

Arizona Statewide Airport Pavement Management System



In 2000 Applied Pavement Technology, Inc. (APTech) established the Arizona airport pavement management system (APMS) for the Arizona Department of Transportation (ADOT) Aeronautics Group to provide them with a tool to proactively manage the pavement infrastructure at fifty three Arizona airports.

The initial study performed in 2000 indicated that state-funding levels were insufficient to sponsor all necessary pavement maintenance and rehabilitation (M&R) projects. Based on the results of the pavement management study conducted by APTech, the Aeronautics Group initiated the Airport Pavement Preservation Program (APPP) (recipient of the Arizona State Quality Award). The APPP allows the state to make the best use of its limited budget by funding those work types that have historically proven to provide the most benefit per dollar expended. Because it is a state-level program, the Aeronautics Group can provide airports with funding for crack sealing, slurry seals, thin overlays, and concrete restoration. This is especially important for smaller facilities or those located in sparsely-populated areas which could not otherwise afford extensive maintenance efforts.

Due to ADOT's satisfaction with APTech's work, the Aeronautics Group retained APTech to update its APMS again in 2003, 2006, and 2010. During these projects, APTech updated the systems inventory and maps, and conducted pavement inspections using the PCI methodology. An 8-year plan for pavement projects, a statewide report, individual airport reports, an APMS procedures manual, and an executive summary were also produced. During the 2010 project APTech also developed an interactive pavement management data access program that is accessed via ADOT's web page. This has greatly facilitated the access and use of the pavement management information. In addition, a training course on the PCI procedure and the MicroPAVER pavement management software was conducted.

The APMS and the APPP have been highly successful. The Aeronautics Group is now able to proactively manage the pavement infrastructure at airports around the state with software that can help to identify pavement-related needs and develop prioritized lists of pavement-related projects. Individual airports have reported that it is much easier to plan ahead for pavement maintenance and rehabilitation using the results of the APMS.