Experimenting with a helikite

CTRE is experimenting with a helikite, which is part kite and part helium balloon, as a rapidly deployable, low-cost aerial platform for transportation research (e.g., safety/traffic movements, work zones) and monitoring applications (e.g., traffic, security). Reg Souleyrette, associate director for transportation planning and information systems, says next he’d like to evaluate the stealth, capacity, and stability of the helikite using a clear one that isn’t as noticeable to motorists.

Mike Cook (left) from ISU’s High Altitude Balloon Experiments in Technology team and Molly O’Brien (right) get the helikite in the air while Dan Gieseman (middle) helps with the camera.

CTRE’s helikite is bright red and approximately eight feet long when fully inflated.

Partnership for Geotechnical Advancement

In 2002, Iowa’s grading industry joined forces with the Iowa Department of Transportation and CTRE to form the Partnership for Geotechnical Advancement (PGA). The PGA will promote geotechnical research and technology transfer.

The PGA has created a sponsored research fund to sponsor small research projects or to match other grants. It has also developed a research strategy and submitted four projects to the Iowa Highway Research Board and the Federal Highway Administration for consideration in 2003:

- Field evaluation of compaction monitoring technology
- Synthesis of innovative testing technologies for geomaterials
- Embankment quality in unsuitable soils
- Optimization of materials in earthwork construction

The grading division of the Iowa chapter of the Associated General Contractors serves as liaison between the grading industry and the PGA.

The PGA completes CTRE’s structure for delivering integrated physical research on roadways. Coupled with the Center for Portland Cement Concrete Pavement Technology, the Bridge Engineering Center, and the asphalt laboratory, CTRE and ISU have the structure in place to become a national leader in roadway research.

Maze back at ISU

“Many of the students who work at CTRE and are studying transportation will end up working for consultants. I now understand what they are facing and can advise them on how to better prepare for their careers.”

Tom Maze has returned to Iowa State University and CTRE after three years with the consulting firm of Howard R. Green Company in St. Paul, Minnesota, giving him knowledge and insight into private industry that will help him both as a professor and as a transportation professional.

“Working in the private sector gave me a better appreciation of the process used in financial and project management.”

Maze also plans to continue work on research he helped initiate before his departure from CTRE.

Tom Maze