



CHAPTER 1

INTRODUCTION

INTRODUCTION AND PROJECT OVERVIEW

A Master Plan provides an effective written and graphical representation of the ultimate development of the airport and associated land uses adjacent to the airport, while establishing a schedule of priorities and phasing for the various proposed improvements. Realistic master planning is a continuing and evolutionary process which marries project justification and available funding. Several adjustments are likely to occur to meet the changing industry before facilities are designed, approved, and built to completion.

The Merritt Island (COI) Airport Master Plan Update was designed to provide the Titusville-Cocoa Airport Authority (TICO Authority), owner and operator COI, with long-term guidance, relating to on-going development needs, project phasing, financial requirements, and viability of the airport over the twenty-year planning period. Development of this master plan update was based upon the master plan guidelines and criteria established by the Federal Aviation Administration (FAA) and Florida Department of Transportation (FDOT). Government assistance related to proposed development is provided in the form of financial grants to the airport sponsor. The grants are provided by the FAA and by the FDOT budgetary processes via Joint Participation Agreements (JPA). As such, the master plan update provides management both a physical and financial plan to guide local decisions relating to airport facilities and their potential improvement.

General Guidelines

The goal of the master plan update is to define current and future aviation demand at COI, the means and alternatives for addressing this demand, the role of the airport in the local, regional and national aviation system, and the need for and financial feasibility of new infrastructure and airport facilities. This project was funded from FAA and FDOT grants as well as TICO Authority project funds.

The airport's master plan serves a variety of functions including: projecting future aviation activity and development, providing airport management with a financial planning tool, and identifying and guiding on-airport and adjacent land use. The primary objective of the master plan update is to create a 20-year development program that will maintain a safe, efficient, economical, and environmentally acceptable airport facility for the TICO Authority, Merritt Island, and Brevard County. By achieving this objective, the document should provide guidance to satisfy general aviation demand in a financially feasible and responsible manner. The overall study approach will consider alternative airport development plans necessary to provide a "balanced" airport system.



Prior Planning Documentation

A major goal in the master planning process is the need to update information and plans at strategic intervals with recommended development concepts. This updating is necessary since prior airport projects may have changed due to evolving conditions or policies in the political, social, and economic environment. The demand for scheduled services, GA services, or other aviation services may fluidly adjust in response to changes in the environment, and/or role of the airport.

Key Issues

Since the last master plan update in 1995, several physical and operational adjustments have occurred. Some of these changes include: community growth and increased surface congestion, expansion of residential and commercial development adjacent to COI, the introduction of new technology and aircraft, as well as the impact of terrorism. Thus, the TICO Authority, in conjunction with FAA and FDOT, have identified key issues specific to Merritt Island Airport that need to be addressed in this master plan update. These issues include, but are not limited to, the following:

- Evaluate the airfield development options that address the primary runway length requirements, runway safety area standards and future airfield capacity;
- Evaluate long-term development options and provide infrastructure improvements to accommodate safety, security and aircraft demand;
- Maximize use of available property and airside access to general aviation facilities;
- Evaluate and recommend ground access improvements, if needed, to existing and future airport development areas;
- Assess the existing condition of the seawall forming the airport boundary, and potential environmental and operational impacts;
- Provide for local community input throughout the planning process; and
- Focus on existing and alternative funding sources for airport infrastructure development.

The preceding list is not intended to be an exhaustive delineation of issues but it does present an overview of the key considerations that were included in this Master Plan Update. By addressing these and other issues, this Master Plan developed an action plan to address current and future aviation demand at COI and to improve the quality of life in the surrounding community.

Goals and Objectives

The primary goal of this study is to provide the TICO Authority and airport management with guidelines related to future operations and improvements at the Merritt Island



Airport. In support of this goal, the following objectives were identified for further consideration:

- Identify airside, landside, and airspace improvements, and recommend options that optimize the economic benefits of the airport to the community.
- Enhance the safety, ease, and operational capacity of the airport's landside and airside facilities.
- Identify short-term improvements and optimize short-term funding opportunities.
- Establish an implementation schedule for short, intermediate, and long-term improvements, and ensure that they are financially feasible.
- Ensure that short-term actions and recommendations are consistent with and do not preclude long-range planning options.
- Incorporate the interests of and work closely with the public and governmental entities during the planning process.
- Remain sensitive to the overall environmental characteristics and issues in areas surrounding the airport.
- Coordinate with other related planning studies developed by the airport, government bodies, or community groups.

In addition, this document provides the guidance to satisfy the aviation demand in a financially feasible and responsible manner, while at the same addressing the community issues and formulating a realistic development program that will satisfy the airport's needs.

Regulatory Guidelines

This Master Plan was prepared in accordance with Federal Aviation Administration (FAA) Advisory Circulars **AC 150/5370-6B**, *Airport Master Plans*, and the most recent version of **AC 150-5300-13**, *Airport Design*, in conjunction with the **FDOT's Guidebook for Airport Master Planning**, **FDOT Procedure No. 725-040-040**, *Funding Airport Projects*, and other related standards. Furthermore, current guidance will be incorporated from the FAA Airports District Office (Orlando), FDOT Aviation Office (Local and Central Offices), the TICo Authority, and other local government agencies. City, county, regional, state and national planning efforts were considered in the development of the Master Plan Update in an effort to provide management and related organizations with a program which includes all related planning and development through the twenty year planning period.

In addition, in order to assist the TICo Authority in evaluating environmental factors that may impact future development at COI, 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 **Chapter 2, *Inventory of Existing Conditions***.

Master Plan Process

This Airport Master Plan provides a step-by-step outline of the development actions required to maintain the airfield facilities. This process is defined by the FAA but allows the planning process to be responsive to airport and community specific needs and issues. To accomplish the objectives previously identified, the study team completed the following tasks:

- Conducted an inventory of the existing documents related to COI, the physical facilities, the demographics of the airport service area, and the airport environment.
- Collected historical operational data, conducted tenant interviews, and forecasted aviation activity through the year 2027.
- Evaluated and compared the airfield and landside capacity based upon expected aviation activity.
- Determined the airfield and landside facilities required to meet the forecast demand.
- Developed and evaluated alternative methods to meet the facility requirements.
- Created a concise Airport Layout Plan (ALP) drawing set reflecting the proposed improvements through the year 2027.
- Compiled a financially feasible schedule of the proposed improvements including cost estimates and phasing.

Overall, the Master Plan should provide the sponsor with a comprehensive overview of the airport's needs over the next twenty years, including issues related to the timing of proposed development, costs for this development, methods of financing, management options, and a clear plan of action. The product of this process includes a financially feasible Capital Improvement Program for future development at COI. Also, a financial analysis leading to the development of a Financial Plan was conducted by LPA with COI staff coordination. Implementation of the study recommendations will begin following FAA and FDOT review of the ALP.

The Master Plan is a written articulation and graphical representation of the ultimate conceptual development of the airport over the course of the planning period. Though many changes are likely to take place before facilities are designed, approved, and

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constructed, an approved Airport Layout Plan is essential for an airport to qualify for and receive federal and/or state assistance, and will prove as an invaluable guide for management decisions. The steps that will be followed during the development of the Airport Master Plan are illustrated in **Figure 1-1**, *Steps in the Master Planning Process*.

KEY PARTICIPANTS AND PUBLIC INVOLVEMENT

As part of the master plan process, key participants associated with development at COI were asked to participate, including airport staff, representatives from the on-airport Fixed Base Operator (FBO), flight school, charter companies, user group representatives and the Brevard County Planning department. Public involvement was also obtained through meetings with airport user groups at key points throughout the planning process.

Technical Advisory Committee

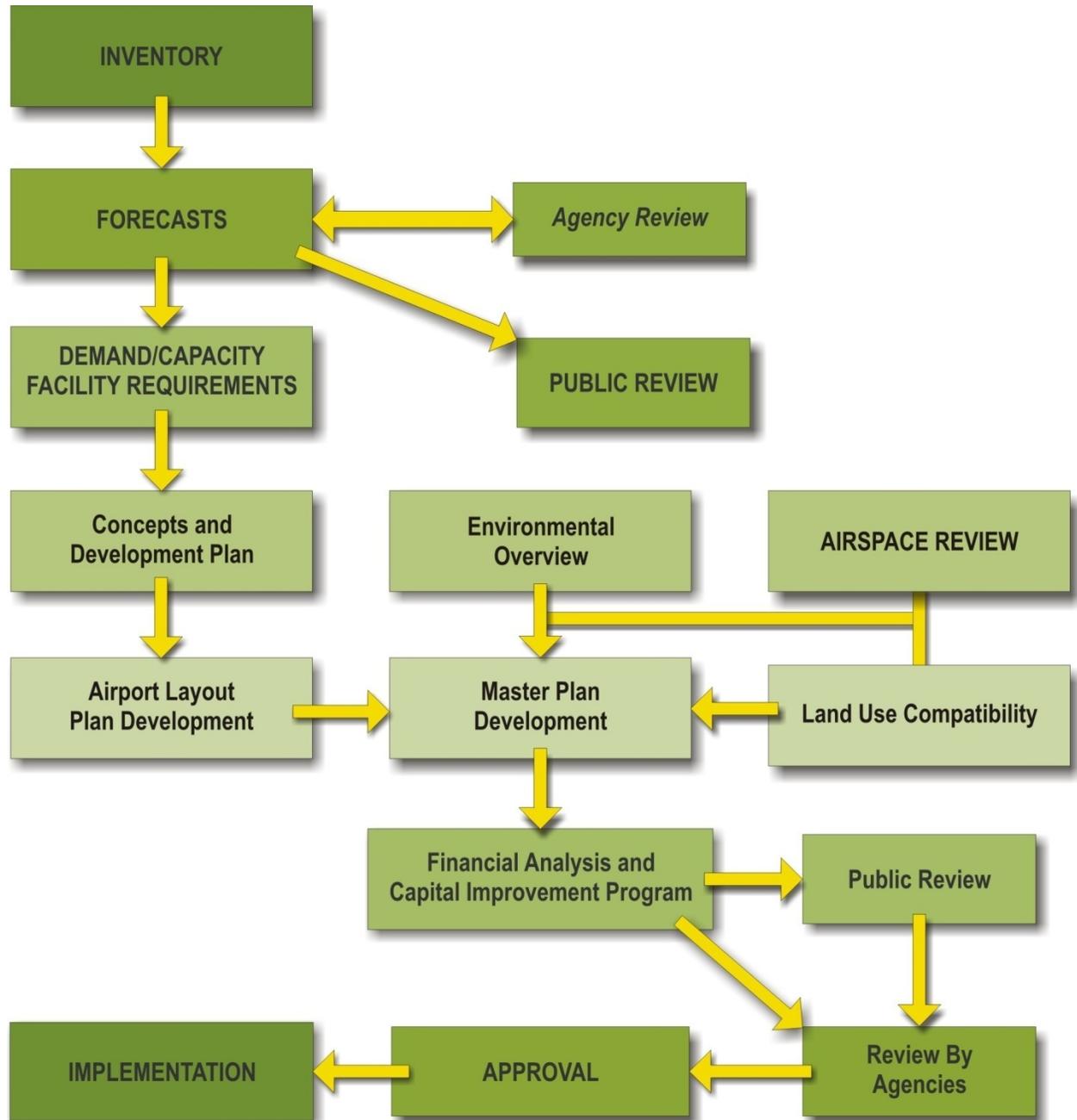
To meet the ongoing needs and demands of the airport users, a Technical Advisory Committee (TAC) was formed. The Merritt Island Master Plan project includes technical representatives from COI staff, airport tenants, as well as user group, FAA and FDOT representatives. The TAC was scheduled to meet at least three times throughout the planning process at key sections of the report in order to provide insight and input into the proposed development over the twenty year planning period. Their comments, as well as those provided from the general public, are included in **Appendix C**, *Key Participants and Public Involvement*, of this report.

Titusville-Cocoa Airport Authority Staff

Key members of the TICO Authority staff will provide input into the proposed development specifically in relation to the airport's role within the Titusville-Cocoa aviation system. Further, TICO Authority staff was critical in providing operating and financial data necessary to provide a plausible development plan for the airport over the twenty-year planning period. Input and information received from the Authority was included in **Appendix C**, *Key Participants and Public Involvement*, of this report.



Figure 1-1
Steps in the Master Plan Process



Sources: FAA Advisory Circular 150/5060-6B, Airport Master Plans, and The LPA Group Incorporated, 2008



Public Involvement Process

Throughout this planning process a variety of community and user groups were given an opportunity to provide input. Groups included airport tenants, users, local government officials, community leaders, and the general public. At the beginning of this study, a presentation providing an overview of the master plan process was presented to the local airport user group in order to obtain information with regard to potential issues and concerns. Three user group meetings were scheduled following the scheduled Technical Advisory Committee Meetings. Throughout this process coordination with airport staff occurred to ensure the study reflected the stated goals and objectives

SUMMARY

While the outlook for aviation over the next twenty years and what impact it will have on Merritt Island Airport remains to be seen, it was anticipated that aviation will continue to be a major component of the transportation industry nationally, in Florida, and within the Titusville-Cocoa Beach area. A key factor in COI's future success depends upon maintaining COI's role within the aviation system as well as identifying and implementing facilities needed to accommodate future demand. The purpose of the master plan process was to provide a forum for discussion and to establish a link between the community and the airport. Thus, this Airport Master Plan should serve as a guide to decision makers, users, and the general public relative to realistic and achievable development that is in line with both airport and community objectives.