Chapter 1: Description of Existing Conditions

1.1 Introduction

An airport master plan provides analyses and recommendations related to the long-term development of an airport. The plans are generally prepared according to the Federal Aviation Administration (FAA) and Florida Department of Transportation (FDOT) guidelines and requirements to fulfill objectives such as the following:

- Define Airport goals and objectives
- Identify concerns and opportunities
- Consider future development needs
- Provide a management tool
- Establish eligibility for federal and state funding for airport improvements

Master plans also typically establish the framework for the continuing planning and implementation processes to ensure that the airport service area's needs are identified and fulfilled.

The preparation of an airport master plan usually involves a multi-task work program most often completed with the assistance of a consultant or consultant team. Components of the work program often include the following:

- An inventory of airport facilities and aviation activities, a review of the characteristics of the area served by the airport, and identification of issues, opportunities, and concerns related to the airport.
- Forecasts of demand including numbers of airplanes that will be based at the airport and the number of take-offs and landings (operations) expected.
- An assessment of the ability of the airport to accommodate forecast activity (capacity analysis) and a determination of the facilities required to do so.
- Identification and evaluation of alternatives for future airport development leading to a recommended plan.
- An environmental review to identify notable impacts that could be associated with future airport development.
- Preparation of planning drawings including the Airport Layout Plan, which depicts existing and proposed airport facilities.
- Development of a financial plan, including a capital improvements plan, and the identification of possible sources of funding for the improvements.

Public participation is an integral component of the airport master planning process. In the preparation of this study, briefings have been provided at Airport Advisory Board meetings and open house public information meetings have been held. These meetings provided opportunities to secure public input and to exchange information.

This chapter summarizes the data and information gathered in preparing this Master Plan for Pompano Beach Air Park. Inventory activities included development of a general description of the airport and the area it serves, gathering data concerning other airports in the area, reviewing area socio-economic characteristics, and identifying airport vicinity land use.

Information was gathered in a variety of ways. These included review of published data and reports, such as the 1997 Pompano Beach Air Park Master Plan Update, the Florida Aviation System Plan (FASP), on-site inspections, and telephone and other contacts with local, regional, state, and federal agencies. To avoid repetition, only highlights are provided, subsequent chapters present more detailed information as needed.

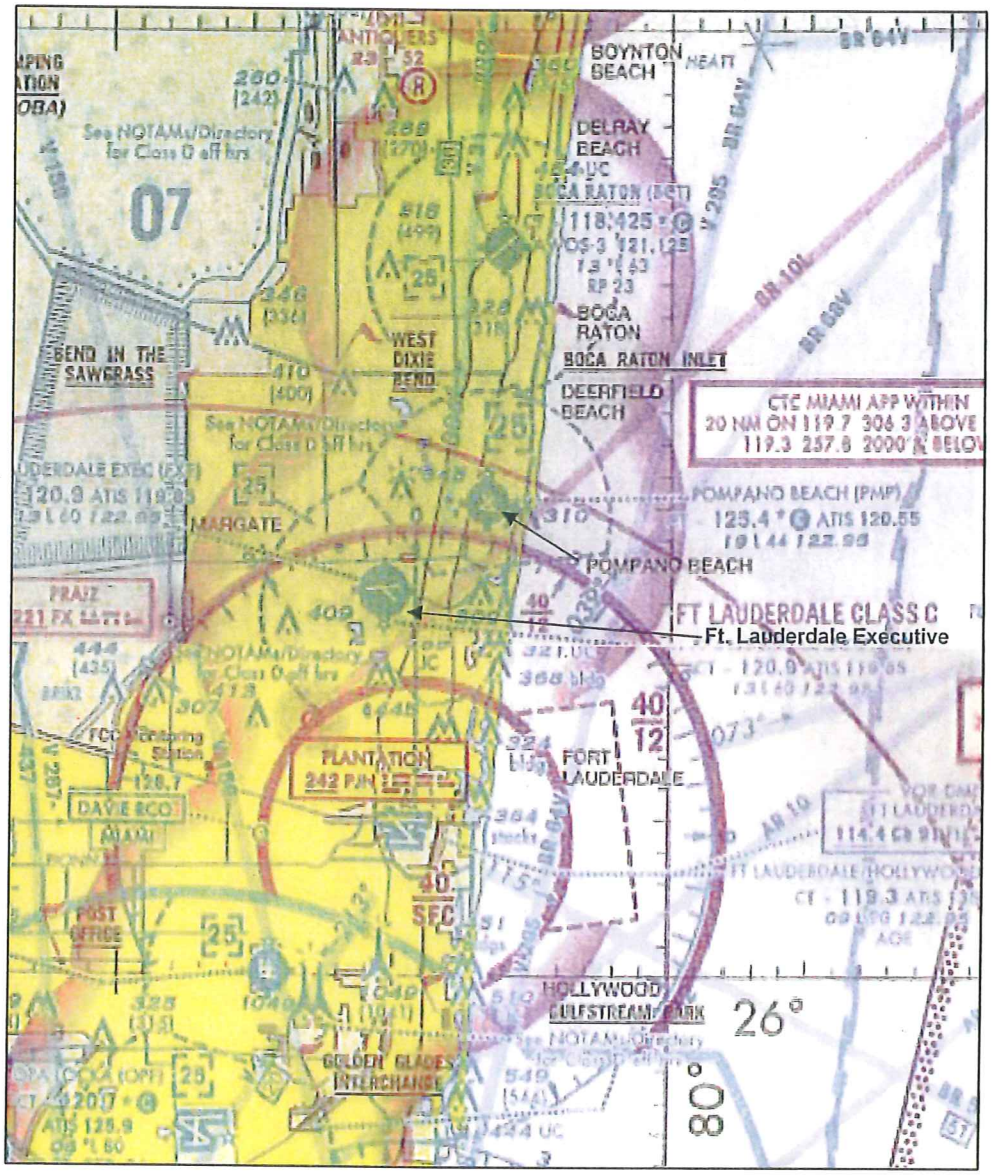
1.2 Airport Ownership and Location

Pompano Beach Air Park (PMP) is a public use airport owned and operated by the City of Pompano Beach, Florida. This facility is under the overall direction of the Airport Manager who is an employee of the City. The role of the Pompano Beach Air Park as defined in the FASP is to serve as the host general aviation airport for corporate, recreational, and training flights. Flight training accounts for about 60% of the total operations at PMP. The airport provides a substantial economic impact to the local area by providing jobs and purchasing local goods and services. The community also benefits from the recreational lands that the airport has contributed over the years.

PMP was constructed during World War II as a satellite training field serving the Naval Air Station located at what is now Fort Lauderdale-Hollywood International Airport. On August 29, 1947, the City of Pompano Beach obtained the Airport under the Surplus Property Act of 1944. Under the provisions of that law, property (such as the training field) conveyed to local governments must be used for aviation purposes or ownership reverts back to the FAA. The airport was subsequently renamed Pompano Beach Air Park.

Additional parcels surrounding the Air Park, including land along Copans Road and the Florida East Coast Railway tracks to the west of the Air Park, were transferred to the City on June 24, 1948, bringing the total acreage at the Air Park to 1,035 acres. On August 5, 1958, 10 acres of Air Park property were released to Broward County School Board for the construction of Pompano Beach Elementary School. The County received 9 more acres on September 18, 1967. On March 8, 1958, the City sold 60 acres, located in the northeast corner of the Air Park Property, for development of the Pompano Square Mall. The final transfer of Air Park property occurred in 1981 when 10 acres in the southwestern section of the Air Park Property were purchased by the Pompano Elks Club. These transfers account for the current total of 946 acres the Air Park comprises.

Figure 1.1: Airport Location Map



Source: Miami Sectional Aeronautical Chart, 80th Edition, Effec. 2/15/2007

1.3 Airport Facilities

1.3.1 Runways and Taxiways

PMP has three paved (asphalt) runways. The primary runway (15-33) for wind conditions is 4,418 long and 150' wide. Crosswind coverage is provided by Runway 6-24, which is 4,000' x 150'. The third runway, 10-28, is 3,500' x 150'. Table 1.1 summarizes runway characteristics. Figure 1.2

provides a generalized depiction of the existing airport layout, and Figure 1.3 identifies the elements of the existing taxiway system.

Table 1.1: Runway Data

Characteristic	Runway 6/24	Runway 10/28	Runway 15/33
Length (ft)	4,001	3,502	4,418
Width (ft)	150	100	150
Composition	Asphalt	Asphalt	Asphalt
Load Capacity (lbs.) Single Wheel	20,000	26,000	30,000
Runway Pavement Condition (estimated)	Fair	Fair	Fair
End Elevations (msl)	6 = 20.89 24 = 14.42	10 = 19.43 28 = 11.27 calc.	15 = 17.32 33 = 12.80
Lighting	MIRL	MIRL	MIRL ODALS
Landing Aids	PAPI (P2L) Both ends	PAPI (P2L) Both ends	PAPI (P2L) Both ends Localizer/DME 33 End (supports approach to 15)
Runway Marking	Visual Both ends	Visual Both ends	Visual Nonprecision RWY 15; Visual RWY 33

Runway data source – FAA Form 5010 *Elevation source – 2004 NAVAID installation survey*
MIRL – Medium Intensity Runway Lights *ODALS – Omnidirectional Approach Lighting System*

Airfield capacity is enhanced by parallel taxiways as shown in Figures 1.2 and 1.3. Using the latter for reference, Taxiway A is located on the west of the airfield and provides entrance taxiways for Runway ends 6 and 10. Taxiway B, which extends north-south, is an entry taxiway to Runway 15, connects with to the west with the blimp base, extends past approach end of Runway 10 and extends to the west end of Runway 6.

Figure 1.2: Existing Airport Layout

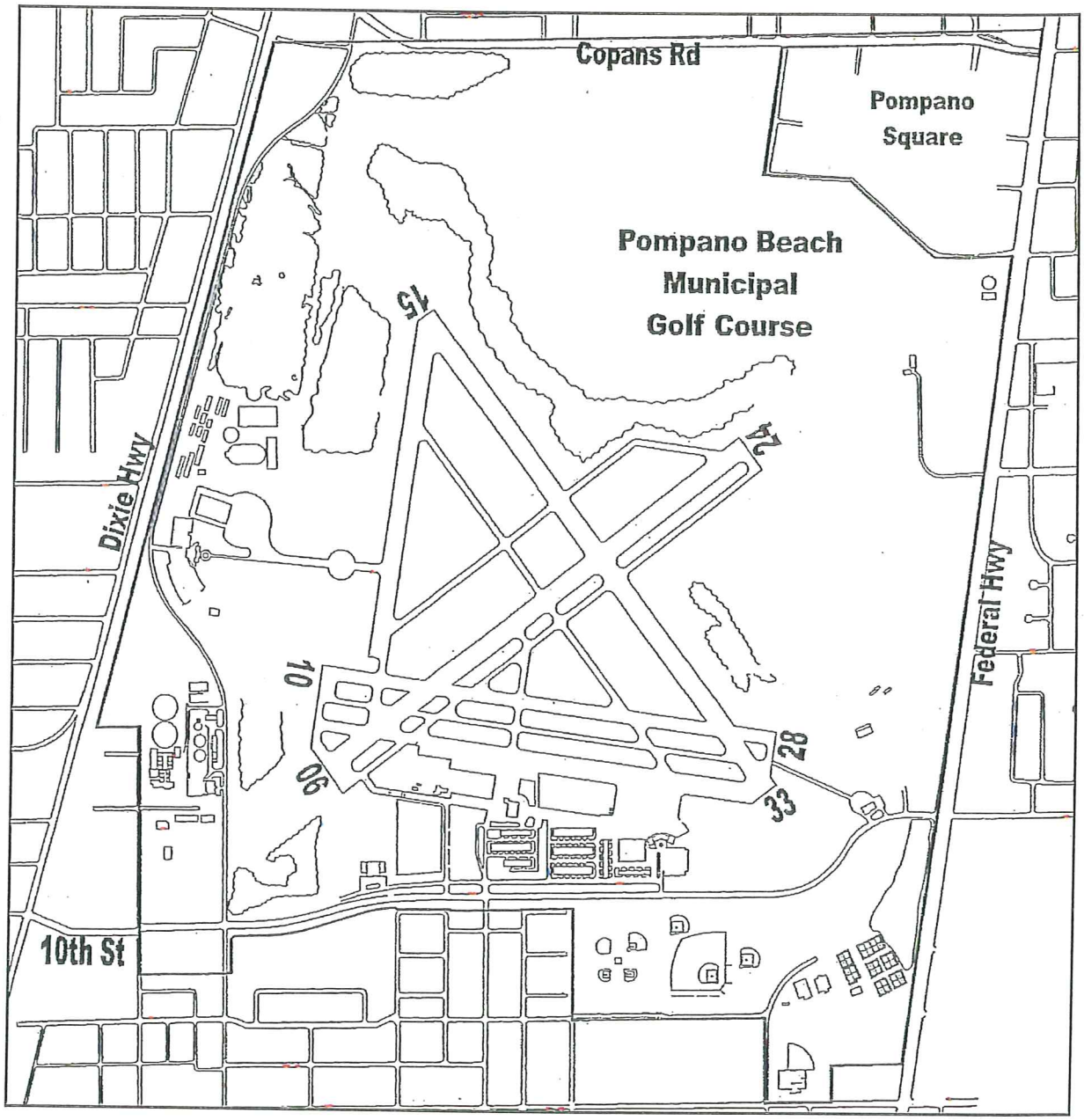
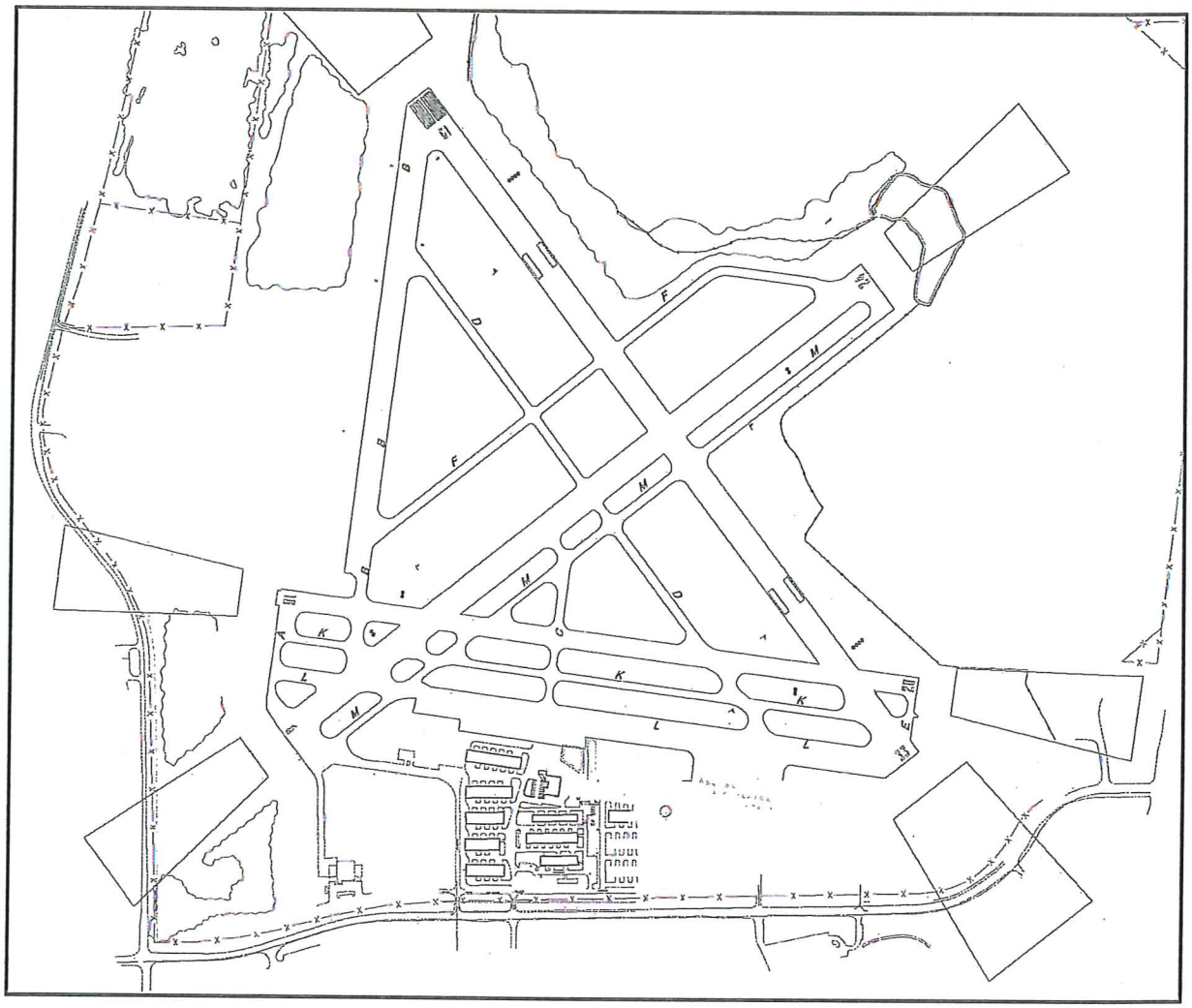


Figure 1.3: Existing Taxiway Layout



Taxiway C runs to the south from Taxiway M, extends through Runway 10-28 and Taxiway K and ends by connecting to Taxiway L. Taxiway D runs parallel and to the southwest of Runway 15-33. It begins at taxiway B, extends through Taxiways F, M, and K, crosses Runway 6-24 and ends by connecting to taxiway L.

Taxiway F is parallel to and northwest of Runway 6-24. It starts at Taxiway B and extends through Taxiway D and Runway 15-33, then bends to the southwest and becomes an entry taxiway to end of Runway 24. Taxiway F is a partial parallel taxiway north of Runway 6-24 and provides direct access to Runway End 24. Taxiway F extends north and provides entrance to Runway 15. Taxiway C is 2,100 feet long and 40 feet wide extending past T-hangers to access the north side of the field. Taxiway C intersects with Taxiway A, which extends to the west toward the approach end of Runway 13. Taxiway C also intersects with Taxiway B, which extends toward the approach end of Runway 22.

1.3.2 Airport and Airfield Lighting

PMP has a rotating light beacon. All runways are equipped with medium intensity runway lights (MIRLs). Runway ends 33, 24, and 10 have runway end identifier lights (REILs). All taxiways, with the exception of Taxiway F, are lighted.

1.3.3 Approach and Landing Aids

The lighting systems identified above facilitate identification of the airport's location, runways and taxiways. In addition, Pompano Beach Airpark has an Omnidirectional Approach Lighting System (ODALS) on Runway End 15, which is currently out of service indefinitely. Runway End 33 has a localizer (LOC) and distance measuring equipment (DME) that supports the Runway 15 LOC/DME instrument approach procedure. Runways 15 and 33 have four-light Precision Approach Path Indicators (PAPIs), while Runways 6, 24, and 10 have two-light PAPIs. Runway 28 is equipped with Visual Approach Slope Indicators (VASIs) of the two-light unit type (V2L). PMP also has a lighted wind indicator.

1.3.4 Weather Reporting Equipment

Pompano Beach Air Park has an automated surface observing system (ASOS). This system is equipped with sensors that detect significant changes in basic weather elements and reports hourly. ASOS transmits a special report when conditions exceed predetermined weather thresholds. ASOS reports the following weather elements:

- Sky conditions
- Visibility
- Present weather information (rain type and intensity, snow, freezing rain)
- Obstructions of vision (fog, haze)
- Pressure (sea level, altimeter setting)
- Ambient temperature, and dew point temperature
- Wind direction, speed, and character (squalls, gusts)
- Precipitation accumulation
- Selected significant remarks including – variable cloud heights, precipitation beginning/ending times, rapid pressure changes, pressure change tendency, wind shift, and peak wind.

1.4 Landside Facilities

Landside facilities include hangars, apron and ramp, and access and auto parking. These facilities are located on the south side of the airfield. In addition to aircraft storage, there are buildings dedicated to businesses in the aviation industry.

1.4.1 Apron, Ramp, and Aircraft Storage

Ramp/apron pavement is located north of the T-hangar facilities. A visual count from aerial photography of PMP indicates a total of approximately 120 spaces; however, many of these appear to lie within the Taxiway Object Free Area (TOFA) for Taxiway L. Most of these spaces are located on asphalt pavement with a small number (approximately 10) on concrete ramp that is in poor condition. The implications of these circumstances will be examined further in Chapters 3 and 4.

PMP has one T-hangar structure with one additional building under construction to replace units destroyed by a hurricane in 2006. The existing buildings provide 118 units with 10 more to be available following completion of the replacement building. All T-hangars are located on the south side of the airfield.

PMP has three (3) conventional hangars. One hangar is owned by Goodyear and has the capacity to store two (2) fully inflated Goodyear Blimps. This 45,000-square foot hangar is located on 32.5 acres that Goodyear leases from the City. Goodyear also has a 3,500-square foot operations/administration building on this parcel. Anthony Aviation owns two conventional hangars. The first, Building 108, is located just west of the FBO/general aviation terminal and is used for aircraft storage and maintenance purposes; the second, identified as Building 114, is used by Anthony Aviation for equipment storage. The City also owns a former hangar building now leased by American Flyers for their flight training operations. That building has been remodeled for offices and related purposes and is not longer a hangar.

1.4.2 Air Traffic Control Tower

There is a FAA Contract Air Traffic Control Tower collocated with the administration/terminal building. This tower is 55 feet high with five (5) floors. The control room is on the top floor of the tower and FAA offices are on the first floor. The tower's operating hours are from 8 a.m. to 8 p.m. The tower is staffed by employees of Robinson Aviation, Inc.

1.4.3 Other Tenants

The City of Pompano Beach has a fire station located on airport property on the northeast side of 10th Street west of US 1. This station houses airport rescue equipment in addition to traditional fire equipment; however, this station is not an official Aircraft Rescue and Fire Fighting (ARFF) station. The FAA does not require PMP to provide fire fighting and rescue services because there are no operations by commercial service aircraft at the airport.

Other facilities on airport property include the following:

- 36-hole golf course and golf pro shop
- Driving range
- Bar and restaurant

- Municipal swimming pool
- Municipal basketball stadium
- Tennis facility
- Bike path and fitness trail
- Community park
- Pompano Beach Amphitheater
- Pompano Civic Center
- Water treatment plant

1.4.4 Access

Access to the Air Park is provided by four major highways and multiple city streets. Copans Road runs east and west and provides access on the north side of the facility. Atlantic Boulevard also runs east and west providing access from the south. Federal Highway (US 1) and Dixie Highway both run north and south providing access on the east and west sides, respectively. City streets providing direct routes to the facility from those four major highways are 10th Street and 5th Avenue. Fifth Avenue was constructed on airport property and is the primary north-south access to developed and undeveloped property. Interstate 95 is located 1.25 miles west of the Air Park and can be accessed via Copans Road or Atlantic Boulevard.

1.4.5 Parking

Vehicle parking is available in front of the administration building/terminal building/control tower and behind the FBO buildings. A total of 170 parking spaces are available for use at various locations but primarily in the FBO area and adjacent to the administration building/ATCT.

1.5 Fuel Storage and Distribution

Pompano Beach Airpark has an underground fuel farm located north of building 109 across the apron. This fuel farm contains two 15,000 gallon tanks, one for AVGAS and one for Jet A. Additional mobile storage is provided by the FBO's fuel trucks (2). The FBO has fuel for sale; a third fuel tank is located near the American Flyers operation. This tank holds fuel used by American Flyers and is not for sale.

1.6 Area Airports and Airspace

Pompano Beach Air Park is surrounded by multiple airports serving both commercial and general aviation. All airports within 30 Nautical Miles (NM) of PMP are listed below.

- PBI – Palm Beach International Airport (26.2 NM)
- LNA – Palm Beach County Park Airport (20.8 NM)
- BCT – Boca Raton Airport (7.9 NM)
- FXE – Ft. Lauderdale Executive Airport (4.4 NM)
- FLL – Ft. Lauderdale/Hollywood International Airport (10.7 NM)

- HWO – North Perry Airport (16.3 NM)
- OPF – Opa Locka Airport (22.3 NM)
- MIA – Miami International Airport (28.9 NM)
  (Source: AirNav.com)

The airspace around Pompano Beach Air Park is Class D. The Class D airspace at Pompano intersects with the Class D airspace at Ft. Lauderdale/Hollywood International Airport and the 30-nautical mile Mode C transponder requirement for Miami International Airport's Class B airspace. Weather minimums for VFR operations in Class D are:

Airspace	Flight Visibility	Distance from Clouds
Class C	3 Statute Miles	500 feet below 1,000 feet above 2,000 feet horizontal
Class D	3 Statute Miles	500 feet below 1,000 feet above 2,000 feet horizontal

Operations within the Class D airspace are coordinated under Letter of Agreement (dated February 1, 1998) between the Pompano Tower and the Ft. Lauderdale Executive Tower. The provisions of this agreement primarily relate to the towers exchanging information:

- the primary runway in use
- coordination of IFR departures
- weather conditions

The text of this agreement is provided in Appendix A.

1.7 Instrument Approach Procedures

PMP has five published approach procedures applicable to Approach Categories A and B aircraft. (Approach Category A includes aircraft with approach speeds of 0-90 knots; Approach Category B aircraft have approach speeds of 91-120 knots.) These are as follow:

- LOC RWY 15
- RNAV(GPS) RWY 15
- RNAV (GPS) RWY 24
- RNAV (GPS) RWY 33
- RNAV (GPS) RWY 6

All of these approach procedures provide straight-in capabilities. They also support circling approaches to the airport, considered as visual approaches. Best available minimums provided by the procedures are the 288-foot ceiling and one mile visibility for RAV (GPS) 33.

1.8 Airport Activity

Two components of airport activity, based aircraft and operations, are examined in this chapter. (An operation is a take-off or a landing. Touch-and-go activity and stop-and-go activity that simulate take-offs and landings constitute two operations for each touch-and-go or stop-and-go cycle.)

1.8.1 Based Aircraft

Based aircraft are those which are located and stored on the airport. The number and types of based aircraft are significant indicators of airport activity as well as factors in determining the need for facilities such as hangars and airport apron needed for tie-downs. In the absence of more definitive data, this study relied upon the information from the FAA's Form 5010 Airport Master Record. The current 5010 identifies the following based aircraft at PMP:

• Single-engine	125
• Multi-engine	12
• Jet	4
• Rotor	17
• Blimp	1*
Total	**159**

* The Goodyear blimp is based at PMP but was not listed on the Form 5010 data.

1.8.2 Aircraft Operations

As noted previously, PMP has an air traffic control tower that operates from 8:00 a.m. to 8:00 p.m. During those hours, tower personnel note the number of take-offs and landings (operations) performed at the airport. Table 1.2 presents historical information available from FAA databases.

Review of data show wide fluctuations in the number of operations reported. The most recent data (2006 and partial for 2007) indicate a bottoming of the number of operations in 2006 and a recovery underway in 2007. This information will be discussed further in Chapter 2 as will the implications of the limited hours of tower operations.

1.9 Socioeconomic Data and Projections

Socioeconomic characteristics often provide insights concerning an area's past and future growth. These characteristics also usually have a positive relationship to aviation activity and are often useful in preparing estimates of future airport activity.

Table 1.2: Historical Aircraft Operations Data								
Year	Total Annual Operations	Itinerant Operations				Local Operations		
		Air Taxi	General Aviation	Military	Subtotal	General Aviation	Military	Subtotal
1997	122661	0	44723	8	44731	77930	0	77930
1998	172756	21	49721	164	49906	122435	415	122850
1999	184191	19	56807	5	56831	127360	0	127360
2000	182780	52	56610	11	56673	126107	0	126107
2001	186415	142	56998	80	57220	129195	0	129195
2002	213325	118	66371	18	66507	146816	2	146818
2003	177965	121	55620	7	55748	122195	22	122217
2004	155341	78	52077	19	52174	103167	0	103167
2005	130784	50	42636	16	42702	88080	2	88082
2006	101686	167	37808	9	37984	63696	6	63702
2007 (to August)	87815	86	28151	0	28237	59574	4	59578

Source: FAA Air Traffic Activity Database System (ATADS).

1.9.1 Population

The U.S. Census Bureau data for the City of Pompano Beach indicate an estimated base population of 100,205 in April 2000. The most recent estimate of population (as of September 2007) shows a population of 104,402 persons as of July 1, 2006. (Source: U.S. Census Bureau website) This represents an increase of 4.19 percent from the 2000-2005.

Census Bureau data show Broward County's population in 2000 was 1,623,018. The Bureau's estimate for 2006 population was 1,787,636. This represents an increase of 10.14 percent while Florida's population grew to 15,982,378, a change of 23.5 percent from 1990. (Note: Population data from the Planning Department indicated that in 2000 the City of Pompano Beach was the 5th most populous municipality in Broward County and the 17th largest municipality by population in the State of Florida.)

Population projections from the Bureau of Economic and Business Research (BEBR) anticipate continued growth in Broward County's population to levels within a range of 1,907,400 to 2,861,000 by 2030.

1.9.2 Income

Income estimates were obtained from the U.S. Census Bureau. These data indicate the following per capita income levels in 1999:

- U.S. – $21,587
- City of Pompano – $23,938

The U.S. Census Bureau estimated a national per capita income of $25,267 in 2006 and a per capita income of $24,346 for Pompano Beach. The data for Pompano Beach indicate an increase of 1.7 percent for the period 1999 – 2006 versus a national growth of more than 17 percent.

1.10 Area Land Use Planning and Management

Land in the airport vicinity exhibits a variety of uses. North of the airport (across Copans Road) low and medium density residential uses prevail. To the west, south and east, lands are used low and medium-low residential and commercial. Recreation and open space (golf course) and commercial land uses create a buffer for the airport.

The City of Pompano conducts comprehensive planning and has adopted and administers a zoning program through its Zoning Department. The immediate airport property is zoned Transportation. The golf courses to the northeast are zoned Parks and Recreation, and areas to the south include Residential and Community Facilities zoning.

The City of Pompano Future Land Use Map shown in Figure 1.3 indicates the following proposed land uses in the areas adjacent to the PMP:

- To the north and northwest, Low and Medium Density Residential, Recreational & Open Space, and Industrial.
- To the west, Low Density Residential and Commercial.
- To the south, Low and Medium Density Residential and Commercial.
- To the East, Recreation & Open Space (Golf Course on-airport Property), Commercial, and Low and Medium Density Residential.

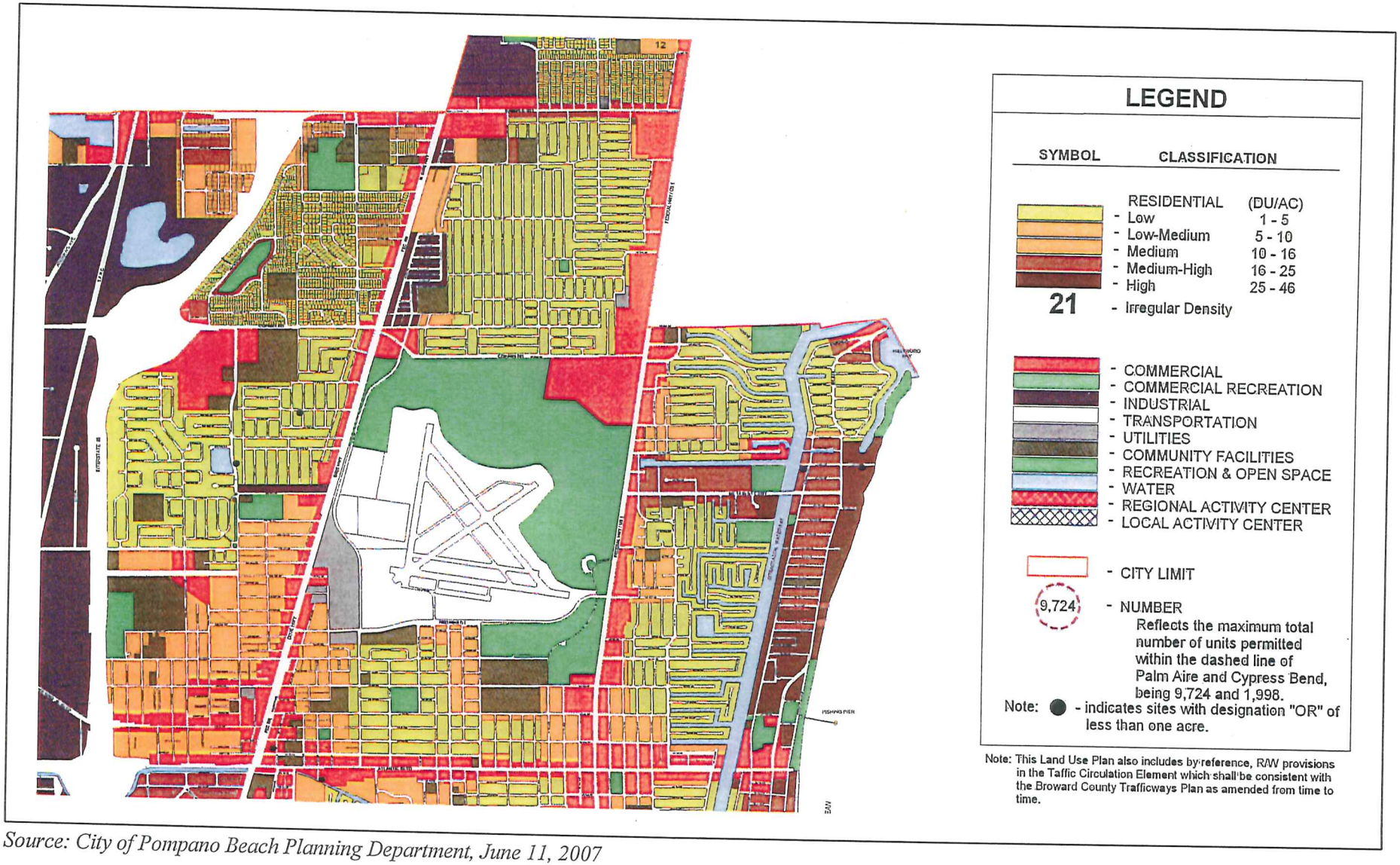
1.11 Current Noise Abatement Policies and Procedures

In the interest of promoting airport/community compatibility, PMP has implemented Noise Abatement "Guidelines" and Voluntary Limitations. This voluntary program recommends that pilots operating at Pompano Beach Air Park familiarize themselves with the National Business Aircraft Association (NBAA) Noise Abatement Procedures. Pilots are asked to comply with the following operational procedures:

- *It shall be the responsibility of all pilots operating aircraft at the Air Park, to familiarize themselves with the National Business Aircraft Association (NBA) Noise Abatement Operating Procedures.*

- *The pilots of all aircraft making local flights or practice entries into the appropriate traffic patterns shall maintain standard or assigned traffic altitudes at all times, consistent with safety and good airmanship and shall refrain from unnecessary maneuvers at low attitudes over or near noise sensitive residential areas adjacent to that airport.*

Figure 1.3: Airport Area Future Land Use Map



Source: City of Pompano Beach Planning Department, June 11, 2007

- *Consistent with the aircraft performance data, all take offs, including Touch & Go's will be made utilizing the best rate of climb. Initial turn to cross wind leg should be executed at 500' AGL, unless otherwise directed by Air Traffic Control.*

- *On all runway departures except Runway 6 pilots reaching the initial climb altitude in #3 above should make a left turn to cross wind heading and climb to traffic pattern altitude, unless otherwise directed by Air Traffic Control.*

- *Unless otherwise directed by Air Traffic Control. Departures on Runway 6 will climb straight out to 500' at best rate of climb before turning cross wind. Attempt to accomplish this by Federal Highway.*

- *No simulated engine out procedures in training operations during departure phase of flight.*

- *No intersection take offs permitted. Use the full length of the runway so as to gain as much altitude as possible over the airport.*

- *When performing Touch & Go operation, plan your touch down in the first 1000' of runway. If you touch down beyond this location, execute a full stop landing and taxi back in accordance with Air Traffic Control instructions.*

- *When executing an approach to landing on a runway with a PAPI, aircraft should remain at or above the PAPI guide approach angle until assured of safe landing.*

- *Pompano Air Park uses a standard left hand pattern for all airport runways unless Helicopter traffic pattern altitude is 500 msl. All pattern work shall be conducted using designated training routes over Air Park property. Ingress/Egress routes will be assigned by Air Traffic Control. It is strongly recommend that no helicopter activity be conducted South of 10th Street while in Airport flight training patterns.*

- *Aircraft with a gross weight of more than 30,000 pounds are prohibited on Runway 15/33. Aircraft with a gross weight of more than 12,500 pounds are prohibited on Runways 10/28 and 6/24.*

1.12 Summary

Preceding sections provided an introduction and overview of Pompano Beach Air Park and the area it serves. Subsequent chapters will use and expand the information presented here as necessary in considering specific aspects and issues of airport development. Additional topics (e.g., environmental data, etc.) will be introduced as appropriate to analyses presented later in this report.