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States Show ITS Can Improve Incident Management

Five state chapters of ITS America provided information on incident management tactics in their states and the resulting benefits:

Georgia:

Georgia's statewide ITS program, NAVIGATOR, combines video monitoring and detection, data management with telecommunications technologies to verify and quickly respond to highway incidents such as crashes, stalls or debris.

This approach, together with the state's Highway Emergency Response Operator (HERO) program, contributed to the average 23-minute reduction in the duration of an incident. And the most integrated elements of NAVIGATOR, including the HERO unit, have a benefit-to-cost ratio of 2.3:1.

Equipped to handle anything from a flat tire or stall to a hazardous material spill or serious crash, HEROs assisted more than 33,000 motorists in 1998, with an average response time of less than 10 minutes.

The department's Motor Vehicle Emergency Response (MoVER) team is another essential part of the Incident Management program. It is comprised of senior Georgia DOT management officials. Once on scene, they assist other officials in assessing the situation, establishing communications and initiating incident clearance.

Also, NAVIGATOR informs the public via the system's 45 Changeable Message Signs, a Web site, a cable television broadcast, statewide traveler information kiosks and a free cellular telephone service.

An example of the success of the system is the <http://www.Georgia-Navigator.com> Web site, which recently received more than 330,000 page hits in one day.

Providing transportation officials, emergency response agencies, and the traveling public with accurate, reliable real-time information, NAVIGATOR was able to save the state more than \$44.6 million in 1997. Based on extremely conservative estimations, these savings are calculated for time alone. The benefits analysis does not consider the benefits or savings in fuel, maintenance or air quality. A more comprehensive study is currently being planned.

New York:

NYSDOT has a HELP incident management patrol program. We estimate that the benefit/cost ratio for the program exceeds 20:1. The program has produced a tremendous favorable reaction from the public, who are pleased that their tax dollars are being used to support a program that provides such direct assistance to them in a time of real need.

Maryland:

The most recent huge success that we had with ITS was when a truck carrying an oversize load struck a pedestrian bridge along I-695 during the evening rush hour, closing both loops of the Baltimore Beltway.

The operators at the statewide operations center saw the bridge collapse and immediately began notifying response personnel, and the media. Simultaneously, they programmed several Highway Advisory Radio stations and Dynamic Messages signs located in the Baltimore and Washington areas.

Montgomery County was alerted and it began to broadcast the information on its cable TV channel, and sent its airplane to the scene to monitor the scene, diversion routes and delays.

Transcom, in the New York metro area, also was alerted and word of what happened and the diversion routes were transmitted along the East Coast.

The Maryland State Police responded almost immediately and began to survey the site in record time. Portable Dynamic Message signs and static florescent signs were placed along the diversion route to assist motorists in getting around the incident.

The resulting efforts left us with virtually no delays on the Interstate system. The only delays were minor delays along the diversion route on the local street network.

As a result the entire bridge was removed and the site cleaned up in only 11.5 hours. The roadway was back to operating condition long before the morning rush hour.

Pennsylvania:

The Penn-Lincoln Parkway Service Patrol in the Pittsburgh metropolitan area operates during the morning and afternoon peak travel hours. An evaluation of its operation along approximately 32 kilometers (20 miles) compared data from the period January to April 1997 to incident data collected by the Pennsylvania State Police during the corresponding period in 1996. The data were analyzed to determine the effect of the service patrol on incident response times; incident clearance times; and incident-related congestion factors (i.e., vehicle-hours of delay, fuel consumption, and vehicle emissions). This evaluation yielded the following results: the service patrol reduced incident response times by approximately 8.7 minutes, cleared incidents approximately 8.3 minutes faster than prior to implementation and reduced hours of delay by approximately 547,000 hours per year. Total monetary savings resulting from implementation of the service patrol are approximately \$6.5 million per year. The public response to the service patrol is overwhelmingly favorable.

Washington:

ITS has played a big part in developing the Incident Management program in the state of Washington - from the fixed Variable Message Signs to the new partnering we have developed. ITS has opened both audio and visual lines of communication with all types of agencies. And the management of incident scenes is easier when the drivers of other vehicles understand what is happening.

With the WSDOT and the WSP working together, the duration of an incident has been reduced by 40 percent. The Incident Response Teams process documentation with computer software and use digital pictures for accident evaluation.

As ITS grows, so do the possibilities for Incident Management.