CHAPTER 2
INVENTORY OF EXISTING CONDITIONS

AIRPORT BACKGROUND

Overview

Merritt Island Airport (COI) is a general aviation airport serving the local aviation needs of Merritt Island, Cocoa, Titusville and the rest of Brevard County. The single runway, general aviation airport is home to 217 aircraft and handles approximately 113,500 annual operations. The following sections will provide an overview of the existing facilities at the airport which will be used as a baseline for future demand and development discussed throughout this report.

History

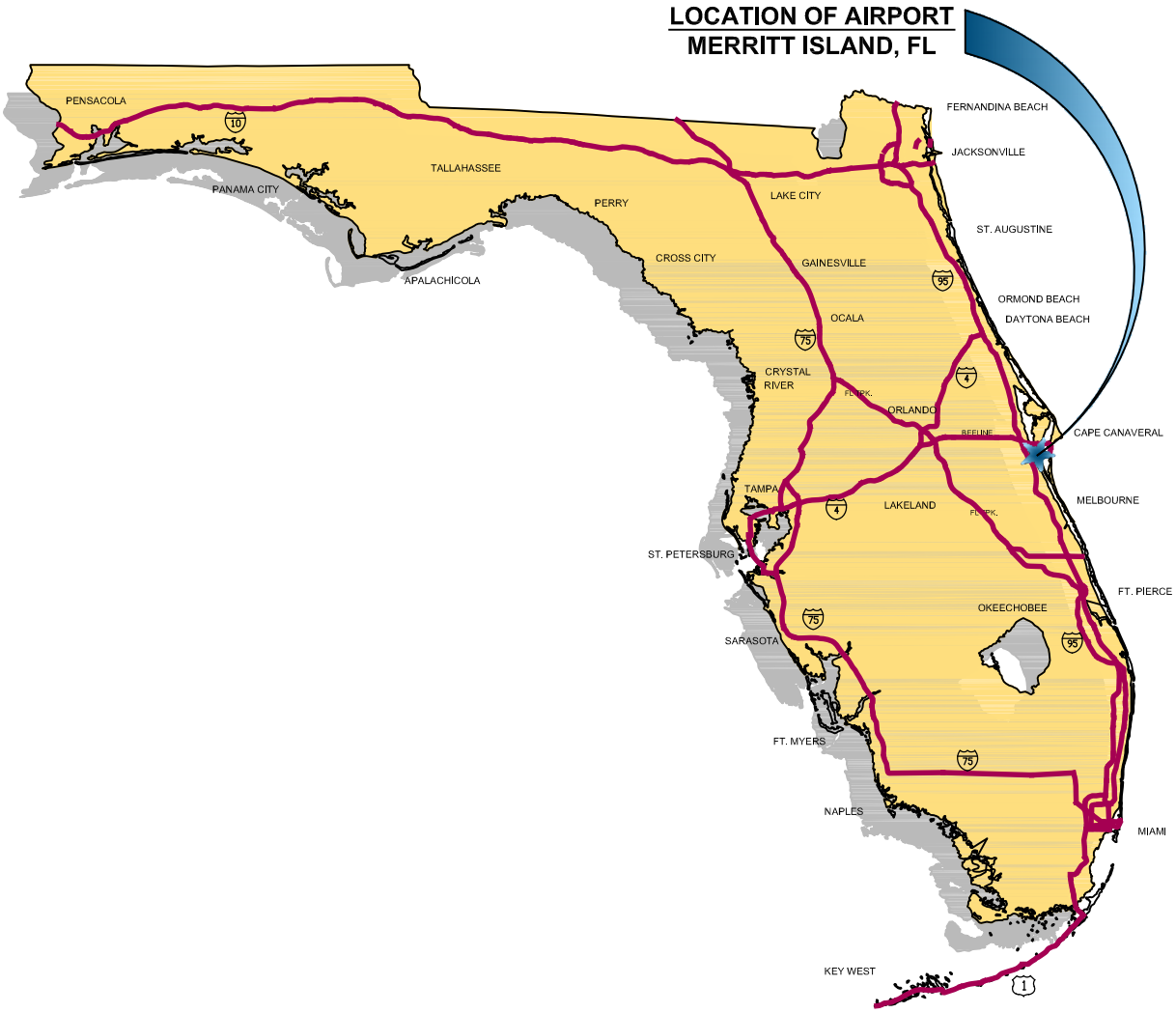
The Merritt Island Airport was constructed in the early 1940s by the Brevard County Mosquito Control. The airfield consisted of two turf runways: a north-south runway measuring 1,800 feet in length and a northwest-southeast runway measuring 3,000 feet in length. The north-south runway was eventually abandoned and is now occupied by T-hangars and other airport facilities.

The Brevard County Mosquito Control District deeded the airport property to the Titusville-Cocoa Airport Authority (TICO Authority) in exchange for ten acres of land located within Space Coast Regional Airport to be used by Brevard County as headquarters for the Mosquito Control District. The runway was later paved and further airport projects included taxiway improvements, hangar development and additional navigational and visual aids.

Location

The eastern coast of Florida is home to dozens of general aviation and commercial service airports. COI is located on the east central coast in Brevard County, Florida. Merritt Island proper is located within the Intracoastal Waterway just east of Titusville. Much of the island is occupied by National Aeronautics and Space Administration (NASA), with most of the residential and commercial use limited to the southern portion of the island.

The airport is located near the city center of Merritt Island, which is approximately half-way (16 miles) from Melbourne and Titusville. The airport is located within minutes of popular tourist venues of the NASA facility, Cocoa Beach and Port Canaveral and is an attractive location for itinerant traffic using small aircraft. **Figure 2-1** displays the location of COI as related to the surrounding area.



LPA	Brevard County - Merritt Island Airport Master Plan Update	AIRPORT LOCATION MAP		DATE 10/22/2008 2-1 FIGURE NO.

Airport Management

The Titusville-Cocoa Airport Authority was created in 1963 to foster the aeronautical needs of the local community. The TICO Authority owns and operates three airports: Merritt Island, Space Coast Regional, and Arthur Dunn Airpark as shown in **Figure 2-2**. Enabling state legislation for the TICO Authority allows authorization for ad valorem taxation, and issuance of general obligation bonds or revenue bonds to support airport development projects.

The current TICO Authority consists of seven members. Two members are appointed from each of Districts I, II, and IV and one member is appointed at-large by the Board of County Commissioners of Brevard County.

Airport Activity

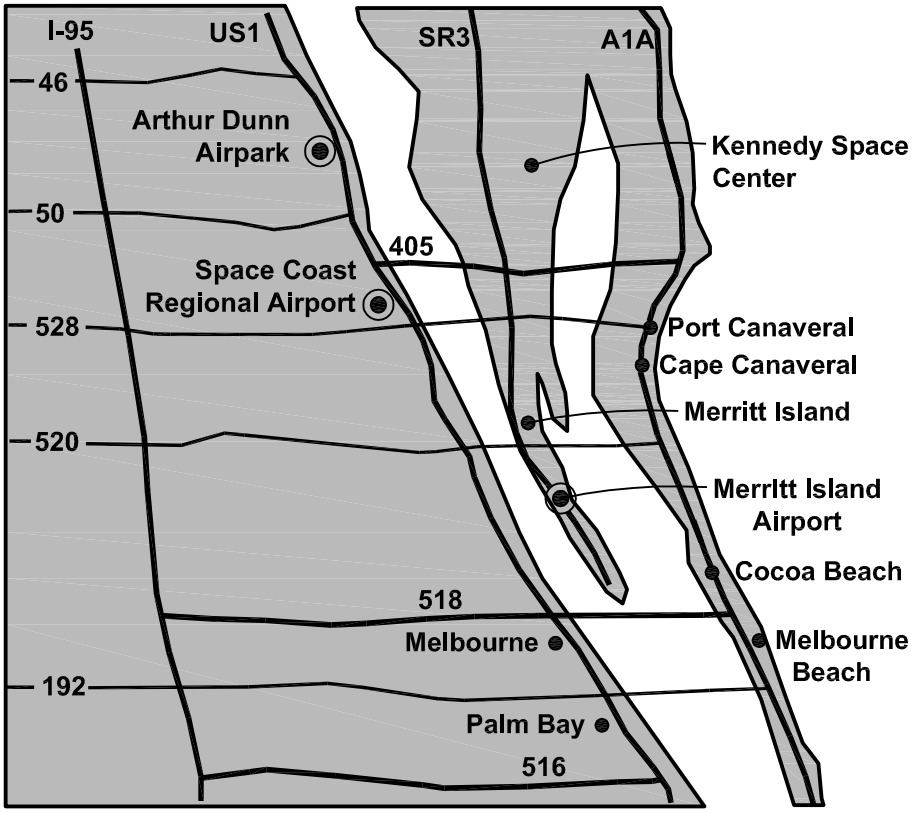
The Merritt Island Airport is a busy general aviation facility with approximately 113,500 annual operations or nearly 311 daily operations in 2007 according to FAA form 5010, Airport Master Record. The favorable location and on-site flight schools help the airport achieve the high levels of activity. Of the 113,500 annual operations, it is estimated that 64,000 are local general aviation operations, 48,000 itinerant, and 1,500 are air taxi. In addition to operations, COI is home to approximately 217[1] aircraft. Of these aircraft, 177 are single-engine, 24 are multi-engine, 8 are turboprop, 5 are helicopters and the remaining 3 (according to FAA records) are designated as experimental aircraft. The largest aircraft based at COI is a Beech King Air 200 which belongs to Baer Air, a local on-demand charter operator. Airport activity is exclusively general aviation, with on-site aviation activity including business aviation, flight training, recreational flying and banner towing.

AERONAUTICAL ROLE

National System

In the US, there are over 5,280 public use airports. Merritt Island Airport and over 3,400 others are designated by the FAA to be of significant interest to the national air transportation system and, therefore, eligible to receive federal grants for airport improvement. The FAA's National Plan of Integrated Airport Systems (NPIAS) defines the roles of these airports as one of four service levels, as displayed in **Table 2-1**. The NPIAS classifies COI as a general aviation facility.

[1] Based upon recorded based aircraft "N-Numbers" provided by airport management



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LPA	Brevard County - Merritt Island Airport Master Plan Update	Titusville - Cocoa Beach Airport System		DATE 10/22/2008 2-2 FIGURE NO.

Table 2-1
NPIAS Classifications

NPIAS Service Level	Criteria
Commercial Service – Primary	Public use commercial airports enplaning more than 10,000 passengers annually.
Commercial Service – Non Primary	Public use commercial airports enplaning between 2,500 and 10,000 passengers annually.
General Aviation – Reliever	General aviation airport having the function of relieving congestion at a commercial service airport and providing general aviation access to its community. Must have at least 100 based aircraft or 25,000 annual itinerant operations.
General Aviation	All other NPIAS airports

Source: 2007 FAA NPIAS (National Plan of Integrated Airport Systems).

State System

The Florida Department of Transportation (FDOT) has adopted the Continuing Florida Aviation System Planning Process (CFASPP) to promote a constant awareness of the opportunities and challenges facing all of the public airports throughout the state. The CFASPP identifies two types of airports: commercial service and community airports. Since COI serves only general aviation, it is classified as a community airport.

Regional Aviation System

COI is one of three airports serving the Titusville-Cocoa area and is owned and operated by the Titusville-Cocoa Airport Authority. The Titusville Space Coast Regional Airport (TIX) located 12 miles northwest of COI, provides a 7,319 feet runway with a precision approach. Arthur Dunn Airpark (X21), 19 miles to the northwest of COI provides a 2,961 feet paved runway with a non-precision GPS approach. Each of these airports primarily serves general aviation, with the majority of corporate and business traffic using TIX, because of the enhanced facilities. Due to current infrastructure, the service roles of these three airports are unlikely to change.

In addition to the airports within the Titusville-Cocoa Beach Airport System, the Melbourne International Airport (MLB) is located 14 miles to the south. MLB services a variety of general aviation, corporate and commercial service activity. The runway at MLB is 10,181 feet in length and offers a precision approach. Delta Air Lines provides service to MLB with daily flights to Atlanta, Georgia; additional commercial flights and airlines can be found at Orlando International Airport (MCO) located one hour to the west or at the Daytona Beach International Airport (DAB) located one hour to the north as shown in **Figure 2-3**. **Table 2-2** provides a comparison of airport facilities within the region.

National Plan of Intergrated Airport Systems (2007-2011)

LPA	Merritt Island Airport Master Plan Update	National Plan of Intergrated Airport Systems - North Florida	0 mi. 25 mi. 50 mi. SCALE: 1" = 50 mi.		DATE 10/22/2008
					2-3 FIGURE NO.

Table 2-2
Nearby Airport Profiles

Airport	Identifier	Distance (NM)	Longest Runway	Approach Type	Based Aircraft
Merritt Island	COI	0	3,601 ft	Non-precision	225
Titusville - Space Coast	TIX	12	7,319 ft	Precision	228
Melbourne International	MLB	14	10,181 ft	Precision	229
Titusville - Arthur Dunn	X21	19	2,961 ft	Non-precision	80
Valkaria	X59	24	4,000 ft	Visual	38

Source: FAA Form 5010, Airport Master Record, 2008.

AIRFIELD

Runway

Merritt Island Airport is served by a single asphalt runway measuring 3,601 feet in length and 75 feet in width. The runway is designated Runway 11-29; Runway 11 has a heading of 114º magnetic / 109º true and Runway 29 has a heading of 294º magnetic /289º true. The asphalt surface of the runway is documented being in fair condition and offers a weight bearing capacity of 22,000 pounds for aircraft in a single gear configuration. There is a 3 feet difference in runway elevation. The high point of 5.9 feet is at the Runway 11 threshold, and the low point of 2.9 feet is at the Runway 29 threshold. This results in a runway gradient of 0.1 percent.

Non-precision markings are painted in the runway surface; these painted markings are faded and are documented as being in fair condition. In addition to pavement markings, the runway is equipped with Medium Intensity Runway Lights (MIRLs) which consist of runway edge lights and runway threshold lights.

Taxiways

Two taxiways connect the apron areas to the runway at COI. Both taxiways are asphalt in good condition. Taxiway A, located on the south side of the runway, serves as a full length parallel taxiway. There are five exit taxiways located along Taxiway A, and a run-up and holding area located near the approach end of Runway 29. The taxiway is 35 feet in width and has standard yellow taxiway markings as well as being equipped with Medium Intensity Taxiway Lights (MITL), which omit a blue Omni directional light.

Taxiway B, located on the north side of the runway, is a partial parallel taxiway serving the western 2,300 feet of the runway. Aircraft requiring access to Runway 29 must cross the runway at the end of Taxiway B then use Taxiway A to access the approach end of the runway. Taxiway B provides three exits/entrances to the runway. The taxiway is 35 feet in width with standard markings and MITL. The taxiway markings including the runway hold position markings are faded and in fair condition.

Signage

A recent project at the airport updated all of the signage, lighting and airport electrical components; all of these components are in good condition. The airfield signage system consists of standard red runway hold position signs and yellow taxiway guidance signs.

NAVIGATIONAL AND VISUAL AIDS

Non-Directional Beacon (NDB)

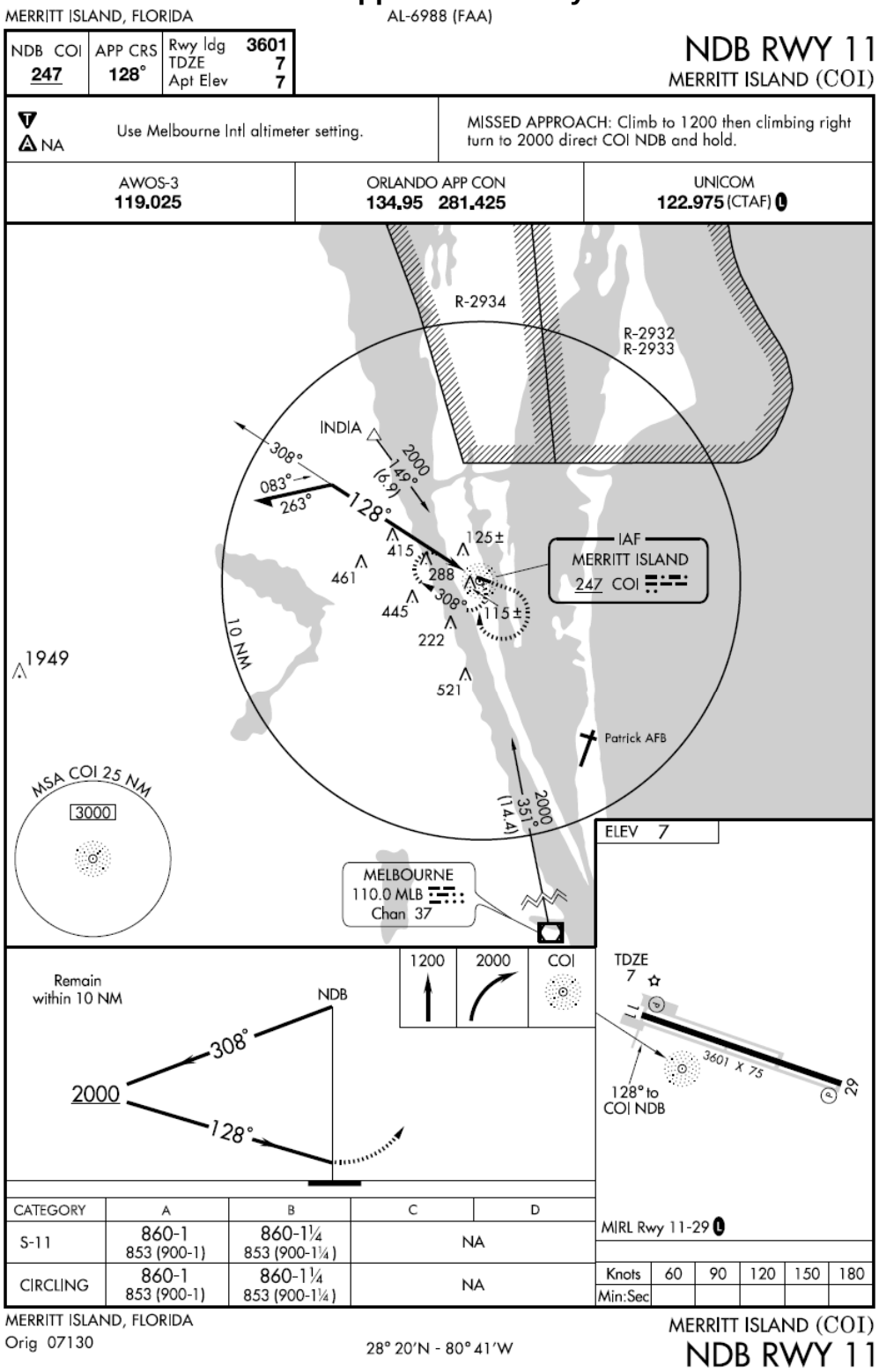
NDBs are ground based navigation stations that emit a single medium frequency signal, which is received by cockpit instruments. This instrument displays basic directional heading information to or from the station. COI is equipped with an on-site NDB, providing instrument approach procedure down to 860 feet MSL (853 feet AGL) and one statute mile visibility. The NDB is located near the electrical vault southeast of the FBO hangar. The NDB approach to Runway 11 is shown in **Figure 2-4**.

Satellite Based Navigation

Area Navigation (RNAV) non-precision approaches utilize Global Positioning System (GPS) technology for horizontal course guidance. GPS is a space-based navigation system comprised of satellites, transmitting stations, and user receivers. An aircraft receiver can track its position by calculating and comparing the signal distance from several satellites. Aviation GPS equipment often depicts position and area information, such as airspace and terrain, on a moving map display in the cockpit. Because no ground facilities are required at airports to operate this navigational system, the system is reliable in all weather conditions and terrain and is typically accurate to within 100 feet. RNAV is comprised of Lateral Navigation (LNAV) and/or Vertical Navigation (VNAV) components. Depending on the type of approach procedure, airports may have LNAV and VNAV capability or only LNAV capability. COI has a published LNAV approach to Runway 11 providing guidance to an elevation of 600 feet MSL (594 feet AGL) and one statute mile visibility.

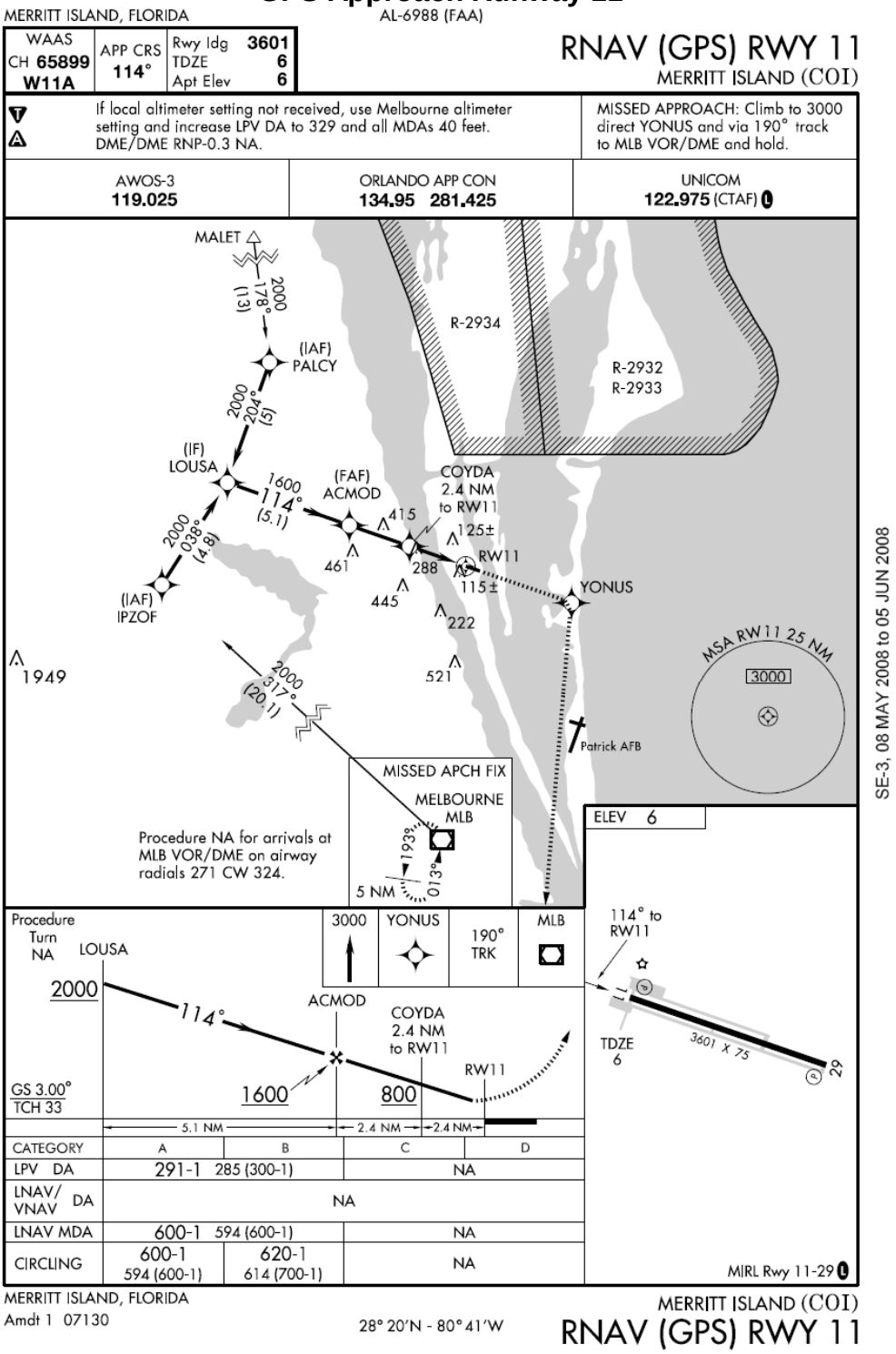
The Wide Area Augmentation System (WAAS) is a GPS-based navigation system, which augments the existing GPS signals by providing the user highly accurate position and tracking information. A Localizer Precision with Vertical Guidance (LPV) instrument approach utilizes WAAS technology to provide both vertical and horizontal course guidance to aircraft receivers. Although LPV approaches are non-precision, the accuracy is much greater than RNAV or ground based approach procedures, allowing lower descent minima. Like RNAV GPS navigation, LPV and other future WAAS approaches are available in all weather and terrain conditions. COI has a published LPV approach to Runway 11 providing guidance down to 291 feet MSL (285 feet AGL) and one statute mile visibility as shown in **Figure 2-5.**

Figure 2-4
NDB Approach Runway 11



Source: U.S. Terminal Procedures, Southeast, Volume 3, May 2008 – June 2008

Figure 2-5
GPS Approach Runway 11



Source: U.S. Terminal Procedures, Southeast, Volume 3, May 2008 – June 2008

Weather Reporting

COI is equipped with an Automated Weather Observation System (AWOS-3). An AWOS-3 provides pilots with an accurate assessment of on airport conditions for both departing and arriving traffic. On-site weather reporting is also a requirement for FAR Part 135 charter operations. The AWOS system measures the following meteorological conditions:

- Wind velocity and direction,
- Temperature and dew point,
- Visibility,
- Cloud cover and sky conditions,
- Barometric pressure, and
- Prevalent weather conditions (fog, thunderstorms, rain).

The AWOS equipment gathers meteorological data every minute and automatically transcribes current conditions via a designated radio frequency. Current weather conditions are also available via telephone and aviation weather websites.

Visual Approach Aids

Each of the runway approaches is supported by a 2-box Precision Approach Path Indicator (PAPI). The PAPI provides visual cues to pilots of the approaching aircraft identifying the appropriate glide path to the runway. Red lights indicate if the aircraft is too low, white lights if the aircraft is too high, while a combination of red and white lights signifies the proper glide path.

The airport is equipped with a rotating beacon which can be pilot activated over the aircraft radio. The rotating beacon is primarily used to help pilots identify the airport in flight by emitting a rotating white and green light, which identifies the airport as a public use facility.

The direction and velocity of the local wind is important for both arriving and departing pilots. A segmented circle and lighted wind cone are provided near the midpoint of the runway. An additional lighted wind cone is located near the approach of Runway 11.

AIR TRAFFIC MANAGEMENT

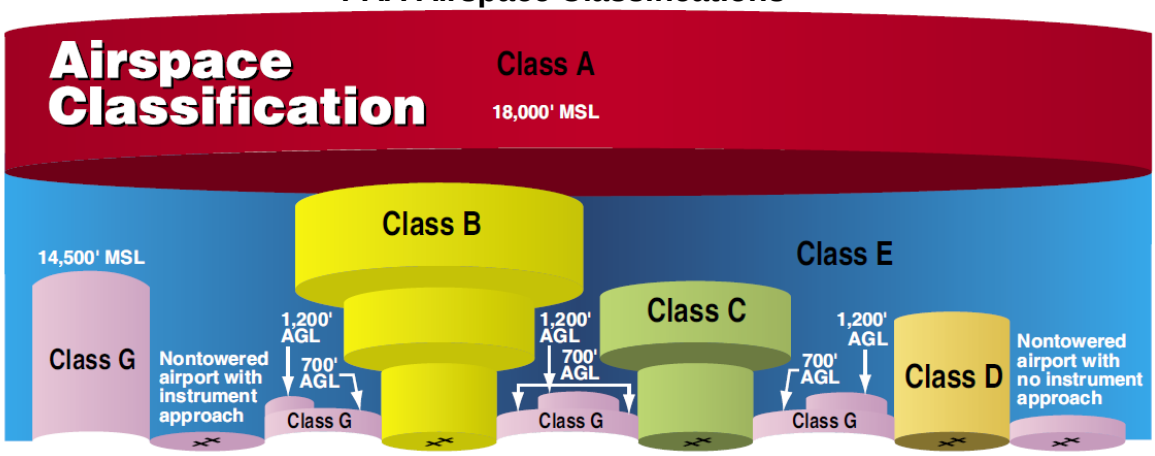
Communications

The Merritt Island Airport has been provided with a Common Traffic Advisory Frequency (CTAF) which allows pilots to communicate with one another when operating on or around the airport. Pilots announce intentions to users and other pilots in lieu of instructions from an air traffic tower, since there is no tower located at COI. The CTAF frequency for COI is 122.975. Approach and departure control for itinerant aircraft is available from Orlando center on 134.95.

Airspace

The airspace surrounding COI is Class G, which represents uncontrolled airspace. Class G airspace extends from the surface to 700 feet above ground level (AGL), Class E extends from 700 feet to 17,999 feet Mean Sea Level (MSL), and Class A extends beyond 18,000 feet MSL as shown in **Figure 2-6**.

Figure 2-6
FAA Airspace Classifications



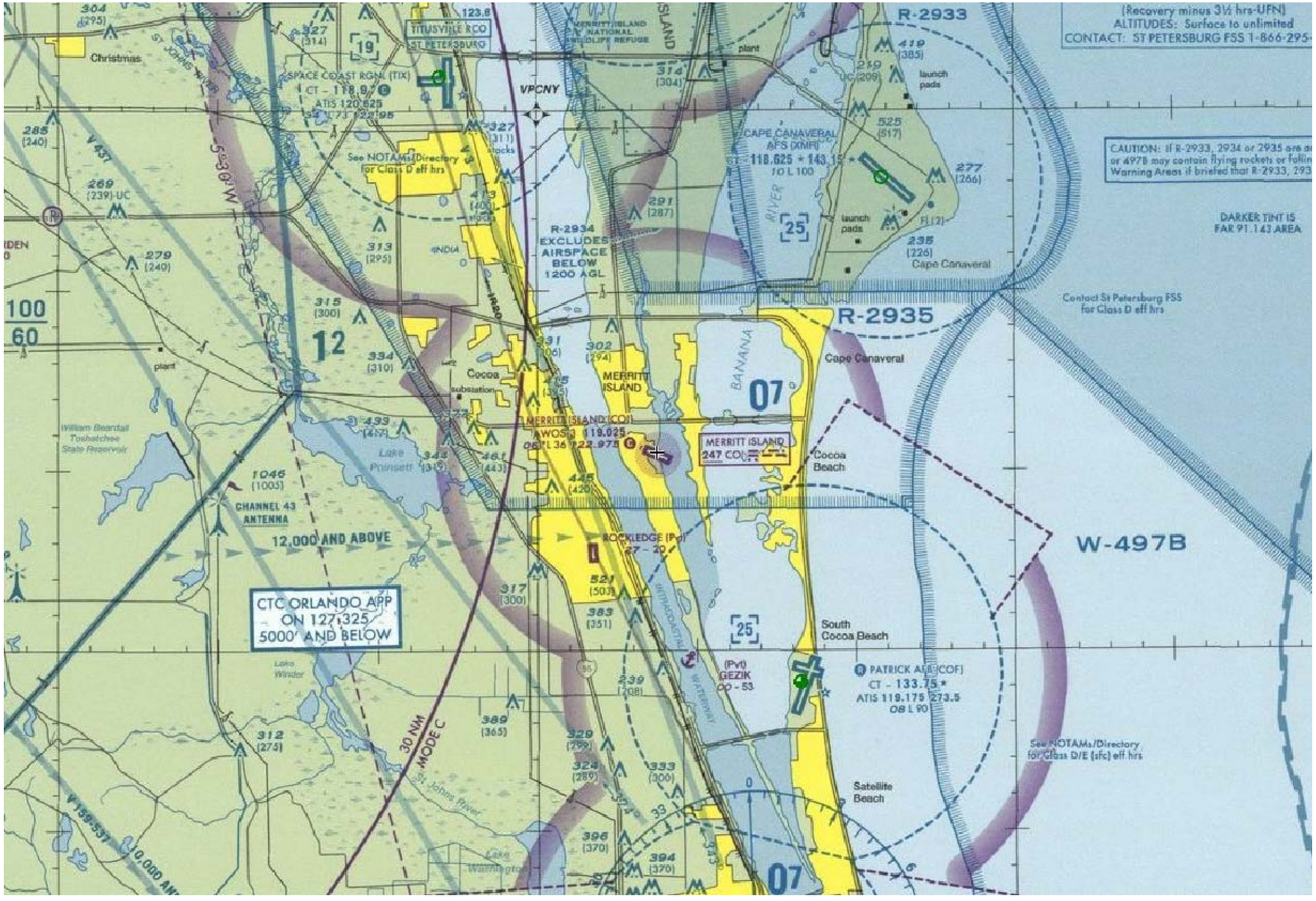
Source: FAA Pilot's Handbook of Aeronautical Knowledge, 2008.

Three airports within the Merritt Island Airport vicinity, Space Coast Regional, Patrick Air Force Base, and Cape Canaveral Air Force Station, are equipped with control towers, and, thus, have designated Class D airspace surrounding their facility. Class D airspace associated with each of these airports extends to within 10 nautical miles (NM) of COI. Further, because of the close proximity of NASA launch facilities, flight restrictions are occasionally implemented during launch activities. These Temporary Flight Restrictions (TFRs) are normally brief in duration during the period prior, during, and immediately after a launch. **Figure 2-7** provides a graphic of airspace surrounding COI.

LANDSIDE FACILITIES

Apron Space

There are two large apron areas at COI, each serving both local and itinerant aircraft. The apron area located south of the runway services the designated Fixed Base Operator (FBO) and provides parking and tie-downs for based and itinerant aircraft, including aircraft from the flight school co-located with the FBO. A total of 57 tie-downs are located on the south apron with typically 10 spaces in front of the FBO reserved for itinerant aircraft. The pavement and painted markings on this apron are in fair condition since some cracking was observed.



LPA	Merritt Island Airport Master Plan Update	Surrounding Airspace	N.T.S.		DATE 10/22/2008 2-7 FIGURE NO.

\\Tpa-data1\tampa\Planning\COI - Merritt Island\COI AMPU\Figures\Chapter 2\Fig 2-7_Surrounding Airspace.dwg October 23 2008-09:06

The apron on the north side of the runway also serves based and itinerant aircraft. The based aircraft using the apron include flight training aircraft by Voyager Aviation which has 13 aircraft. Sebastian Avionics also utilizes some of the tie-down space for their customers. A total of 36 tie-downs are located on the main apron area with an additional seven (7) tie-downs located on the Sebastian Avionics ramp. A total of 100 tie-downs are available at COI. All landside pavements at the airport are associated with a tie-down, ramp area or taxilane.

Hangars

Both the north and south sides of the runway contain extensive hangar development. There are 145 T-hangar bays and five conventional hangars located at the airport. On the south side of the runway, there are 86 T-hangar bays between 7 sets of T-hangars. An additional 15 T-hangar bays are located in stand-alone portable T-hangar units. Three conventional hangars are located on the south side: the FBO hangar, the Brevard County Sherriff's Aviation hangar, and a conventional hangar which is located in the T-hangar area.

The north hangar development is similar in nature with 54 T-hangar bays between 5 sets of T-hangars; there are no portable units on the north side.

There are two older conventional hangars on the north side, both serving business/ maintenance functions.

There is an extremely high demand for hangars at the airport. The current (April 2008) T-hangar waiting list contains 105 prospective lessees, 6 of whom have an application date from 2001.

Surface Access

The airport is located adjacent to State Route 3, also known as South Courtenay Parkway. This two lane road runs north and south and connects the southern portion of Merritt Island to State Routes 520 and 404, which run east-west and connect to Highway A1A, US-1 and Interstate 95 as shown in **Figure 2-8**.

Development on the south side of the airport is directly accessible via the South Courtenay Parkway to Airport Road. The north side of the airport is also accessible via the South Courtenay Parkway by turning east on Cone Road and then south for one block on Gladiola Street.

Auto Parking

Public auto parking at COI accommodates a variety of users including employees, flight training students, charter passengers, pilots for tied down aircraft, as well as passenger greeters and other visitors. Hangar users, especially T-hangar users, typically park their automobiles inside their hangars when using their aircraft.

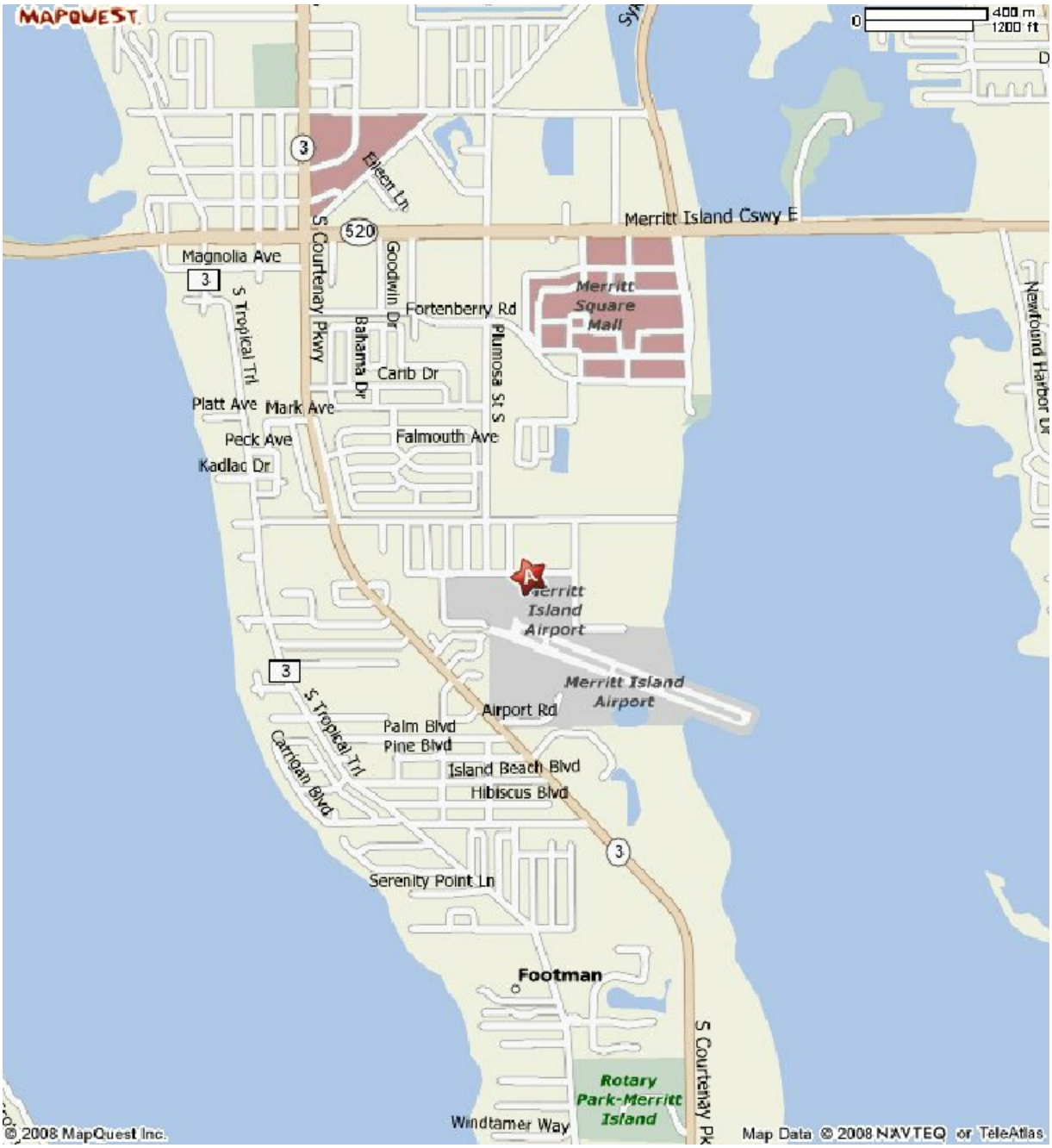
There are two public auto parking lots at COI. The large lot adjacent to the FBO contains approximately 84 paved parking spaces, while an additional lot on the north side of the airfield adjacent to the access gate contains an additional 15 paved spaces.

Security

Access points from the public side have been limited at COI to enhance the level of security. The airport is equipped with three paved vehicle access gates, two on the south side, and one on the north side, as well as a secure internal perimeter road which runs along the west side of the airfield. An additional vehicle gate is located on the west side of the airport for emergency access. Pedestrian access gates have also been limited and are each located near businesses on the airport.

Much of the airport is surrounded by a six-foot tall chain link fence topped with three strands of barbed wire. The airfield is encompassed by the perimeter fence with the exception being the Intracoastal Waterway and the densely wooded area directly adjacent to the water. To date, there has been no documented wildlife or security issues associated with a lack of fencing adjacent to the wooded areas or the seawalls.

The airside and landside facilities at COI are summarized in **Table 2-3** and displayed in **Figure 2-9**.



N.T.S.

LPA	Brevard County - Merritt Island Airport Master Plan Update	Surface Transportation		DATE 10/22/2008 2-8 FIGURE NO.

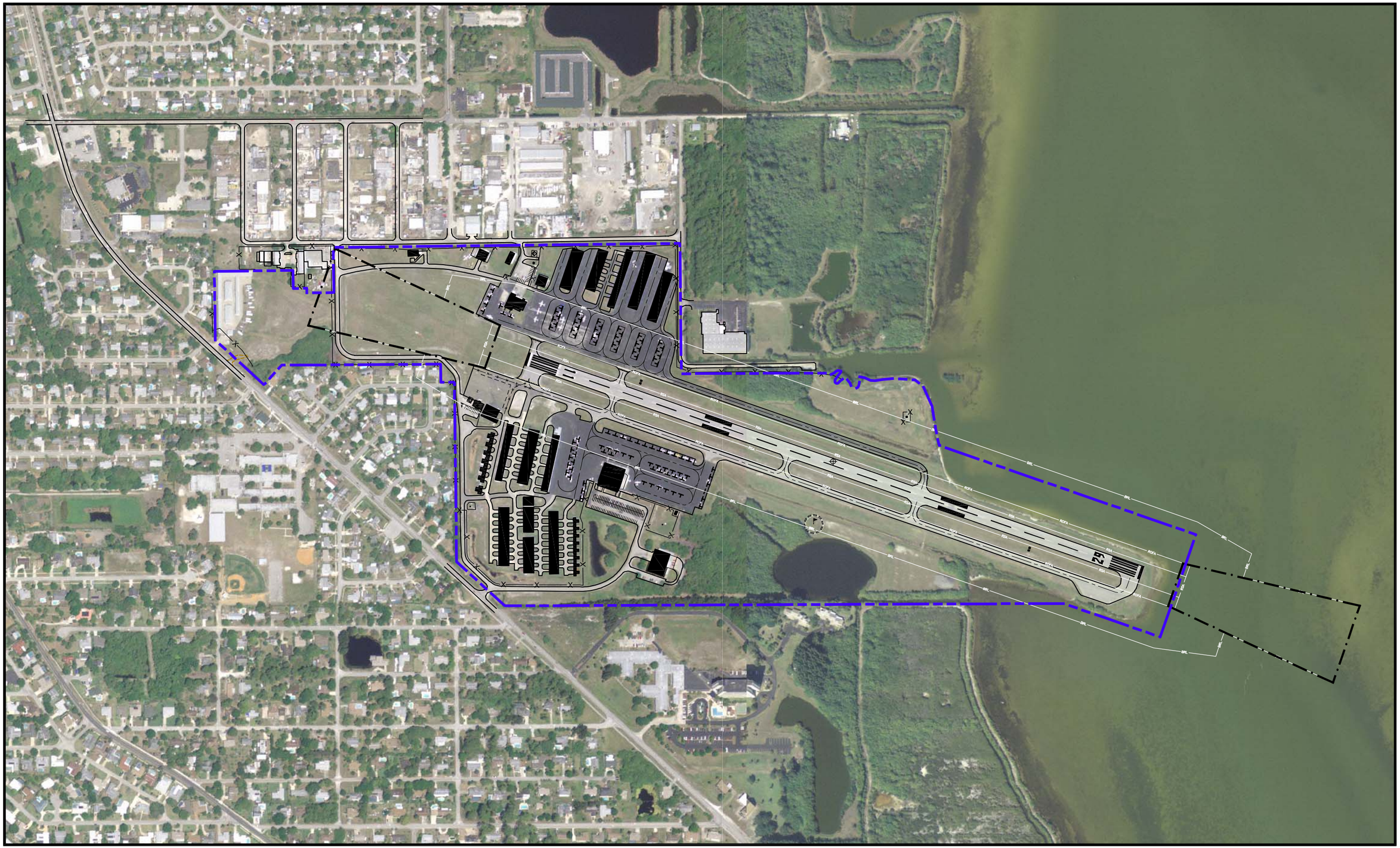
Table 2-3
Summary of Existing Facilities

Facility Information	
Airport Name	Merritt Island Airport
FAA Identifier	COI
FAA Site Number	03323.ºA
Ownership	Public – Titusville Cocoa Airport Authority
NPIAS Designation	General Aviation
Region/ADO	ASO – Orlando
Airport Field Elevation	6 ft
Airport Lat/Long	N 28º 20' 29.80" W80º 41' 07.70"
Runway and Taxiway Information	
Runway	
Runway Heading	11-29
Length	3,601 ft
Width	75 ft
Strength (lbs)	22,000 Single Wheel
Markings	Non-Precision - Fading
Surface	Asphalt
Condition	Fair
ARC Code	B-II*
Approach Type	Non-Precision
Visibility Minimums	285 ft AGL -1 mi (LPV-11)
Lighting and Approach Aids	
Edge Lighting Intensity	Medium Intensity
PAPI	2-box Runways 11 and 29
REIL	No
Taxiway	
Parallel	Full Parallel (A)/ Partial Parallel (B)
Condition	Good

Landside Facilities		Navigational Aids	
General Aviation Terminal	Yes	Rotating Beacon	Yes
No. T-Hangars	145	Wind Cone	Yes (Lighted)
No. Conventional Hangars	5	Segmented Circle	Yes
Other Bldgs.	4	Flight Service Station	St. Petersburg
		Sectional Chart	Jacksonville
Tie-downs	100	CTAF/Unicom	122.975
		Weather Reporting	119.025
Fuel Storage			
AVGAS		Auto Parking Spaces	99
Jet-A			

**Note: COI is designated as a B-II airport with a modification to standards related to non-standard runway-taxiway separation requirements.*

Source: The LPA Group Incorporated, 2008.



LPA	Merritt Island Airport Master Plan Update	Existing Airfield	0' 250' 500' SCALE: 1" = 500'		DATE 04/27/2008 2-9 FIGURE NO.

SUPPORT SERVICES & FACILITIES

Emergency Response

The airport is fortunate enough to have a Brevard County Fire Rescue (BCFR) Station located adjacent to the airport. Station 43 is located on the south side of the airport near the end of Airport Road. Unlike standard Airport Rescue and Fire Fighting (ARFF), the station primarily serves the local off-airport community; however, the station is the primary response for any on-airport incidents or accidents. The station is equipped with one fire truck and one rescue unit.

Local law enforcement is frequently in the vicinity of COI given the proximity of nearby major roads. The Brevard County Sherriff's Aviation Unit is based at COI; the unit has their own hangar containing four helicopters for use throughout Brevard County. While the primary purpose of the aviation unit is to respond to off-airport incidents and accidents, the law enforcement presence provides an enhanced level of security at the airport. The facility is staffed approximately 21 hours per day with plans to expand that to 24 hours in the future.

Airport Maintenance

The Titusville-Cocoa Airport Authority is responsible for the airfield maintenance at COI, as well as the other two airports in the system. The routine maintenance at COI primarily consists of maintaining the lights and signage in proper working order, ensuring that vegetation is properly groomed, and maintenance of any airport owned buildings. Airport tenants with building leases are responsible for their buildings as described in their respective leases. During the on-site interview it was noted that the airport maintenance representative was on-site several days throughout the week.

Fixed Base Operator

Presently there is one FBO, Atlas Aviation, located on the south side of the airport with offices located in a large hangar.

Atlas Aviation is the sole provider of fuel at the airport, using fuel tanks leased from the airport. Some of services provides by the FBO include but are not limited to:

- Pilot lounge,
- Conference rooms,
- Restrooms,
- Courtesy car,
- Flight training,

- Aircraft fueling,
- Oxygen, and
- Aircraft parking.

Fuel

Two underground fuel tanks provide storage for both Jet-A and 100 LL. The fuel is delivered to aircraft by fuel trucks owned and operated by the FBO. Recent changes in environmental regulations require that the underground tanks be removed. In 2009, the airport plans to replace the underground tanks with above ground tanks. In addition to the standard fuel storage tanks, self-service fueling capability is being considered, as it is not currently offered at the airport.

Electrical Vault

An electrical vault operates like a large circuit breaker for the electrical needs of the airport. This system regulates the electricity for the airfield signage, lighting and on-airport visual and navigational aids. The vault is located southeast of the FBO on the south side of the airport. A recent project at the airport replaced the electrical vault and rehabilitated the signage and lighting components.

LAND USE AND ZONING

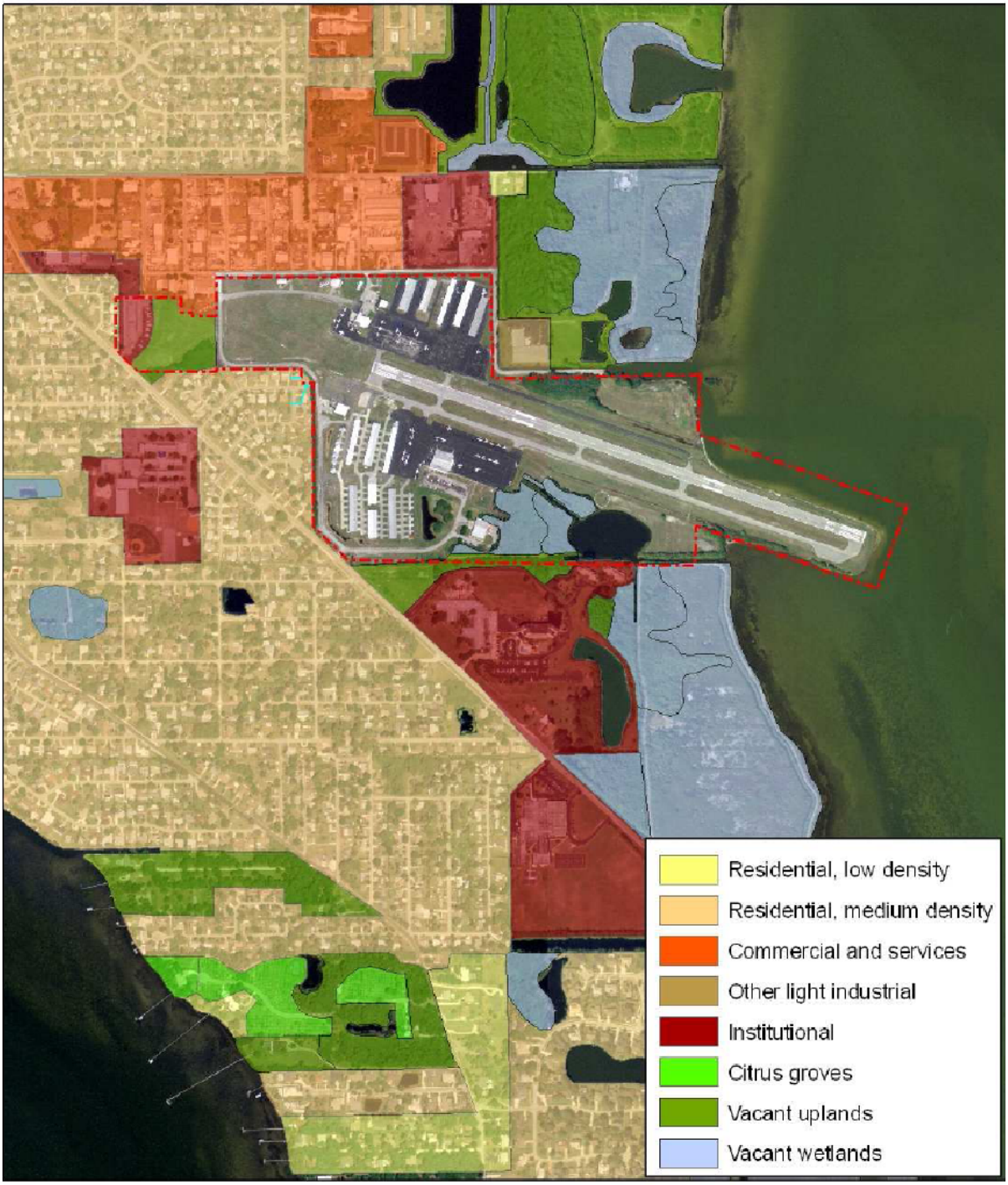
Brevard County, Merritt Island, and the Titusville Cocoa Aviation Authority has assigned land use and zoning designations to property within their respective jurisdictions. Existing and future land uses on and off airport property are important considerations with respect to the current and future development of the airport and community. Compatible land use issues and considerations will be utilized in the development of later chapters in this report. Zoning is another land use control which more clearly defines permitted uses of property within a given land use designation. As with the land use codes, this information will be discussed in later sections of the report.

Airport Zones and height restrictions for airports within Brevard County are outlined in Section 62-2201, Subdivision II – Airport and Airspace Restrictions, Code of Ordinances (Ordinance No. 08-01) Brevard County and coordinate with Florida State Law § 333.01. Airport zones and associated height and light restrictions include the approach, departure and transitional surfaces surrounding the airport as well as property located within the 65 DNL noise contours.

The area surrounding the airport consists of residential, commercial, and industrial land uses. The residential areas are located west, south and across the water on the approach end to Runway 29. Light industrial development is located in the area directly north of the airport adjacent to the north side general aviation area. There is significant commercial development, including a shopping mall, one mile north of the airport along the Merritt Island Causeway. This area is not under any runway approach, though it is in the vicinity of the airport traffic pattern.

There are two churches located under the Runway 11 approach: Merritt Island Presbyterian and Destiny Christian Church. Two schools are also located within a mile of the airport, The Tropical Elementary School and the Thomas Jefferson Middle School. Neither school is within the runway approach though both are located near the airport's traffic pattern as shown in **Figure 2-10**. Potential impacts to the surrounding facilities will be addressed in **Chapters 4**, *Demand Capacity/Facility Requirements*, and **5**, *Alternatives Analysis*, of this report.

Figure 2-10
Off Airport Land Use



Source: Brevard County Land Use Data, 2007

ENVIRONMENTAL REGULATORY REQUIREMENTS

In addition, in order to assist Titusville Cocoa Aviation Authority in considering the environmental factors that may impact future development at COI, the following national, state and local legislation was considered. This overview of regulatory guidelines will assist the sponsor and the planning consultant in developing alternatives that are tailored to the airport's size, unique setting and operating environment while also considering the airport's environmental setting, the identification of environmentally related permits and the potential impacts of recommended development projects. An in-depth analysis of existing environmental conditions at COI is provided in **Appendix B**, *Natural Features Inventory*, of this report.

Water Quality

Legislation

The Federal Water Pollution Control Act, as amended by the Clean Water Act, provides the authority to establish water control standards, control discharges into surface and subsurface waters, develop waste treatment management plans and practices, and issue permits for discharges and for dredged and filled materials into surface waters. The Fish and Wildlife Coordination Act requires consultation with the United States Fish and Wildlife Service (USFWS) and the Florida Fish and Wildlife Conservation Commission (FFWCC) when any alteration and/or impounding of water resources is expected. The Federal National Pollution Discharge Elimination System (NPDES) permit program provides regulations that govern the quality of stormwater discharges into water resources of the United States.

Regulatory Agencies

The United States Army Corps of Engineers (COE), the Florida Department of Environmental Protection (FDEP), and the Saint Johns River Water Management District (SJRWMD) have jurisdiction over and regulate activities that alter the landscape and disrupt water flow to wetland areas and surface waters through the Environmental Resource Permitting (ERP) Program in Florida. The program forwards permit applications to other state and federal agencies including the FFWCC and the USFWS. Permitting requirements for construction that exceeds five acres are specified by NPDES regulations and administered by the FDEP.

Historical, Architectural, Archaeological, and Cultural Resources

Legislation

The National Historic Preservation Act of 1966 and the Archaeological and Historic Preservation Act of 1974 provide protection against development impacts that would cause change in historical, architectural, archaeological, or cultural resources.

Regulatory Agencies

The Department of State, Division of Historical Resources is responsible for promoting historical, archaeological, museum, and folk culture resources in Florida.

Biotic Communities

Legislation

The Fish and Wildlife Coordination Act (48 Statute 401 as amended; 16USC et. Seq.) considers impacts to habitat and wildlife. Section 2 of this act requires consultation with USFWS, the United States Department of the Interior (USDI), and state agencies that regulate wildlife whenever water resources are modified by a federal, public, or private agency under federal permit of license.

Regulatory Agencies

The USFWS and FFWCC have authority under the act to provide comments and recommendations concerning vegetation and wildlife resources.

Endangered and Threatened Species

Legislation

The Endangered Species Act of 1973 (ESA), as amended, requires federal agencies, in consultation with and assisted by the USFWS, to ensure that their actions are not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat of such species. Section 7 of the Act states that federal agencies must review their actions: If those actions will affect a listed species or its habitat, they must consult with the United States Fish and Wildlife Service.

Regulatory Agency

The USFWS, the Florida Department of Agriculture and Consumer Services (FDACS), and the FFWCC have jurisdiction over and administer native endangered and threatened species permits for Florida. During the consultation process, the USFWS will determine the significance of potential impacts to federally protected species and will recommend methods to avoid or mitigate for impacts that may occur as a result of the proposed projects.

The FFWCC Threatened and Endangered Species Section reviews and issues permits that involve Florida's protected terrestrial animal species. The FFWCC Bureau of Protected Species Management reviews and issues permits that involve Florida's protected aquatic wildlife species. The FDACS Division of Plant Industry is responsible for providing protection to Florida's protected native plant species that are classified as endangered, threatened, or commercially exploited.

Wetlands

Legislation

Executive Order 11990, *Protection of Wetlands*, mandates that each federal agency take action to minimize the destruction, loss, or degradation of wetlands, and preserve and enhance their natural values. On the federal level, wetlands are regulated according to Section 404 of the Clean Water Act, which requires a permit for dredging and filling activities that take place in Waters of the United States, including wetlands.

The legal framework for the regulation of activities in wetlands by the State of Florida and by the State's Water Management Districts is provided, in part, by Chapter 373 of the Florida Statutes, *the Florida Water Resources Act of 1972*, specifically 373.414 which states that an activity regulated under this part will not be harmful to water resources; water quality standards will not be violated; and such activity in, on, or over surface waters or wetlands, is not contrary to the public interest. If such an activity significantly degrades or is within an Outstanding Florida Water, the applicant must provide reasonable assurance that the proposed activity will be clearly in the public interest.

Specifics concerning permit requirements are codified in Chapter 40, parts A through E, of the Florida Administrative Code.

Regulatory Agencies

In Eastern Florida, the COE, the FDEP, and the SJRWMD have jurisdiction over and regulate activities that alter the landscape and disrupt water flow to wetland areas and surface waters through the State ERP Program.

Floodplains

Legislation

Executive Order 11988, *Floodplain Management*, defines floodplains as lowland areas adjoining inland and coastal waters, especially those areas subject to one percent or greater chance of flooding in any given year.

Regulatory Agencies

The Federal Emergency Management Agency (FEMA) has produced Flood Insurance Rate Maps (FIRMs) for communities participating in the National Flood Insurance Program. The maps detail the 100-year and 500-year base flood elevations. The State of Florida administers and requires compensation for floodplain impacts through the ERP program. SJRWMD has jurisdiction over east Florida.

Coastal Zone Management Program

Legislation

The Coastal Zone Management Act (CZMA) aims to preserve, protect, develop, and where possible, restore and enhance the resources of the nation's coastal zone. The Florida Coastal Management Act of 1978 (Chapter 380, Part II, Florida Statutes) authorized the FDEP to develop a comprehensive state coastal management program based upon existing Florida Statutes and Rules.

Regulatory Agency

The FDEP is responsible for directing the implementation of the Florida Coastal Management Program (FCMP). The program is based on a cooperative network of nine agencies including the FDEP, the Florida Department of Community Affairs (DCA), FFWCC, Department of State (DOS), Governor's Office of Planning and Budgeting (OPB), Department of Transportation (DOT), Department of Health (DOH), and the Division of Forestry within the DACS. SJRWMD is also a cooperating member in the consistency review process for east Florida.

Farmland

Legislation

The Farmland Protection Policy Act of 1981 (FPPA) requires the evaluation of farmland conversion to non-agricultural areas. Prime farmland is land best suited for producing food, feed, forage, fiber, and oilseed crops. This land has the quality, growing season, and moisture supply necessary to produce sustained crop yields with minimal energy and economic input.

Regulatory Agencies

The National Resources Conservation Service (NRCS) has jurisdiction and should be consulted if farmland is to be converted to non-agricultural use by a federally funded project. The consultation determines whether the farmland is classified as "prime" or "unique." If it is, the Farmland Protection Act requires rating the farmland conversion impacts based upon the length of time farmed, amount of farmland remaining in the area, level of local farm support services, and the level of urban land in the area.

CONCLUSION

While concise, the above descriptions do not provide an exhaustive account of every specific detail and facet of Merritt Island Airport. The purpose of the inventory chapter is to provide general facility data that will be used to provide a basis for a more detailed analysis through the remainder of this report.