News from the Florida Department of Transportation Aviation Office

Florida Flyer

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domestic and 26 international destina-

tions, including scheduled airline and

Runway Hold Positions

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The FDOT Statewide Airfield Pavement Management Program

by Vu Trinh

The Florida Department of Transportation's (FDOT) Statewide Airfield Pavement Management Program (SAPMP) was established in 1992. Prior to this time, the Federal Aviation Administration (FAA) did not require airports to have an airfield pavement program in place. However, starting in 1995, according to Public Law 103-305, when applying for funding from the federal government on any pavement project that has been constructed, reconstructed, or repaired with money from the federal government, airports must prove that they have already implemented an effective pavement management program.

The purpose of the FDOT Statewide Airfield Pavement Management Program is to help Florida airports comply with the requirements from the FAA. This program also serves as a good tool for the FDOT Aviation Office to evaluate and monitor the pavement conditions at airports around the state. Moreover, another benefit of this program is to assist the FAA in allocating their budget to the nationwide aviation system.

Expertise in pavement management

Since the start of the program, many consultant companies with extensive expertise in the pavement management program have been selected to perform this vital program, such as Eckrose Green Associates, Inc.; MACTEC Engineering and Consulting, Inc.; and URS. In 2008, Kimley-Horn was selected as the primary consultant to conduct the next round of statewide airfield pavement inspections. One of its subcompanies, AMEC (formerly MACTEC Engineering and Consulting, Inc.), who previously was heavily involved in the data collection in this program, was also





Pavement management program training in the field (top) and in the classroom (above).

invited to rejoin the program.

Since 2005, more than 10 training sessions on airfield pavement inspection and distress repair have been conducted by the FDOT Aviation Office. Every year, more than 100 airport staff, district aviation personnel, and airport consultants have been trained through these courses to strengthen their knowledge of airfield pavement inspection and distress repair to serve their airports.

In total, there are 92 airports that are currently participating in the Statewide Airfield Pavement Management Program. Among them are 55 general aviation (GA) airports, 23 relievers (RL), and 14 primary (PR) airports. Annually, approximately 11,000 sample units (20 to 25 percent of the sample units at each airport) are inspected during this inspection cycle. In order to avoid disturbing the airport activities and traffic, the consultants must sometimes conduct their inspections at night. To follow the advice from the FAA, the FDOT Aviation Office has chosen the Pavement Condition Index (PCI) methodology to perform the pavement inspections in Florida. As a result, every three years the process must be repeated.

Save time, improve accuracy

In the 2010/2011 fiscal year, the first phase of another cycle of PCI pavement inspections began. During that time, 40 percent of the airports in Florida were inspected. The software that is used to accommodate the system is MicroPAVERTM. In order to use the latest technology, the geographic information system (GIS) has been incorporated into

(GIS) has been incorporated into the program. The use of GIS has been proven to save time and improve accuracy while locating sample units.

The PCI minimum service level (MSL) desired for runways (primary, reliever, and general aviation airports) is 75; the minimum desired taxiway PCI for primary, reliever and general aviation airports is 70, 65, and 65, respectively. The average overall statewide runway and taxiway PCI is 73 and 80, respectively. As of February 4, 2012, one-third of the remaining airports in phase two have been inspected. The remaining airports will be completed by the end of May 2012.

Statewide pavement training

In conjunction with the pavement inspection course, the FDOT Aviation Office implemented training on airfield pavement inspection and distress repair to broaden the knowledge of the airport staff. The purpose of this training is to help airport personnel understand the PCI procedure and to conduct daily and monthly pavement inspections as required by the FAA. Furthermore, the training will help the airport staff to develop a strong understanding of their pavement in order to make the correct decisions in maintenance and repairs for their airport. The distress repair training course will help the airport staff conduct basic repairs, such as temporary and emergency repairs, while waiting for the optimal time to conduct the permanent repair.

Training sessions in April and May

This year there will be four training sessions. Each course will consist of two days: the first day will be in the classroom, and the second day will be out in the field. In the classroom, the attendees will have the opportunity to learn the inspection procedures that are set by the FAA and the American Society for Testing Materials (ASTM). On the second day in the field, the attendees will have a chance to apply what they have learned in the course.

The first two sessions will be held at Orlando Executive Airport. The airfield pavement inspection course will be held on April 15-16, 2012, and the airfield distress repair will follow on April 17-18, 2012. For the last two sessions, the classroom instruction will be held at the Jackson County Citizens' Lodge in Marianna, and the field work for the last two sessions will be held at the Marianna Municipal Airport. These two sessions will be held on April 30 – May 1, 2012, for airfield pavement inspection and May 2–3, 2012, for the airfield distress repair. (For more information, please contact Vu Trinh at (850) 414-4510 or Vu.Trinh@dot.state.fl.us.)

Pavement management program survey

In order to receive feedback regarding the program from Florida's airports, the FDOT Aviation Office recently conducted a survey. A letter along with a survey form was sent to all 89 of the airports in the state that are participating in the program. On the survey form, there were four categories that the

2012 Airport Directory and Aeronautical Chart Now Available



The 2012 Florida Airport Directory and Aeronautical Chart are now available. If you would like to receive copies of the directory and chart, please contact Fred Karuga by email at Fred. Karuga@dot.state.fl.us. Remember to include your complete mailing address and quantity desired. In most cases, we can mail orders within two weeks of receiving your request. If you have any questions, please call the FDOT Aviation Office at (850) 414-4500.

The Florida Airport Directory and Aeronautical Chart are complimentary publications published by the FDOT Aviation Office, and are not to be sold by any individual or business. \blacklozenge



airports could judge the program on, ranging from Excellent, Good, Fair, and Poor. All of the airports that have been inspected during phase one responded with 97 percent for "Excellent" and 3 percent for "Good." For those airports that have not yet been inspected or received their final report, the survey will be sent along with their final report so they can provide comments on all aspects of the program. The letter and the survey form were also sent to the five airports that are currently not participating in the program to receive any feedback or possible reasons for their exclusion from the program.

All airports that responded to the survey indicated that the pavement inspection program is beneficial to their airports. Most airports also expressed that they would like to have the handson field repair portion added into the airfield distress repair session. Based on these responses from airports, we have added a field repair portion to the upcoming airfield distress repair sessions.

Serving Florida's airports

The FDOT Aviation Office's Statewide Airfield Pavement Management Program continues to serve as a principal component of the pavement maintenance and repair plans for Florida's airports. From the surveys, many airport directors and managers expressed that they use the program as a high priority solution to conduct their maintenance and repair program. Serving Florida's airports and facilitating the aviation transportation system are the highest focuses of the FDOT Aviation Office.

If you have any questions or comments regarding the program, please contact me by phone or email. ◆

Vu Trinh is the Statewide Airport Engineering Manager for the FDOT Aviation Office. Contact him at (850) 414-4510 or Vu.Trinh@dot.state.fl.us.

Emergency Response Guidebooks Available Online

The Florida Department of Transportation Aviation Office is pleased to announce the availability of two important resources that are now available on our website—the Aviation Emergency Response Guidebook and the Basic Aircraft Guide for Emergency Responders. These two important resources serve as helpful tools for airport directors and staff, emergency responders located on airports, and emergency responders who have little-to-no experience with aviation-related emergencies.

Aviation Emergency Response Guidebook

The Aviation Emergency Response Guidebook includes a catalog of aviation and airport-related emergencies, a summary of the different agencies involved in responding to emergencies at airports or emergencies involving aircraft, photos and descriptions of specialized equipment used in aviation emergency response, and best management practices for airport staff and emergency responders.

The Aviation Emergency Response Guidebook also includes a Basic Guide to Airport Operations, a component of the Aviation Emergency Response *Guidebook* that informs emergency responders who are not familiar with airports of various aspects of an airport, including:

- Basic terminology used on airports,
- General airport layouts and potentially hazardous areas,
- Typical airport signage,
- Typical airport pavement markings,
- Standard procedures for accessing airports, and
- Appropriate communication procedures.

Another component of the *Aviation Emergency Response Guidebook* is the Airport Emergency Plan templates section. This section includes templates for both Part 139 certificated and noncertificated airports to use when evaluating, updating, or developing airport emergency plans.

Basic Aircraft Guide for Emergency Responders

The Basic Aircraft Guide for Emergency Responders is a tool to help first responders identify certain critical details about different makes and models of aircraft, such as fuel tank locations, fuel line locations, fuel capacity, battery locations, passenger capacity, the presence of ballistic recovery parachutes, and the presence of seatbelt airbags. This tool also includes diagrams illus-



trating fuel and electrical shutdown procedures. manufacturer recommendations for fire suppression, and basic communicaprocetion dures.

Together, these two resources provide tools that

Send Us Your Aviation Award Nominations

Please email your nominations by May 31

The FDOT Aviation Office will present the Florida Aviation Awards at the Florida Airports Council's annual conference in July. The awards include outstanding aviation professional, distinguished aviation service, general aviation airport, commercial service airport, general aviation airport project, and commercial service airport project.

Airports, local government officials, federal officials, consultants, contractors, industry partners, and department staff who wish to nominate professionals, airports, or projects for these awards may send nominations to Aaron Smith, Aviation Office Manager, at Aaron. Smith@dot.state.fl.us. Nomination requirements may be found on the Aviation Office website at www.dot.state. fl.us/aviation under "General Info-Florida Aviation Awards." Nominations must be received by May 31. ◆

can be used by airport staff, emergency responders at Florida's airports, and emergency responders not involved with aviation on a regular basis. These resources can help to continue improving emergency response in Florida.

To obtain a copy

To obtain electronic versions of the *Aviation Emergency Response Guidebook* and the *Basic Aircraft Guide for Emergency Responders*, please visit the website of the FDOT Aviation Office at www.dot.state.fl.us/aviation, and select Publications–Florida from the Resources option.

For more information, please contact Jason Myers, FDOT's Airport Inspection and Safety Manager at (850) 414-4515 or Jason.Myers@dot.state. fl.us. ◆

Airport Compatible Land Use Project

by Sergey Kireyev

The latest phase of Airport Compatible Land Use outreach came to a close in November 2011. During this part of the outreach effort, more than 500 real estate, development, and planning professionals from approximately 200 various agencies and organizations took part. During the presentations held as a part of this effort, participants were encouraged to ask questions and provide feedback. The resulting compilation of participant feedback adds another dimension to the search for flexible and persistent solutions to airport land use compatibility concerns.

Overall, general feedback from participants highlighted the relevance of this project and the *Airport Compatible Land Use Guidebook* to their daily activities. Participants expressed interest in expanding FDOT's outreach efforts as well as searching for solutions to airport land use compatibility problems with the goal of continuing the economic and safety benefits that result from protecting our public-use aviation facilities from encroachment.

Clear, predictable ordinances

From the standpoint of development considerations, several concerns were highlighted. First and foremost, the participants from the development community noted the need for clear, predictable, and concise zoning ordinances. Unpredictability and a lack of clarity may result in some developments not being able to be redesigned to meet land use or zoning restrictions near an airport. Also, development community participants noted potential difficulties financing a building project which is redesigned in order to meet tall structure requirements near aviation facilities.

Participants have suggested a number of improvements to the guidebook and have recommended corrections to current compatibility strategies. One of the key proposed inclusions to the guidebook was a discussion of where the Transfer of Development Rights (TDR) process has been used successfully to address land use compatibility in airport environs. This item has been one of particular interest to the airport community nationwide, and will be addressed in the upcoming revision of the *Airport Compatible Land Use Guidebook*.

Alternative land uses

Another great proposal focused on the inclusion of a discussion on alternative compatible land uses, such as logistics businesses, solar farms, green houses, and so on, as well as the inclusion of a list that specifies what land uses are most compatible with aviation facilities. The participants also requested that examples of inter-local agreements and a sample of a model zoning ordinance be included in the next guidebook update. Suggested corrections seek to clarify the limited utility of acoustic insulation in cases of noise mitigation, since it is only useful or applicable to indoor noise reduction.

At this time, the next steps in the Airport Compatible Land Use Project involve focusing on existing rule and statutory regulations, identifying suggested corrections and improvements, and proposing amendments and changes to the aforementioned regulations. The *Airport Compatible Land Use Guidebook* is slated to be significantly revised following that effort.

Sergey Kireyev is the Airspace and Land Use Manager for the FDOT Aviation Office. Contact him at (850) 414-4502 or Sergey.Kireyev@dot.state.fl.us.

Aviation Office Web Updates

by Erik R. Treudt

The FDOT Aviation Office has completed a number of new enhancements to our web-based applications which will improve communication with aviation stakeholders throughout the state.

The Florida Aviation Database (FAD) is one application that we recently improved to help communicate valuable information to stakeholders. First, we developed a tool within FAD which airports can use to facilitate relief efforts during a disaster. This new disaster preparation module in FAD allows airports to identify specific resources which may be available to help assist in relief efforts. Also, we provided a transfer of information, called GATOR, to our State Emergency Management Office website (www.floridadisaster. org), which allows the public to access general information about public-use airports and their operational status.

Other website updates include an addition to our FDOT Aviation Office website (www.dot.state.fl.us/aviation) which provides an easy-to-access map link with information for Florida's 129 public-use airports. Enhancements to improve both access and functionality for the Continuing Florida Aviation System Planning Process (CFASPP) website (www.cfaspp.com) were completed early last year. Visitors to the CFASPP website can now access project updates, links to studies, and Florida Aviation System Plan (FASP) documents through an easier interface. They are also able to more efficiently identify committee meeting agendas, minutes, and regional overviews.

Efforts are ongoing to bring additional efficiency through revisions to these website portals and applications. For further information on these web updates or any FDOT projects, please visit the CFASPP website at www.cfaspp. com, and then click on the Projects link at the top of the page.

If you have any questions about website updates, please do not hesitate to contact me. \blacklozenge

Erik R. Treudt is the Aviation System Manager for the FDOT Aviation Office. Contact him at (850) 414-4505 or Erik. Treudt@dot.state.fl.us.

Orlando Sanford International Airport



Continued from page 1

are ILS approaches on both Runways 9L and 27R. The extension of Runway 9L/27R to 11,000 feet is scheduled for construction in the fall of 2012.

Both Runways 9L and 18/36 have safety areas 500 feet wide, centered on the runways and extending 1,000 feet beyond the ends of the runways. Runway 18/36 is concrete/asphalt, and it is 6,000 feet long by 150 feet wide. Runway 9C/27C is 3,578 feet long by 75 feet wide. It can be used as an air carrier taxiway by exiting on Taxiway M to the terminal ramp. Runway 9R/27L is 6,647 feet long by 75 feet wide, with an ILS on Runway 9R.

The taxiways are asphalt. Taxiways B, C, and L are 75 feet wide; all other taxiways are 50 feet wide except for Taxiway S, which is 35 feet wide.

Airport history

Orlando Sanford Airport was established before the 1940s as an 865-acre airport with two runways, owned by the city of Sanford. In June of 1942, the airport became a Naval Air Station, acquiring an additional 615 acres of land and serving as a fighter and dive-bomber training base. Many of the facilities that the U.S. Navy constructed on the property are still present at the airport today, some of them serving as storage hangars.

After World War II, the city of Sanford again acquired the airport and named it Sanford Airport. In the early 1950s, the airport went back to the ownership of the U.S. Navy and served as a training base during the Korean and Vietnam Wars for fighter, attack, and

Economic Impact

Total annual economic impact of Orlando Sanford International Airport follows:

- Total employment: 18,025 jobs
- **Direct impacts: \$973,899,800** (from the tenants/businesses at the airport and construction projects undertaken by the airport or by on-site businesses)
- Indirect impacts: \$447,224,900 (associated with spending from visitors who arrive in the area by way of general aviation aircraft)
- Multiplier (additional) impacts: \$1,108,899,300
- Total economic activity: \$2,530,024,000

—from the Florida Statewide Aviation Economic Impact Study, completed in March 2010

reconnaissance aircraft until the base closed in 1968. The airport was deeded back to the city of Sanford in 1969. The Sanford Airport Authority was created in 1971 and has been responsible for the operation, maintenance, and development of the airport and the airport's facilities since that time. The airport authority has a unique public-private venture with TBI Airport Management, Inc., to manage both the international and domestic terminals, develop additional air service, and provide ground handling and cargo services.

The Naval Air Station Sanford Memorial Park, located at the entrance



Photographs courtesy of Orlando Sanford International Airport

Aerial view of Orlando Sanford International Airport (top), and baggage claim area (above).

to the airport, features a restored RA-5C Vigilante aircraft and honors the rich heritage of the naval station and all those who served at and supported the base. At present, a second aircraft, the Lockheed PV-1 Ventura, is being restored by the Sanford Memorial Committee to accompany the Vigilante at Memorial Park.

Commerce park

Sanford Airport Commerce Park occupies 395 acres on the west side of the airport property. The park has more than 90 tenants in a number of businesses including automotive bumper





Parking garage at Orlando Sanford International Airport (top), and entrance sign (above).

repair, retail lumber, manufacture of irrigation products, dock and marine aluminum fabrication, automotive repair, and more. The park boasts a 95 percent occupancy rate on existing buildings. Sanford Airport Commerce Park is also home to the Seminole County Supervisor of Elections and a number of ancillary facilities for the Seminole County Sheriff's Department, including the Eugene Gregory Youth Facility.

Businesses located on airport property offer maintenance, jet fuel, aviation insurance, aircraft sales and storage, flight training, avionics, and aircraft upholstery repair. The airport is served by two FBOs, Avion by Quinn, Inc., and Starport Aviation, on the west and north ends of the airfield, respectively.

Orlando Sanford International Airport has a dedicated air cargo facility with ramp space and a 40,000-square-foot warehouse that is more than 96 percent occupied. The airport handled more than 3,000 tons of air cargo in 2011, all of which was international.

Approximately 45 percent of the airport's annual general aviation operations are related to flight instruction, with four businesses at the airport

Points of Interest

Orlando Sanford International Airport reports:

- 368 based general aviation aircraft
- 1,577,307 passengers (domestic and international) in 2011
- 218,181 operations in 2011

providing flight training and employing more than 100 flight instructors.

ARFF and the SAPD

Both the Airport Rescue and Firefighting (ARFF) Department and the Sanford Airport Police Department (SAPD) operate 24/7. The ARFF Department is equipped to respond at Index D and can respond at Index E with 24-hour notice. Airport Operations and the 11-member SAPD are supported by a manned dispatch center that also monitors the security system airportwide. Both departments train routinely with local agencies and have cultivated a broad and very effective multi-jurisdictional emergency response system.

Both the city of Sanford and Seminole County are committed to the continued development of the airport and have designated Orlando Sanford International Airport as their number-one targeted area for economic development.

For more information about Orlando Sanford International Airport, see the airport's website at www.orlandosanfordairport.com, and the airport authority's website at www.osaa.net. \blacklozenge

Calendar

Please contact event organizers before attending in case of cancellation due to weather or other factors.

March 27 – April 1

SUN 'n FUN International Fly-In & Expo, Lakeland Linder Regional Airport (LAL); for more information, see www.sun-n-fun.org or call SUN 'n FUN at (863) 644-2431

April 4

Statewide CFASPP Meeting, Orlando International Airport (MCO), GOAA Board Room; for more information, see www.cfaspp.com

April 28

2nd Annual Gator Fly-In, Gainesville Regional Airport (GNV) at the University Air Center (UAC) ramp; for more information, see flygainesville.com or call Mikaela Lunday at (352) 373-0249

May 19

2nd Annual DeFuniak Springs Fly-In, "Marvel of Flight 2012," at DeFuniak Springs Airport (54J); for more information, see www.defuniaksprings.net or contact Airport Supervisor Kelly Schultz at kelly@ defuniaksprings.net

May 26

Wings, Strings & Other Classics; Kendall-Tamiami Executive Airport (TMB); for more information, see www.wingsovermiami.com or call Suz at (305) 323-9995

July 22–25

43rd Annual FAC Conference and Exposition in Naples; for more information, see www.floridaairports. org, or call the Florida Airports Council at (850) 224-2964

For more information about CFASPP, see www.cfaspp.com.

Runway Hold Positions

by Jason Myers

n this issue of the *Florida Flyer*, we will continue our discussions on airport safety and other important aspects of Florida's airport licensing program. A key safety requirement for an airport to maintain and improve upon is the runway hold position.

The runway hold position denotes an entrance to a runway from a taxiway. It identifies the location where a pilot should be assured that there is adequate separation with other aircraft before proceeding onto the runway. The runway hold position is determined by factors such as type of surface, width of taxiway, and runway approaches, and it can be denoted by a sign or markings placed on pavement.

Taxiway signs

Recycled paper $\textcircled{\blue}{\blue}$ Printed on

For a taxiway that is unpaved, a holdtaxiway that is less than or equal to 150

ing position sign shall be located outside the primary surface on the left side of a

that are greater than 150 feet wide. The sign shall consist of the runway designation numbers separated by a dash such that their arrangement indicates the direction to the corresponding runway threshold. The numbers shall be white on a red background. The mounting legs for each sign shall be frangible. The sign face shall be no less than 18 inches tall and 30 inches wide. The runway designation numbers shall be no less than 12 inches tall and the sign shall not be more than 42 inches high.

feet wide or on both sides of taxiways

For a taxiway that is paved, holding position markings shall be marked in yellow, and they shall consist of four lines and three spaces, each 6 to 12 inches wide. Two lines shall be solid and always located on the side where the aircraft is to hold. The other two lines are dashed with spaces being three feet long. The markings shall extend completely across the taxiway. The markings shall be installed perpendicular to the taxiway centerline, but may be angled as needed where two or more taxiways intersect at the hold line. Holding position markings shall be placed 125 feet from visual runways serving small aircraft, 150 feet from visual runways serving large aircraft or with non-precision approaches, and 200 feet from runways with a precision approach.

To learn more

If you would like to know more about the state requirements for airport licensing concerning your facility, please refer to Chapter 14-60, Florida Administrative Code. This documentation is available on the Florida Aviation website at www.dot.state.fl.us/aviation (select Publications-Florida from the Resources option).

As always, please feel free to contact me if you have questions or require additional information concerning Flor-

4515 or Jason.Myers@dot.state.fl.us.

ida's airport licensing program. Jason Myers is the Airport Inspection

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