Period Covered: 3/31/03 through 6/30/03 (Quarterly Report)

KSDOT Progress Report

for the

State Planning and Research Program

PROJECT TITLE: Evaluating Load-Distribution, Fatigue Performance, and Horizontal Shear Transfer Mechanisms in Fiber-Reinforced Composite Honeycomb Bridge Decks		
PROJECT MANAGER: Dave Meggers	Project No: TPF-5(071) RE-0330-01/RE-0332-01	Project is: _____ PLANNING __X__ RESEARCH & DEVELOPMENT
Annual Budget $100,000	Multi Year Project Budget $223,900	

PROGRESS: Approximately ½ of the double-shear specimens have now been tested. A new hydraulic power supply unit was purchased and installed for the project. The PI also assisted the research team of Dr. Youqi Wang with instrumentation and testing of 6 FRP Honeycomb beams.

In addition, a Project Planning Meeting was held to determine specific tasks to be completed by the research team. During the meeting, it was decided that embedded thermal sensors, laser sensors (for deflections), and acoustic emission sensors will be applied to the detour bridge when constructed. Finally, the Russell bridge will be evaluated again for changes in the deflections due to loading and thermal response will be evaluated for changes. This data will be compared to the original data taken shortly after installation.

Unfortunately, the graduate student, Ondrej Kalny, left Kansas State University for a full-time engineering design position in New York City. In addition, a large portion of this work, including the design of test specimens will be performed in collaboration with Dr. Steve Cai at Louisiana State University. Until very recently, KDOT and LSU were unable to finalize a contract so Dr. Cai was unable to work on the project.

PROJECT PERSONNEL FROM KSU CIVIL ENG: Dr. Robert J. Peterman, Mike Stein, Ondrej Kalny

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

The P.I. will work with Dr. Cai (Assistant Professor at LSU) to design the test specimens for fabrication by Kansas Composites, Inc. The experimental setup for the large panel distribution width tests will also be designed and fabricated. In addition, testing of all remaining double-shear specimens will be completed.

STATUS AND COMPLETION DATE:

Percentage of work completed to date for total project: Project is 15 % Complete

__X__ on schedule _____ behind schedule, explain:

Expected Completion Date: 12/31/04