It is with pride and excitement that we share the Greater Orlando Aviation Authority (GOAA) Annual Sustainability Performance Report Card. The information provided here illustrates the efforts of our airport partners to reduce operational waste, mitigate environmental impact and support our community through leadership in sustainability while growing to meet the aviation needs of our region.
Reduce Solid Waste

Goal: Increase waste diversion rate from landfill to 50% by 2018

43.6% of Goal Reached

Waste Diversion Rate 21.8%

Over 95% of construction waste generated from the Automated People Mover/Intermodal Terminal Facility (AMP/ITF) is diverted from landfills.

GOAA Green Team Challenge: Plastic Cap Collection

GOAA’s Green Team employs “competitive recycling” to encourage airport partners to recycle for a cause. Together, airport staffers collected 1,081 lbs. of plastic caps that were recycled and diverted from the landfill, in support of Caps of Love. Caps of Love is a non-profit organization that provides free wheelchairs to disadvantaged handicapped children under the age of 21, while raising money through recycling of bottle caps.

Source: Caps for Love

Total Solid Waste Diverted

2,235.5 tons diverted from landfill

Equivalent Weight of approximately 11.11 Boeing 747 Aircraft

*Operating empty weight of Boeing 747-400 Aircraft

10,994 lbs. of textile waste diverted

3,500 lbs. of uniforms collected

7,494 lbs. of clothing collected at employees lot donation bin

January–September 2017

3,500 lbs. of uniforms collected

January–September 2017

3,500 lbs. of uniforms collected

January–September 2017
Reduce Energy Use

Goal: Reduce energy use intensity by 10% by 2018

Energy Use Intensity (EUI) is a calculation of energy per square foot per year. EUI varies based on climate conditions, user demand, and energy construction measures.

Energy Efficiency Efforts

- Energy savings from ongoing LED lighting upgrades in garages, terminals and airfield
- Enhanced building automation
- On-going high-efficiency air conditioning unit replacements
- GOAA has developed a 10-year Energy Road Map
- The Central Energy Plant at Airside 4 houses four efficient magnetic bearing chillers and two cooling towers to reduce the total EUI

Terminal Energy Use (Per Passenger)

- 2010: 3.76 kWh
- 2015: 3.27 kWh, 8.5% Decrease
- 2016: 2.99 kWh, 12.5% Decrease

Total Energy Savings (2010-2016)

- 9.5 million Kilowatt hours (kWh) Saved

Common use terminal equipment allows airlines to share ticket counter/check-in space, providing for more efficient energy use and passenger flow.
Enhanced Water Conservation
Goal: Reduce potable water use per passenger by 10% by 2018

Water Conservation Efforts
- Low flow sensors and low flow/dual flush in passenger terminal restrooms
- Replacement of two cooling towers
- APM/ITF restrooms include aerators, dual flush toilets, high force/low consumption shower heads, and Water Sense labelling on equipment
- No potable water will be used for irrigation at the APM/ITF and efficient landscape design will result in a 30% water use reduction of non-potable water

Water Use per Passenger
- 2010: 7.34 gallons per passenger
- 2016: 6.55 gallons per passenger

The APM/ITF is expected to save over 30% on potable water use per year

Goal Surpassed!
11.5% Reduction per passenger from 2010

APM/ITF Water Efficiency Designs
The APM/ITF will incorporate Florida native landscaping to minimize irrigation and fertilizer use
Integrate Sustainable Practices into Business Procedures and Written Agreements

GOAA CEO Phil Brown signs the Organizational Sustainability Pledge with the GOAA Green Team in attendance

Fatima Calkins, GOAA Senior Purchasing Agent

 Highlights

 › The GOAA Purchasing Department provides annual training on Green Purchasing for all GOAA staff
 › GOAA established a default web-based setting for staff office supply purchases of environmentally friendly products
 › Fatima Calkins, GOAA Senior Purchasing Agent, received the Buyer of the Year Award from the National Institute of Governmental Purchasing (NIGP) Central Florida Chapter

 Revenue Bonds Receive Green Evaluation

 GOAA became the first U.S. airport authority to receive S&P Global's Green Evaluation, scoring E1, the highest possible score on their scale. A Green Evaluation is an asset-level environmental credential that builds upon current frameworks of governance and transparency (e.g., Green Bond Principles) and considers approaches for climate resilience and environmental impact, providing investors with a comprehensive picture of the green impact and climate risk attributes of their portfolios.


 Percent Recycled/Green Office Products Purchased

 Doubled Concessions Contracts over previous year

49%

(Number of New/Renewed Contracts with Sustainability Language)

Fatima Calkins, GOAA Senior Purchasing Agent

Integrate Sustainable Practices into Business Procedures and Written Agreements
LEED™, Energy Star, and Water Sense building standards are being used as a baseline on future construction projects and renovations.

**Highlights**

- Future South Terminal Complex aims to achieve LEED™ Certification.
- APM/ITF will:
  - Allow passengers to use alternative transportation to access the airport and surrounding community.
  - Monitor indoor humidity levels and space controls to protect building air quality and maximize building comfort for occupants.
  - Increase use of concrete paving instead of traditional asphalt on roads and parking garage roofs to mitigate heat island effect.
  - Only allow the use of carefully selected, low ozone depleting refrigerants.

**What is the USGBC LEED™ Program?**

The U.S. Green Building Council (USGBC) administers LEED™, or Leadership in Energy and Environmental Design. LEED™ is the most widely used third-party verification for “green” buildings with four rating levels. LEED™-certified buildings are resource efficient because they are designed and operated to use less water and energy, and reduce greenhouse gas emissions. GOAA is pursuing LEED™ certification for new and existing buildings (using a campus approach) on MCO property.

Energy cost reductions are predicted to be near 20% over ASHRAE 2010.

The APM/ITF will incorporate LED fixtures, and glass and glazing that reduce heat and glare.
Minimize Environmental Impact

GOAA has installed water level meters and flow meters at strategic locations throughout the ORL property, including this storm water weir.

GOAA regularly monitors water level and quality at both airports with equipment like this staff gauge installation at ORL.

Highlights

› Low impact design and construction practices
› Wildlife hazard mitigation and management program
› Water quality monitoring programs at Orlando International and Orlando Executive Airports
› GOAA operates an airport noise and operations monitoring system, and hosts a web-based flight tracking system that allows the public to follow, capture and review flight activity around MCO and ORL in near-real time
› A volunteer Aviation Noise Abatement Committee (ANAC) advocates for the community on issues involving noise

Protection of Threatened Species

79 Gopher Tortoises safely relocated within 281.46 acres for future south terminal development.

Note: Gopher Tortoise removal was conducted under a conservation permit and an incidental take permit.

Orlando Executive Airport (ORL)

34% reduction in the concentration of Total Nitrogen compared to water entering the property.

Results from the comprehensive water quality monitoring at the Orlando Executive Airport during 2016.
Highlights

› Outreach events have assisted in engaging employee participation in the alternative transportation program

› GOAA was named a Best Workplace for Commuters by the University of South Florida’s Center for Urban Transportation Research (CUTR)

› GOAA will meet regional transportation needs as recognized by FDOT. Modes of transportation accommodated by the South APM/ITF:
  › Rail (Sunrail & Brightline)
  › Taxis, shuttle buses, public buses
  › Automated People Movers

Alternative Transportation to MCO and ORL

› Lynx Bus offers convenient service to world class shopping and entertainment venues, theme parks, and downtown Orlando

› Two stops at ORL provide hourly round-trip service to the University of Central Florida, and designated Historic Districts in the City of Orlando

ORLANDO EXECUTIVE AIRPORT
7TH ANNUAL RUN FOR THE ANGELS
SATURDAY, APRIL 15, 2017
300+ PARTICIPANTS

Proceeds are donated to Angel Flight Southeast, a volunteer pilot organization that provides free air transportation to medical facilities for citizens who are financially distressed or otherwise unable to travel via public transportation.

GOAA Department Directors take a ride on Lynx bus routes and Sunrail Commuter Rail to experience alternative transportation access to the Airport.
Continue Being a Community Leader/Partner in Sustainability

The Orlando Philharmonic Orchestra performs at Orlando International Airport each year during Liberty Weekend (around the July 4th holiday) and Christmas.

Highlights

The GOAA Green Team continues an outstanding program of sustainability education and outreach:

› Quarterly Sustainability Speaker Series luncheons in 2016
› Quarterly sustainability newsletter “The Dirt”
› Monthly volunteer events at Ronald McDonald House and Clean the World

Orlando International Airport Ranked #1 in North America!

J.D. Power, a global leader in consumer insights, advisory services and analytics has ranked Orlando International Airport as a top airport for Overall Customer Satisfaction in the “mega” airport category (more than 32 million annual passengers)

2016 Score 751
2017 Score 778

During the annual Liberty Weekend festivities, GOAA honors an American veteran that has made a significant contribution to aviation in Central Florida with the Colonel Joe Kittinger Award.
GOAA hosted “Sustain Orlando: A Community Response” from May to August 2017. Commissioned by the City of Orlando, the four panel mural was painted by local Orlando artists and made its first stop at MCO.


2017 GOAA Passport to Wellness Program

- 12 wellness lectures and workshops
- 6 retirement/financial lectures and workshops
- On-site health screenings
- On-site fitness classes twice per week