ASC
Agenda Item No. 7(D)

MIAMI INTERNATIONAL AIRPORT

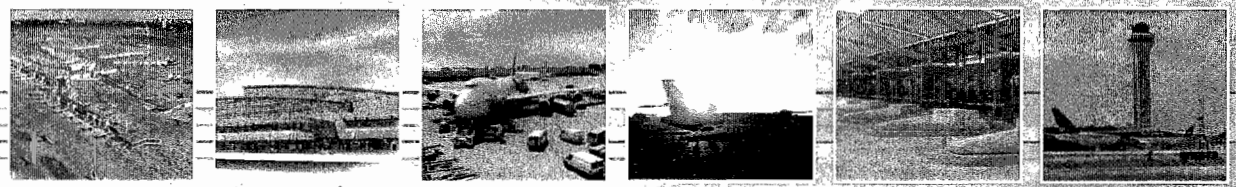
SMP 2015-2050

KENDALL-TAMIAMI EXECUTIVE AIRPORT • OPA-LOCKA EXECUTIVE AIRPORT • HOMESTEAD GENERAL AVIATION AIRPORT • DADE-COLLIER TRAINING AND TRANSITION AIRPORT

STRATEGIC AIRPORT MASTER PLANNING STUDY

FOR MIAMI-DADE COUNTY'S SYSTEM OF AIRPORTS

Prepared for the
Airport and Seaport Committee
April 16, 2009



MIAMI-DADE AVIATION DEPARTMENT

MIAMI-DADE COUNTY

MIA MIAMI INTERNATIONAL AIRPORT

Study Design Outline

STRATEGIC AIRPORT MASTER PLANNING STUDY

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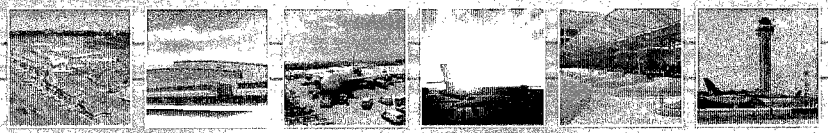
Anticipated Deliverables and Work Products

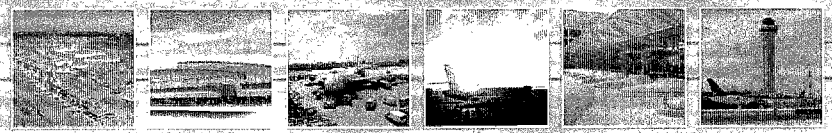


Background

The current Master Plan for MIA recommended several of the projects included in the ongoing CIP. The Master Plan was initiated in 1991 and adopted in 1994. It focused on airport needs for the 1990-2010 timeframe.

An Aviation System Plan Update was commissioned in 1996 but never adopted.

A Strategic Terminal Planning Study was requested by the BCC. The Study was initiated in 1995 and completed in 1997. It focused on airfield and terminal development strategies for the 2010-2040 timeframe.



Background

In late 2005, the need for a strategic airport master plan study, focusing primarily on MIA but also considering the complementing and reliever roles of the County's general aviations airport was identified. Pursuant to this identification of need, the following events transpired:

- May 2006 – Notice to Professional Consultants was issued through the Office of Capital Improvements (OCI)
- September 2006 – recommended Consultant was identified by OCI and the appointed Selection Committee
- March 2007 – contract with the recommended Consultant was approved by the BCC
- September 2007 – funding commitment from the FDOT for 50 percent of the study cost was secured
- July 2008 – first Joint Participation Agreement (JPA) from the FDOT for funding the initial study phase was received

Overview

The Strategic Master Plan (SMP) will focus on the following:

- A strategic plan for MIA and the County's general aviation system of airports, focusing on airport roles and positioning to capture existing or anticipated opportunities in the market
- Identify and assess strategies for responding to the needs of MIA from 2015 through 2050, while also providing guidance to address the immediate needs within the 2010-2014 time frame
- Positioning the County's airport system to serve:
  - Demand growth
  - Airline service and industry trends
  - Continued enhancements in customer service
- Balancing capital expenditures for asset expansion and modernization needs within the County's financial framework and performance targets

SMP 2015-2050

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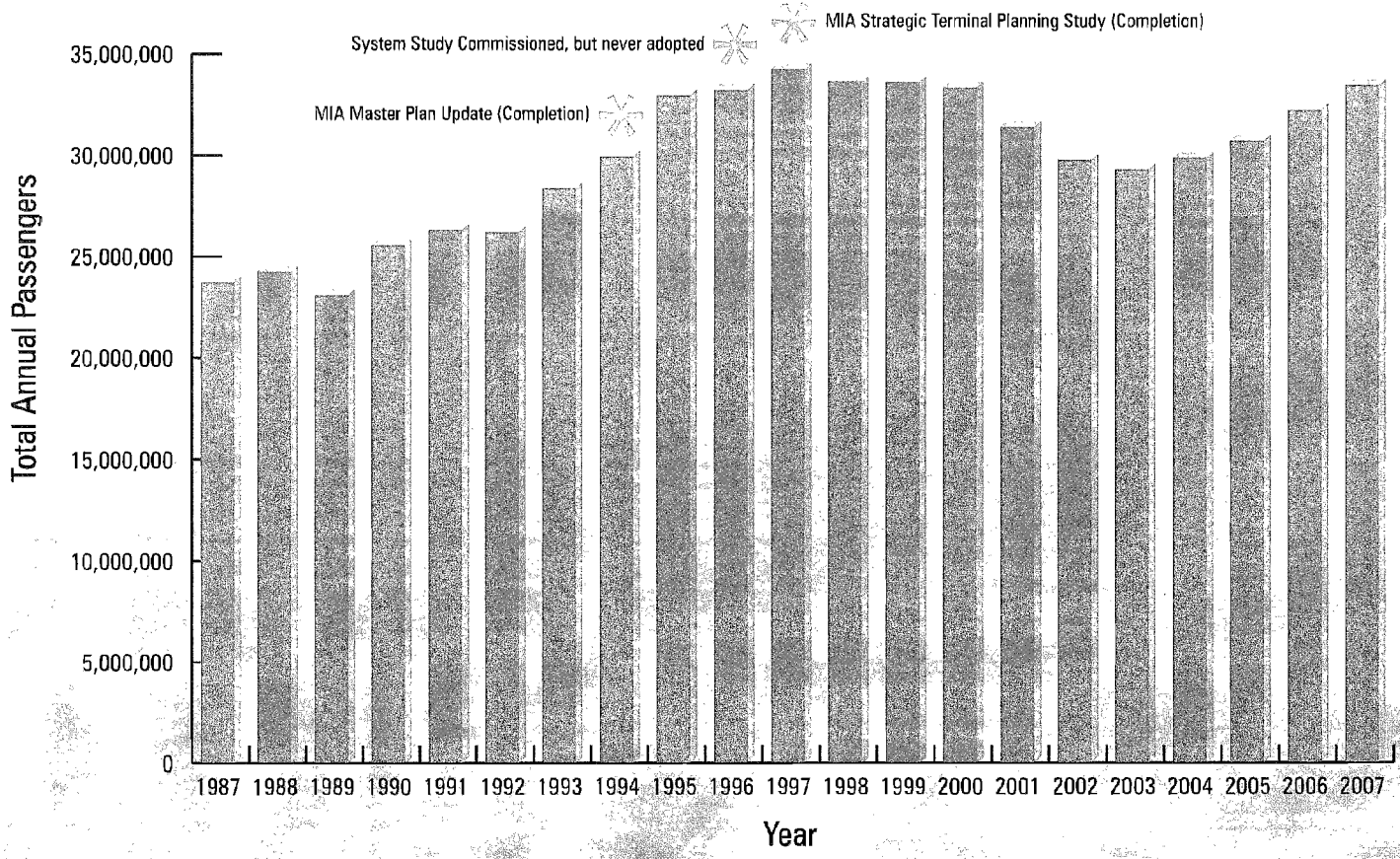
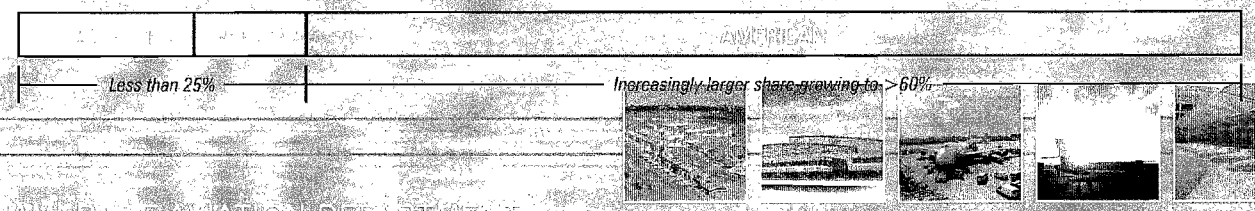
Why now?
Address Changes and Prepare for the Future

STRATEGIC AIRPORT MASTER PLANNING STUDY





Existing Passenger Forecasts

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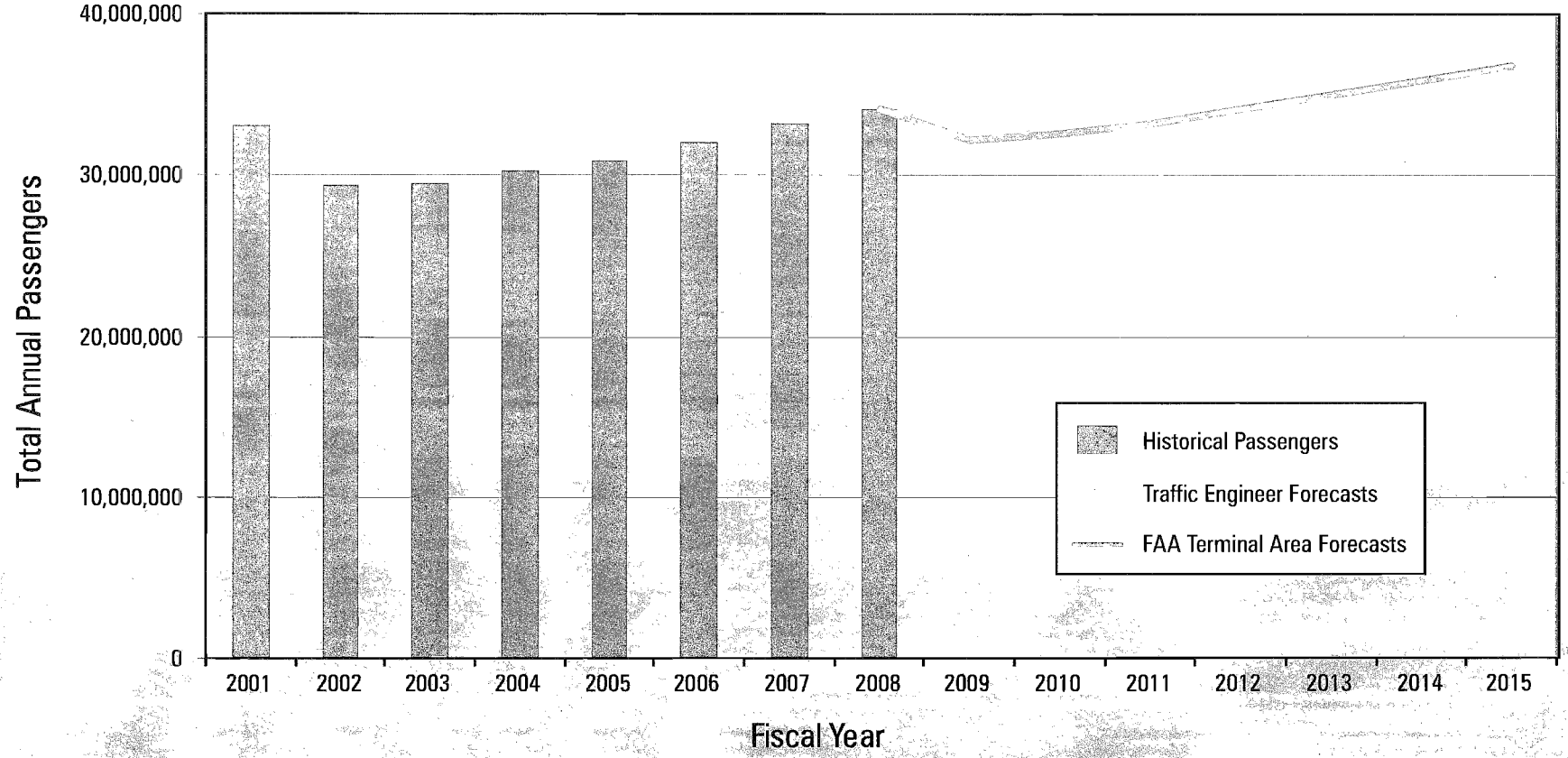


Sources: Landrum & Brown, November 2008; FAA Terminal Area Forecasts, December 2008

Desired Study Outcomes

The Strategic Master Plan (SMP) will produce the following:

- A Strategic Plan for MIA and the General Aviation Airports that considers various demand and growth scenarios through the 2050 timeframe. The Strategic Plan will outline airport roles and present concept plans for the airport system that represent long-range options for the optimization of each airport
- A Master Plan and ALP Update for MIA that outlines facility or operational needs and responsive solutions for the planning horizon (defined by the 2015-2035 timeframe) based on the activity forecasts and alternate demand scenarios considered
- Revisions (if necessary) to the recently approved Airport Layout Plans for the general aviation airports to reflect facility or operational improvements that may be needed within the planning horizon

Study Approach

Multi-phase approach aligning with FDOT funding disbursements:

PHASE 1A

Study Design

Stakeholder Surveys

Baseline Forecasting Analysis

PHASE 1B

Initiation of MIA Master Plan Update

Inventory/Data Collection

Identification of Immediate Needs

Market Assessment

Demand Scenario Analysis

PHASE 2

MIA Master Plan Update:

Capacity Assessment

Identification of Facility and Operational Needs

Non-airline revenue sources

Initiation of Long-Range Strategic Plan:

Initial Airport Asset Optimization Analysis

PHASE 3

MIA Master Plan Update:

Airport and System Improvement Alternatives

Environmental Screening; Preliminary Financial Feasibility Screening

Long-Range Strategic Plan:

Strategic Positioning and Demand Allocation Strategies

Long-Range Airport Concept Plans

PHASE 4

Implementation Planning

CIP Programming

Preliminary Plan of Finance

Airport Layout Plans Set

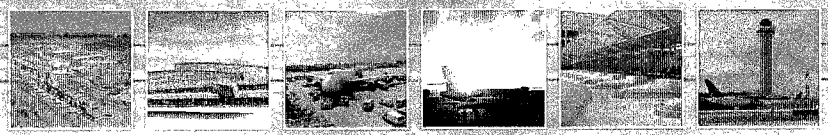
Forecasting Approach for MIA

Near-Term Analysis – Activity projections for 2009-2015

- Adopt the Traffic Engineer's Forecasts (dated November 2008) and FAA Terminal Area Forecasts (dated December 2008)
- Review global and local market conditions and airline factors affecting growth during this period
- Identify any observations noted during this review to MDAD and the Traffic Engineer Consultant for their consideration in subsequent updates to the Traffic Engineer's Forecasts

Long-Term Analysis – Activity projections for 2016-2050

- Scenario Analysis to define potential future growth in aviation activity under various conditions
- Conditions may include multi-year stimuli in growth caused by one or more local, national, or global factors; or single events that may trigger a one-year aggressive spike in demand
- Planning Charrette may be held with MDAD staff, internal, and external stakeholders to define the demand scenarios to be developed in Phase 1B

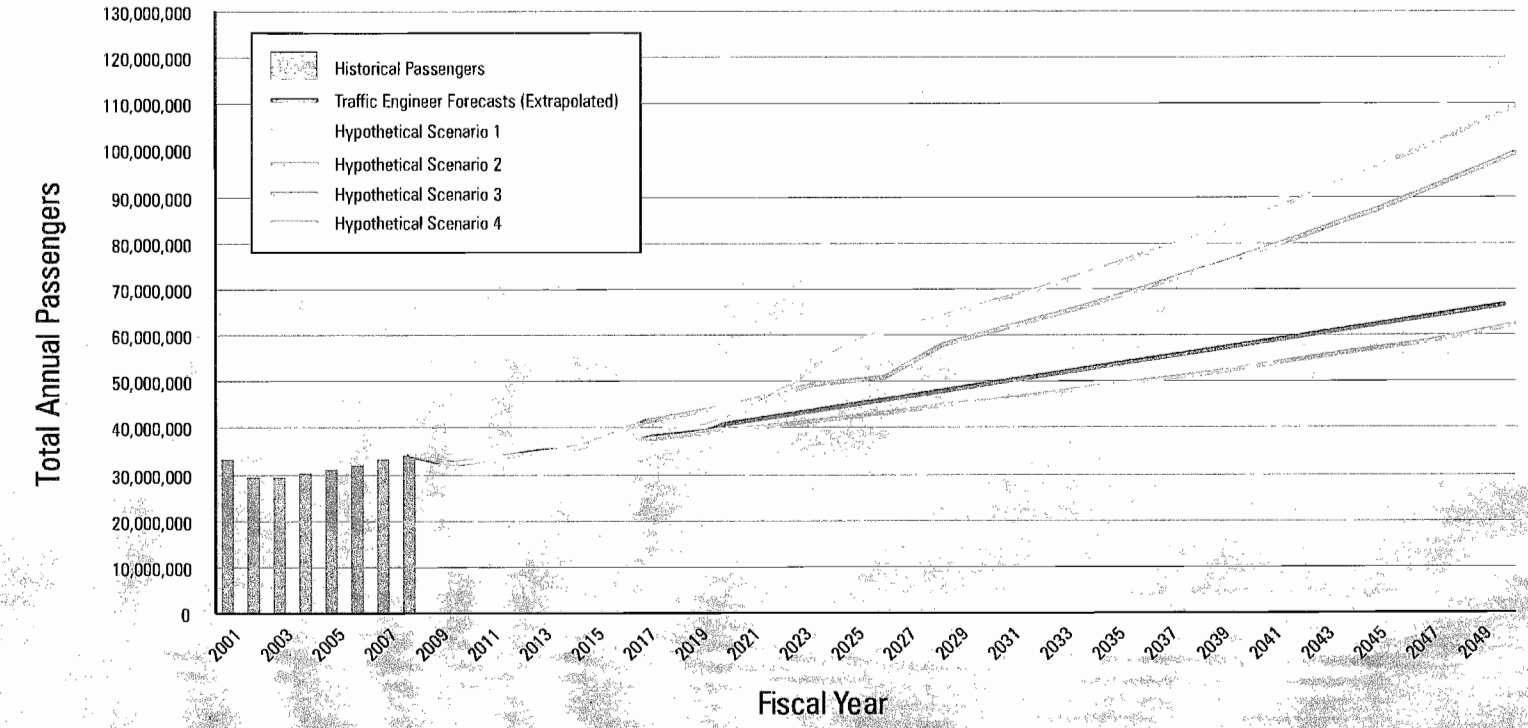


MIA Demand Scenarios

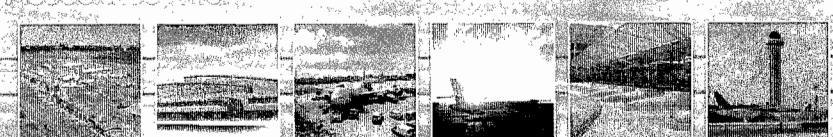
STRATEGIC AIRPORT MASTER PLANNING STUDY

Assumes growth through 2015 would be consistent with Traffic Engineer's projections

Considers alternate growth patterns and "what-if" demand scenarios beyond 2015



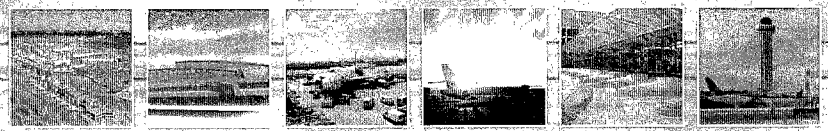
Sources: Jacobs Consultancy, November 2008; Ricondo & Associates, Inc.



Forecasting Approach for MIA

Global and Local Market Conditions/Airline Factors include, but are not limited to:

- General economic conditions
- Aviation security
- Airline service patterns
- Operating efficiencies and capacity constraints
- Cargo demand
- Factors facing or affecting the U.S. airline industry (includes consolidation and alliances)
- Oil and aviation fuel prices
- Capacity of the National Air Traffic Control System
- Capacity of other commercial service airports in the South Florida region
- Cuban and Latin America economic markets and air travel demand



Goals (preliminary)

Provide a structure and roadmap to guide long-term development and respond to air transportation needs in the region given a dynamic and uncertain industry and economic environment

Preserve and enhance MIA's role as an international gateway

Seek opportunities that continue to enhance customer service, as well as the efficient and timely movement of passengers and goods through the airport system

Support growth in aviation and non-aeronautical services and revenues within the airport system

Planning Parameters/Considerations

Key Drivers influencing the need to plan beyond the current CIP:

- Increasing / Changing Security Requirements (including but not limited to commercial passenger activity)
- Airline Operational Characteristics
  - Reduced Space Requirements
  - Self-service Driven
  - Reduced Staffing
- Decreasing Aircraft Seat Capacities / Increasing Load Factors
- Soaring Fuel Prices and its effects on airline service patterns and market demand
- Airline Consolidation
- Near term factors influencing AA operations globally and at MIA
- Group VI Compatibility
- Third Party/Public-Private Partnership Opportunities
- Revenue Generating Opportunities
- Corporate aviation and Very Light Jet (VLJ) Aircraft
- Aligning and balancing land use needs with land use compatibility
- Complying with emerging changes in FAA design or safety standards
- Preparing for the next capacity "bottleneck" in Miami-Dade's airport system
- Continued Operational Enhancements and customer service improvement supported by sound financial analysis and prudent business planning

Planning Parameters/Considerations

Passenger surveys will provide travel/airport user characteristics on the following:

Passenger Demographic Profiles that influence customer service, for instance:

- Type of passenger (leisure versus business) – which may affect the number and types of concessions throughout the terminals, parking habits/use of airport parking facilities, etc.
- Age group – which may influence thresholds of acceptable walking distance, etc.
- Language fluency – which could influence signage considerations, etc.

Airport Use and Traveling Characteristics, such as:

- Geographic distribution – to identify in which counties MIA's local/originating passengers reside
- Travel party size - including meeters, greeters, and well wishers
- Mode of travel to the airport – private car, rental car, shuttle service, taxi, other
- Flight check-in patterns and facility use – self-service kiosk, internet (remote), ticket counter, curbside
- Parking characteristics – valet, hourly or long-term parking; number of days vehicle remains parked at MIA
- Luggage volumes – checked-in versus carry-on bags
- Time of arrival to MIA in advance of flight departure time – influences arrival times to security checkpoint and use of concessions or other amenities

Stakeholders & Partners

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Internal

- Mayor
- County Manager
- Board of County Commissioners/ Airport and Seaport Committee
- MDAD Divisions
- MDAD Management Council

Airport Business Partners

- Airlines
- Commercial
- Ground Transportation Providers
- Cargo and Airline Maintenance Tenants
- Concessionaires
- Corporate/General Aviation Users
- Other Tenants

Customers

- Passengers
- Guests/Meeters/ Greeters/Well Wishers
- Cargo Shippers

Regulatory Agencies

- FAA
- FDOT
- DHS/TSA
- EPA/DERM
- U.S. Customs/Immigration/ Agriculture
- Department of Health and Human Services

Regional Partners

- Adjacent Municipalities/Local Governments
- Business Leaders/Chamber of Commerce
- Economic Development Groups/Agencies
- Agencies/Commissions
- Special Interest Groups/Pilars of the Community
- Community Councils

Stakeholder Engagement

Kickoff Meeting/Goals and Objectives Setting

- 2 Work Sessions: one with MDAD internal staff; one with airport tenants/airlines
- 2 Visioning Charrettes: one with members from MDAD's Regional Partners; one with members from the Management Council, Airport and Tourism Committee, and the County Commission
- 6 Individual Stakeholder Briefings: as requested by MDAD

Formulation of Study Advisory Committees

- Policy Advisory Committee
  - Role: to provide input on macro-level policy issues, near-term and long-term aviation goals for the County, and factors shaping or affecting airport roles
- Technical Committee
  - Role: to review and comment on technical and operational analyses and recommendations.

Anticipated Deliverables and Work Products

Interactive Management Tools

- GIS-based Airport Layout Plans Set
- GIS-based Facilities Inventory and Data Collection Files
- Activity Tracking tools integrating decision making triggers
- Menu of Development Concepts corresponding to Demand Scenarios

SMP 2015-2035

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Study Website

For additional information on the study please visit

http://www.miamidadeairports-smp.com