



Project Number

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Florida Airport Sustainability Tracking/ Monitoring System

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Current Situation

Florida is one of few states that have developed a continuous planning process for aviation that helps maintain and enhance the system using a sustainable development approach, which adds ecological and social goals and measures to traditional economic measures. While Florida airports are not required to report and plan using these additional measures, many have adopted aspects of this approach and experienced its benefits in reduced operating and maintenance costs, reduced impacts on Florida's environment, improved relationships with community neighbors, and more. The Florida Department of Transportation (FDOT) seeks to encourage sustainable planning and reporting for airports through its Airport Sustainability Guidebook and other tools.



Many Florida airports are in environmentally sensitive areas and near commercial and residential areas.

Research Objectives

University of South Florida researchers surveyed groups with an interest in sustainable airport development, explored improved performance metrics, and developed a Web-based monitoring/tracking system that facilitates the tasks of sustainable performance monitoring.

Project Activities

Sustainable airport management is part of a broader effort across states and countries to create and implement a sustainable planning and design process for aviation in general. The framework for this effort and for this project encompasses four areas: Economic viability, Operational efficiency, Natural resource conservation, and Social (EONS).

The researchers surveyed industry partners about their sustainability performance tracking and monitoring. They found that more than 50% of Florida airports have a sustainability program or policy, while 41% of airports do not track sustainability performance regularly. Most commercial service airports track, but do not necessarily report, some environmental-related performance metrics, such as water conservation, materials and resources. General aviation airports tend to track and report only the economic-related performance metrics.

Based on analysis of the survey and a review of the literature, the researchers identified performance metrics under each EONS category and determined how to calculate them. Potential data sources for tracking the proposed performance metrics were also identified.

To facilitate maintenance of sustainable airport performance records, the researchers developed a Web-based system, which was incorporated into the existing Florida Aviation Database. The system can archive data, compute sustainability measures, and compare planning concepts. The system was demonstrated for two airports, selected for their role in the Florida aviation system and their expressed interest in participation: the commercial service airport at St. Pete-Clearwater International Airport and the general aviation airport at Immokalee Regional Airport.

Project Benefits

Improved methods will enhance the proven benefits of sustainable development for the organizations that use them and the communities they serve.

For more information, please see www.fdot.gov/research/.