NASA AMES RESEARCH CENTER
MOFFETT FIELD, CA

Application: Runway 14R/32L is a runway for NASA that receives extensive daily C-17, C-131, KC-135, P3 Orion and military 747 traffic. The runway is also used as a touch-and-go practice landing strip for Air Force One.

The Challenge: The solution needed to withstand heavy aircraft loading and be installed quickly for minimal disruption to the runway.

Site Conditions: Prior to the installation of the Endurablend™ System Polymer Cement Slurry Surfacing (PCSS), the runway suffered from extensive raveling, paving seam separation and numerous distressed pavement areas within the landing and taxi zones. Core research performed by DMJM Aviation Inc./AECOM revealed that 85% of the runway sub-base was in stable condition; however, 15% suffered from settling soil conditions that leached water via hydrostatic pressure through the oxidized and raveled paving seams from the previous paving work performed approximately 10 years earlier.

Alternative Solutions: Slurry surfacing, microsurfacing, chip seal and ultra thin asphalt applications could have been used but none provided all of the advantages that are offered with a PCSS System.

The Solution: The initial phase of the contract called to remove all rubber and existing markings by standard practices of high pressure water removal systems. The oxidized paving seams were then sterilized by a heat lance that used compressed air and a propane torch combined into one unit to clean and sterilize the open seams that contained vegetation and organic contamination.

Once the seams and all cracks were sterilized, a concentrated polymer modified slurry composition was placed into all paving seams and cracks and

Runway and taxi zones suffering from extensive raveling and distressed pavement areas have been repaired with Endurablend.

PROJECT HIGHLIGHTS

Project:
NASA Ames Research Center
Runway 14R/32L

Location:
Moffett Federal Airfield

Installation:
April/May 2008

Product:
ENDURABLEND™ System PCSS,
Endurablend EB-8500 Joint Repair System
and GlasGrid® 8502.

Quantity:
328,000 square feet of Endurablend PCSS
108,560 linear feet of Endurablend PCSS Joint Repair System
120 square yards of GlasGrid 8502

Owner/Developer:
NASA Ames Research Center

Engineers:
DMJM Aviation, Inc./AECOM
allowed to gravity fill, self level and cure. In order

to fill all seams and joints, three overall applications

of the concentrated polymer modified patching

composition were applied with a layer of

GlasGrid™ 8502 Pavement Reinforcement Grid,

which is a patent pending repair method.

Once the repair work was completed, the runway

was scraped of debris and blown clean by high

pressure air equipment. The Endurablend System

PCSS was then applied to a specific area of the

runway with a single 300 gallon placer pulling a

12 ft wide extrusion blade. Material was batch

mixed using a 1,000 gallon batch mixing machine

on a separate flat bed utility truck in order to keep

up with the pace of the 350 placement unit. Daily

production of the 350 placement unit reached
daily production rates of up to 130,000 square
feet of PCSS per day working approximately 10
hours per day with a six man crew.

**The Endurablend™ Advantage:** Results were

significant. The project was completed three weeks

ahead of schedule. The owner (NASA) was very

pleased with the outcome as evidenced by their

May 28, 2008 letter. (A copy of the letter is posted

on the Tensar website and available upon request.)

**Additional Information and Services:**

Tensar International Corporation, the leader in

geosynthetic soil reinforcement, offers systems for

improving structures such as roadways, railyards,

construction platforms and parking lots. Our

products and technologies, backed by the most

thorough quality assurance practices, are

at the forefront of the industry. Highly adaptable,
cost-effective and installation-friendly, they

provide exceptional, long-term performance

under the most demanding conditions. Our

support services include site evaluation, design

consulting and site construction assistance.

For innovative solutions to your engineering

challenges, rely on the experience, resources

and expertise that have set the industry standard

for more than two decades.

Cracks were treated with Endurablend Joint Repair System
before application of the Endurablend System PCSS using
the 350 placement unit.

For more information on Endurablend™ System or other Tensar Systems, call 800-TENSAR-1,
e-mail info@tensarcorp.com or visit www.tensar-international.com.