

## Charleston Air Force Base, Northfield Air Station, and Pope Air Force Base MicroPAVER Pavement Management System Update

In October 2007, Applied Pavement Technology, Inc. (APTech) was contracted through the Air Force Civil Engineer Support Agency to provide technical expertise for the update of a MicroPAVER pavement management system at Pope Air Force Base (AFB) in North Carolina and Charleston AFB and Northfield Air Force Station (AFS) in South Carolina. APTech worked as a subconsultant to Earth Tech on this project to support daily Department of Defense operations.

Charleston AFB provides airlift of troops and passengers, military equipment, and aeromedical supplies. Northfield AFS, an auxiliary training field for Charleston AFB, is a back-up field for NASA space shuttles and home to one of the longest Air Force runways. Pope AFB provides rapid deployment combat airlift for a range of military purposes and assists with Air Force operational requirements.

APTech conducted a thorough systems inventory to determine the cross section and construction history of the different pavement areas and used this information to divide the pavement network into management units. After APTech performed detailed pavement surveys using automated video imaging data collection equipment, the collected systems inventory and pavement condition data were entered into a MicroPAVER database.

APTech customized the MicroPAVER software by determining unit costs for pavement maintenance and rehabilitation (M&R) activities and developing pavement performance prediction models specific to Barksdale AFB pavements. APTech then evaluated several budget scenarios to assess the impact of each on the overall pavement condition over time. To help the AFB maintain each pavement section above a specified acceptable condition over a 5-year period, APTech provided specific repair guidelines and summarized the key results from the project, such as the pavement condition index and M&R plan, on color-coded maps in accordance with Air Force standards.