



# FACT SHEET

## UNITED STATES AIR FORCE

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## STRUCTURAL PAVEMENT EVALUATION TEAMS

The Air Force Civil Engineer Support Agency, headquartered at Tyndall Air Force Base, Fla., has two airfield pavement evaluation teams that provide a structural pavement evaluation capability to the Air Force. The teams are trained and postured to respond to contingency operations and emergency requests, and to perform routine evaluations to meet mission requirements.

A pavement evaluation team typically consists of four people (one civil engineer officer, typically a captain), one superintendent (Air Force Specialty Code 3E571, Master Sgt.) and two technicians (Air Force Specialty Code 3E551, Staff Sgts.) who are specifically trained to conduct the field and laboratory testing and perform data analysis. The field testing equipment typically consists of a pavement core drill; heavy weight deflectometer or electronic cone penetrometer; and a dynamic cone penetrometer. This equipment is used to determine the pavement thickness and strength of the underlying soil layers. Laboratory testing includes determining the soil classification and concrete flexural strength.

**Routine Evaluations:** Each year in April or May, the Air Force Civil Engineer Support Agency requests major commands to identify bases in a priority listing that they want evaluated the following fiscal year. The major commands base their requests on the amount of major rehabilitation and documented structural degradation since the last pavement evaluation. Typically, structural evaluations at Air Force bases are conducted once every 10 years. The agency then integrates the requests to determine the next year's schedule.

**Contingency and Emergency Evaluations:** When contingencies or emergencies arise, the pavement evaluation team can provide commanders and senior leaders with an on-site assessment of the airfield capability and make recommendations based on proposed aircraft operations. The team's recent contingency experiences include responding to operations in Rwanda, Haiti, Bosnia-Herzegovina and Saudi Arabia.

### Points of contact

For more information about the Air Force Civil Engineer Support Agency Airfield Pavements Evaluation Team, call (850) 283-6334 DSN 523-6334, or send an e-mail to Mr. Jim Greene at [james.greene@tyndall.af.mil](mailto:james.greene@tyndall.af.mil), or call public affairs at (850) 283-6114 DSN 523-6114.



The pavements evaluation team uses a heavy weight deflectometer to test how much pavements bend or flex, much like what occurs when an aircraft lands on a runway. The device can deliver a simulated 50,000 pound load to the pavement. The C-17 Globemaster III weighing in at 500,000 pounds or so can't even put that much force per square foot during landing, so the team really tests the airfields to the limit. The deflectometer then records the pavement's "response" to the load.



As part of an airfield evaluation, the team pokes a dynamic cone penetrometer at least four feet into the soil beneath the airfield to determine the base course layer strength and thickness of "Mother Earth."

(Current as of November 1997)