

# NEWS

## From GEORGIA TECH'S ENGINEERING EXPERIMENT STATION

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RADAR WARNING SYSTEM

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COULD IMPROVE BRIDGE SAFETY

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ATLANTA, GA....It's a foggy night on the sea as a freighter approaches a bay. Without the crew's knowledge, the ship enters the waterway dangerously off course. A collision with a bridge appears likely until radar signals warn the pilot to change course. He makes the necessary adjustments and brings his vessel into port safely.

Such happy endings aren't always possible today but they could become routine if a collision warning system concept proposed by Georgia Tech researchers is developed.

The Tech design calls for radar to be placed on or near a bridge, where it can monitor the passage of large vessels as they approach along a waterway. With the use of a built-in computer, the system could predict if a collision were about to take place.

"When a ship went off course in low visibility conditions, the radar could warn the boat captain to make steering corrections," says Gene Greneker of Tech's Radar and Instrumentation Laboratory. "If a collision appeared unavoidable, the warning system could predict the point of impact, warn motorists to get off the bridge, then shut the bridge down to oncoming traffic through a system of gates."

Such an early warning system would fill an obvious need in American transportation safety. Last May, 32 motorists died when a freighter struck the Sunshine <sup>sky</sup> Parkway Bridge over Tampa Bay. In the last decade, approximately 10 other bridge accidents have been recorded in the Southeast. The costs of

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these collisions are often disastrous.

"One bridge accident can result in as much as \$100 million in total damages," says Greneker, "especially when the cost of repairs and the economic impact of the disruption of a major transportation route are taken into account."

Greneker hopes the U.S. Department of Transportation will sponsor a program to build an experimental bridge warning system using the Sidney Lanier Bridge near Brunswick, Ga., as a test point. The cost of the project would be roughly \$1 million and researchers would need 3 1/2 to 4 years to perfect the radar unit. A warning system for a single bridge would be available at a probable cost of \$500,000 to \$700,000.

"That price doesn't seem so high," Greneker says, "when you consider the lives and the millions of dollars this system could save."

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