b>

**FIGURE A**

