

Center for GIS at Towson University

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Client

The Maryland Aviation
Administration

Project

Enterprise GIS
Development and
Implementation

Geospatial Web
Development and Hosting

Geospatial Database
Development

Web site

www.marylandaviation.com



Building GIS into an Airport Engineering Information System

The Center for GIS at Towson University (CGIS) is assisting the Maryland Aviation Administration (MAA) Office of Engineering and Construction Management with establishing an Airport Engineering Information System (AEIS) that is expected to be fully operational by 2011. The GIS-based platform will provide MAA with agency-wide access to GIS data and scanned engineering documents.

In the first phase of the project, CGIS partnered with Grafton Technologies to perform a GIS Needs Assessment for MAA. Diverse users of spatial data at Baltimore-Washington International and Martin State Airports were interviewed during the information-gathering process, which resulted in 28 recommendations that form the foundation of the AEIS. An AEIS Committee comprising stakeholders from key airport divisions was formed, and data-related standards (GIS, CADD, Addressing, Quality, and Security) were created.

Key operational components of the AEIS implemented by the CGIS/Grafton team include:

- A GIS data viewer that makes a variety of data available to airport personnel, such as terminal space allocation, planimetric, and utilities data, as well as high resolution orthophotography;
- An Engineering Document Retrieval System (EDRS) that allows users to search a database of over 30,000 engineering drawings via a geographic or keyword-based interface;
- An Engineering Drawing Review Application (EDRA), which will enable MAA engineering design project teams and design consultants to circulate, review, markup, and comment on design drawings, and to track and manage these documents throughout the various stages of the design process.

