

Michigan Statewide Airport Pavement Management System



The Michigan Department of Transportation Airports Division (Division) was one of the pioneers in the use of airport pavement management at the state level, but it became concerned about achieving the full potential of its airport pavement management system (APMS). To address this concern, the Division retained Applied Pavement Technology, Inc. (APTech) to take its airport pavement management activities to the next level. Due to the Division's satisfaction with APTech's work, this contract was recently renewed for an additional three years.

The overall goal of the project is to assist the airport sponsors, the state, and the Federal Aviation Administration in developing cost-effective plans for the preservation and rehabilitation of the airport pavement infrastructure at Michigan airports. Another goal is to help Michigan's airports in the National Plan of Integrated Airport Systems remain in compliance with Public Law 103-305 regarding airport pavement maintenance management.

The first multi-year project, completed early in 2009, included seventy-six airports, with approximately one-third of them assessed each year. The second three year project, initiated later in 2009, includes an additional twenty airports for assessment. The conditions of the pavements are being evaluated using the PCI procedure and the data are being used to update the Division's MicroPAVER pavement management system. At the end of each project year, the collected data are analyzed to determine current pavement conditions, project future pavement conditions, and develop recommendations for the maintenance and rehabilitation (M&R) of the pavement system.

An important part of the project is the distribution of the data and the effective communication of pavement-related needs to key audiences. To ensure that the data will always be readily accessible to everyone who needs it, regardless of their technical background, APTech developed an interactive pavement management data access program that is updated after each round of pavement inspections. This program can be viewed on any computer with an Internet web browser. This technology provides instant access to the most commonly requested pavement management information—such as PCI maps, distress photographs, and M&R recommendations—without requiring the user to own and operate the pavement management system.

The Michigan Department of Transportation was so satisfied with APTech's work on this project that it awarded APTech with the Michigan DOT Bureau of Aeronautics and Freight Services 2009 Consultant of the Year award.