The Greater Orlando Aviation Authority

Of the Authority’s seven-member board, five are appointed to a four-year term by the Governor of the State of Florida and one each selected from the Orange County Commission and the Orlando City Council for a two-year term as long as they are in office.

The public body serves without compensation.

The Greater Orlando Aviation Authority was created by a State of Florida Legislative Act in 1975, to administer all aviation activities of the City of Orlando.
GOAA Strategic Goals

To be successful the Airport Master Plan must focus on GOAA’s strategic goals:

• Exceed the expectation of the Traveling Public with the collaboration of our Airport Partners and the Community

• Foster Economic Development for the Region

• Operate and maintain safe and World-class Facilities

• Act in a fiscally responsible manner
Orlando International By the Numbers

- 2nd busiest airport in Florida
- 73 non-stop U.S. destinations - most in FL
- 48 international destinations
- 856 aircraft operations/day
- Largest airport Rental Car market
- 4th largest land mass in U.S.
- $31 Billion in annual direct + indirect revenue
- Passenger traffic
  - 5th in the nation for origin-destination traffic
  - 14th in the nation
  - 43rd in the world
73 U.S. DESTINATIONS

Source: Innovata flight schedules as of June 16, 2016 (Dilo).

ORLANDO INTERNATIONAL AIRPORT
The Orlando Experience
48 INTERNATIONAL DESTINATIONS

Source: Innovata flight schedules as of June 16, 2016 (OIII).
Passenger Traffic History & Estimate

On the path to 41 million passengers by Summer 2016

Average load factor over last 12 months: 87%

If future scheduled seats and 87% average load factor maintained:
- 40.8m by Jun
- 41.0m by Aug
- 41.5m by Nov

Conservative Estimate (growth at >=2% less than seat growth) (Equivalent to average load factor dropping to 85.0%;):
- 40.5m by Jul
- 41.0m by Oct
Budgeted Revenues
Orlando International Airport
$447,715,000

- Airfield: $38,783
- RAC Fees & Rents: $82,105
- Terminal Rents: $95,664
- Interest & Other: $6,590
- PFC's: $47,548
- Parking & GT: $60,054
- Hotel: $36,370
- Concessions: $54,848
- Other Bldgs & Grounds: $13,136
- FIS/Facilities: $12,617
- 13%
- 8%
- 11%
- 1%
- 3%
- 12%
- 3%
- 3%
- 3%
- 21%
- 18%
- 9%

“No Local Tax Dollars” (in thousands)
Airline Revenues Are Only One-Third of Total Revenues

FY 2014 Operating Revenues

- Concession, Parking & Rental Car 52.0%
- Participating Airline 28.5%
- Non-participating Airline 5.0%
- Other Buildings, Site Rental 5.6%
- Hotel 9.0%
- Airline Rates & Charges 33.5%

Source: Greater Orlando Aviation Authority
## Capital Plan is Demand Driven and Modular

<table>
<thead>
<tr>
<th>Component</th>
<th>Objectives</th>
<th>Cost Estimate ($'s in billions)*</th>
</tr>
</thead>
</table>
| FY 2013-2018 CIP                  | ✓ Maintain existing facilities  
✓ Expand North Terminal capacity to at least 40 MAP  
✓ Improve international processing  
✓ Increasing multi-modal access  
✓ Develop non-aviation revenues                                                                 | $1.13                            |
| South Terminal Complex (STC)      | ✓ Reactivate project deferred from early 2000’s  
✓ Meet projected international and domestic gate demand                                                                                           | 1.80                             |
| FY 2019-2023 Master Plan Projects | ✓ Projects from Master Plan                                                                                                                                                                                  | 0.16                             |
| Total                             |                                                                                                  * CIP does not include the Intermodal Transportation Facility which is funded with Florida Department of Transportation (FDOT) Rail Initiative Funding of $211M | $3.09                            |
2015 Project North Terminal Ticket Lobby

2015A Bonds are funding:
- North Terminal Ticket Lobby Improvements
- Airside 4 Improvements
- Airside 1 & 3 APM

Expanded Ticket Hall
New Counters & Back Wall
Expanded Check-in
2015 Project Airside 4 Improvements

2015A Bonds are funding:
- North Terminal Ticket Lobby Improvements
- Airside 4 Improvements
- Airside 1 & 3 APM

New International Gates, Energy Plant & Restroom Refurbishments

Expanded Federal Inspection Station

New Large Aircraft Gate (A380)
2015 Project Airside 1 & 3 Automated People Mover

Replacement of 34 year old transit system between landside & airside

2015A Bonds are funding:
- North Terminal Ticket Lobby Improvements
- Airside 4 Improvements
- Airside 1 & 3 APM

Vehicle Replacement & Guideway Refurbishment
- Replacement of 34 year old transit system between landside & airside
SOUTH TERMINAL, APM & INTERMODAL

INTERMODAL TERMINAL & SOUTH TERMINAL COMPLEX

- Ultimate Build-Out Development
- 20,000 Car Garage
- Over 1 Million Square Feet of ATOD Opportunity
- Intermodal Station – 4 Rail Systems
- 120 International & Domestic Swing Gate Terminal
- Rent-A-Car
- Secure Sky Rail Gate Connector
- 2 - 500 Room Hotels
South Airport Complex Features

- Airside Terminal (60 Swing Gates)
- Hotels (400-500 Rooms)
- Parking Garages (10,000 Cars)
- Intermodal Terminal
- Landside Terminal C
- Landside Terminal D

- Transportation options:
  - APM
  - ALL ABOARD FLORIDA
  - COMMUTER RAIL
  - LIGHT RAIL
  - STC TERMINAL
SOUTH TERMINAL, APM & INTERMODAL TERMINAL COMPLEX
Ultimate Build-Out with Terminals C & D
INTERMODAL TERMINAL

- North Terminal Complex (NTC) Capacity Reliever
- Automated People Mover (APM) System from NTC
- 500,000 s.f. Facility
- 2,400 Car Parking Garage
- Ground Transportation Facility
- Passenger Drop-Off Lobby
- Remote Check-In
BP-455 TAXIWAY C - SOUTH END REHABILITATION

- Status: DESIGN
- Design Engineer: AVCON, Inc.
- Construction Start: FEB 2017
- Construction End: AUG 2017
- Scope: Rehabilitate existing pavement for the south end of Taxiway C, Taxiway B9 and related areas. Work includes mill and overlay, improvements for pavement geometry, markings, lighting and signage.

OPERATIONAL IMPACT

- Impacts will be identified during design and communicated prior to the event.
BP-462 TAXIWAYS G AND H SAFETY AREA IMPROVEMENTS

- Status: DESIGN
- Design Engineer: Prime Engineering, Inc.
- Construction Start: JAN 2017
- Construction End: JUL 2017
- Scope: Improve the Taxiway Safety Areas for Taxiway G, Taxiway H and portion of Taxiways E and F, complying with current FAA criteria. Construction work includes surface grading and relocation of existing drainage facilities.

OPERATIONAL IMPACT
- Impacts will be identified during design and communicated prior to the event.
BP-467 TAXIWAY J REHABILITATION

- Status: PRE-DESIGN
- Design Engineer: AVCON, Inc.
- Construction Start: JAN 2018
- Construction End: AUG 2018
- Scope: Rehabilitate existing pavement for Taxiway J between TW C and TW J5 and related areas. Work includes mill and overlay, improvements for pavement geometry, markings, lighting and signage

OPERATIONAL IMPACT
- Impacts will be identified during design and communicated prior to the event.
BP-468 RUNWAY 17R-35L REHABILITATION

- Status: PRE-DESIGN
- Design Engineer: AECOM Technical Services, Inc.
- Construction Start: JAN 2019
- Construction End: AUG 2019
- Scope: Rehabilitate existing pavement for RW 17R-35L and related entrance and exit taxiways. Work includes removal and replacement of concrete joints and cracked slabs, improvements for pavement geometry, markings, lighting and signage.

OPERATIONAL IMPACT
- Impacts will be identified during design and communicated prior to the event.
ORLANDO EXECUTIVE AIRPORT (ORL) - 2016
ORL AIRPORT OVERVIEW

- ORL is a publicly owned & public use general aviation airport that is owned by the City of Orlando and operated & managed by the Greater Orlando Aviation Authority (GOAA). ORL, “Orlando’s Original Airport”, opened in 1928 as Orlando Municipal Airport.
- Aircraft operating routinely at the airport include single engine & multi-engine airplanes, turboprops, turbine jet aircraft, rotorcraft/helicopters, banner towers, and airships.
- ORL is a designated (and the primary) general aviation reliever facility to Orlando International Airport (MCO). The FAA defines relievers as “general aviation airports in metropolitan areas that provide pilots with alternatives to using congested commercial service airports or provide general aviation access to the surrounding area.”
- ORL’s operations & maintenance activities and aviation facility improvements are supported by airport tenant lease payments, other airport revenues, and Federal & State agency grants. Ad Valorem (property) taxes are not a funding source for the airport.
- ORL, “Orlando’s Original Airport”, opened in 1928 as Orlando Municipal Airport.
- FMI: https://www.orlandoairports.net/orlando-executive-airport/
In CY 2015, the airport recorded 111,439 aircraft operations including more than 500 international flights and had 191 based aircraft.

Since the 1990s, ORL has hosted several major aviation industry functions:
- Aircraft Owners and Pilot Association’s (AOPA) Expo (1993, 1997)

In its 2014 Florida Statewide Aviation Economic Impact Study, the Florida Department of Transportation (FDOT) estimated ORL’s annual economic impacts:
- Total Employment = 1,559
- Total Payroll = $49,324,000
- Total Output = $158,000,000

In its 2012 General Aviation Airports: A National Asset and 2015-2019 National Plan of Integrated Airport Systems (NPIAS) reports, the Federal Aviation Administration (FAA) identified ORL as a “National Asset” general aviation airport. According to the FAA, a National Asset airport (a total of 9 in Florida and 84 in the U.S.) “supports the national and state system by providing communities with access to national and international markets in multiple states and throughout the United States.”
ORL AIRPORT LAYOUT PLAN (ALP) UPDATE
MAJOR TASKS

- Airfield Pavement Analysis
- FAA Airports GIS (A-GIS/eALP)
- Capital Improvement Program (CIP) Update
- Airport Layout Plan (ALP) Set Update
- Runway Obstruction Survey
H-274/H-281 OEA AIRFIELD MISCELLANEOUS IMPROVEMENTS – PHASES 1 & 2
FAA RUNWAY INCURSION MITIGATION (RIM) PROGRAM
ORLANDO EXECUTIVE AIRPORT

FAA’s RIM Project Alternative

- FAA identified Airports where Risk Factors might contribute to a Runway Incursion
- Identified runway geometry as primary contributing factor.
- Project to correct geometry is in preliminary Design.
- Final Design 2017
Factors Affecting Aircraft Noise

Since there is a wide range of sensitivity to noise, the perceived extent of noise annoyance for an individual is largely dependent on his or her personal reaction to it. The noise heard at any given point on the ground can also vary widely due to a number of factors:

• Generally, older jet aircraft are louder than newer ones
• Generally, departing aircraft are louder than arriving aircraft
• Aircraft departing for distant destinations are louder than those traveling to closer destinations (aircraft with greater fuel load cannot climb as rapidly)
• An aircraft arriving or departing at night is generally perceived to be louder than the same aircraft arriving or departing during the day.
• Low cloud cover may increase the noise level by reflecting noise back to the ground
• Pilots may be directed to avoid thunderstorm activity by flying outside of normal arrival and departure routes
MCO Noise Abatement Procedures

- preferential runway use favoring south flow operations
- assigned headings on departures to the north
- nighttime noise abatement headings
- designated engine run-up areas
- Noise overlay zoning ordinance adopted by the City of Orlando and Orange County requires certain sound level reduction criteria to be met by all new residential construction and noise disclosure for the sale of new dwellings located inside the noise zones
Departures headings are issued to ensure separation between successive departures and to establish aircraft on their routes of flight.
Departures headings are issued to ensure separation between successive departures and to establish aircraft on their routes of flight.
Aircraft Noise FAQ

Can the airport restrict aircraft from flying over specific neighborhoods or restrict hours of operation?

- No. Although the FAA and GOAA coordinate activities frequently, airspace control and management is the sole responsibility of the FAA. The FAA’s first priority is always the safe and efficient separation and routing of aircraft throughout the National Airspace System. The airport cannot restrict access to aircraft nor can it impose operational restrictions outside of federally mandated requirements.

Why do planes fly over my house?

- The FAA has sole authority and responsibility for routing and separating aircraft throughout the National Airspace System. Depending on where you live, aircraft may be flying overhead as a result of standard airspace control procedures. Weather conditions or day-to-day airfield maintenance may change traffic flow patterns.

Why do some planes fly lower than others?

- Aircraft climb rates vary according to size, payload, engines and aerodynamic performance. During warmer months when the air is less dense, aircraft climb at a slower rate. Aircraft will climb more quickly during colder months when the air is denser. Larger aircraft will often appear lower and slower than smaller aircraft.

How is noise measured?

- The DNL is the FAA standard metric for determining the cumulative exposure of individuals to noise. DNL – Day/Night Average Sound Level – is the 24-hour average sound level, in decibels, for the period from midnight to midnight, obtained after the addition of a ten decibels weighted penalty to sound levels for the periods between 10PM and 7 AM, as averaged over the span of one year.
South Flow Operations

The image at right depicts typical flight tracks of MCO and ORL air traffic over a period of 24 hours during south flow operations. Arrivals are depicted in red; departures are depicted in blue.

The FAA is solely responsible for the control of aircraft traffic inside the US National Airspace System.
North Flow Operations

The image at right depicts typical flight tracks of MCO and ORL air traffic over a period of 24 hours during north flow operations. Arrivals are depicted in red; departures are depicted in blue.

The FAA is solely responsible for the control of aircraft traffic inside the US National Airspace System.
Typical Flight Tracks at ORL
ORL Noise Abatement Procedures

- Helicopter routings along approach and departure paths with the least amount of residential use
- Noise overlay zoning ordinance adopted by the City of Orlando and Orange County requires certain sound level reduction criteria to be met by all new residential construction and noise disclosure for the sale of new dwellings located inside the noise zones
The Objective of the Sustainability Management Plan (SMP) is continuous improvement in operations, maintenance, purchasing, engineering and construction at GOAA,” says Phil Brown, GOAA Executive Director. The SMP serves as a central framework to reduce dependency on fossil fuels, lower the demand for potable water, preserve natural lands, divert landfill waste to better uses, and support alternative transportation.
LEED Initiatives and Criteria Updates

New Construction: LEED Campus South Airport
- South Airport APM-ITF
- Terminal C STC-PH1

Existing Buildings: LEED Campus
- Operations Updates
- Entire contiguous campus

Design Guidelines Manual and Sustainable Design Criteria Updates
- Criteria and Specification updates
- Apply to MCO and OEA Airports
SOUTH AIRPORT COMPLEX – GREEN CAMPUS FEATURES

LEED Educational Program
- Signage Displays
- White Paper

Bicycle Facilities/Network
- Bike Trail – off road near Terminal
- Dedicated Bike lanes striped
- South Airport link to regional Network

Quality Transit – Transportation Center
- Bus, Commuter Rail, Airlines, Shuttles

Green Cleaning
Integrative Pest Management
Low Mercury Lighting
Central Florida Energy Efficiency Alliance - Kilowatt Crackdown Challenge

- EnergyStar Portfolio Manager
- Track your energy consumption
- Use the information to reduce your energy consumption

Central Florida Workplace Challenge

- Green Destination Orlando, the City of Winter Park, the City of Orlando, and Orange County CHALLENGE you the community to have the Greenest, Healthiest, and Most Involved work environment in all of Central Florida
- Online competition tools for you to prove it
- Through June 2016