

# MOBILITY

**A**t FHWA, mobility means keeping America on the move. It's not just a word or a concept; it's a goal that we continue to work toward. And since we can't build our way out of traffic congestion, we're turning to technology to help us achieve that goal. For instance, we help to fund traffic control centers in large metropolitan areas that can track traffic flow, identify trouble areas and disseminate information to the traveling public so that travelers can avoid congestion.

Cities like Phoenix, AZ, Houston, TX, Atlanta GA, and Milwaukee, WI, have all installed these systems to provide information, such as incident (accident) alerting, congestion management and to promote safety and improve air quality. Many are staffed 24 hours a day, 7 days a week.



*Operators in Arizona Department of Transportation's Phoenix transportation management center share information on accidents with other agencies (foreground) and distribute travel conditions to travelers (background).*

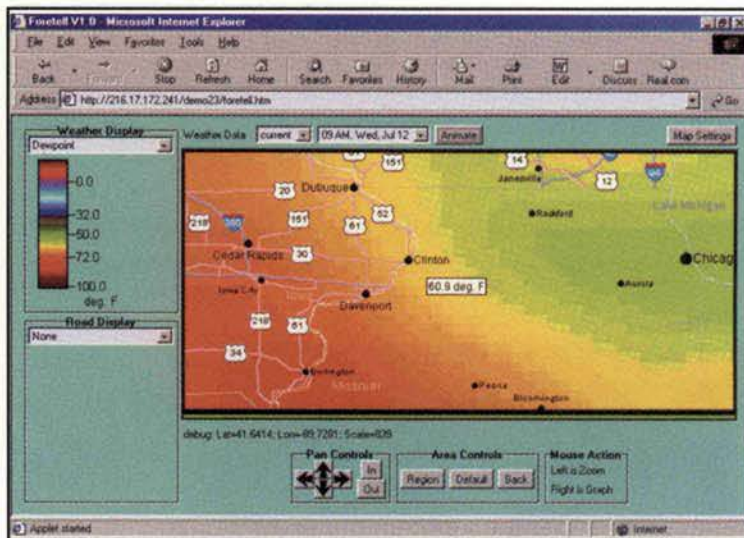
*An operator in Detroit's traffic management center relies on computers, video and wireless communications to improve traffic conditions on some of the nation's busiest roads.*



*The Michigan ITS Traffic Center in downtown Detroit monitors accidents and traffic conditions for 180 miles of the metro area's freeways.*







Improving America's mobility means addressing one of it's biggest impediments—the weather. While there is no shortage of weather information, there is a *real* shortage of road weather information about road conditions in any given location. FHWA, in partnership with a three-state consortium, is testing a road weather forecasting system known as FORETELL. The system collects, forecasts and distributes very specific road weather information invaluable to trucking professionals, commuters, transit operators and long-distance travelers. It can be accessed by authorized users in the trial three-state area through the Internet.

*FORETELL software allows access to specific geographic areas giving up-to-the-minute information on road conditions.*



Improving mobility by having a universal telephone number available nationwide for traveler information is another goal of the FHWA. To that end, FHWA and DOT petitioned the FCC to set aside a number that would allow travelers nationwide to access travel and traffic information on any area in the country from any point in the country. In July, 2000, the FCC agreed to the use of the 511 number for this purpose. The system will use Intelligent Transportation System technology that is already in place.

Congestion is often found at highway toll booths where all motorists had to stop to pay the required tolls until recently. Now, systems that use Intelligent Transportation Systems technology that FHWA helped develop allow motorists a non-stop journey through the toll booths, using a vehicle-mounted transceiver that communicates with one located at the toll facility. Each pass through the facility uses a payment from a pre-established account paid for by the motorist.



Photo courtesy of N.J. Turnpike Authority

*Virginia's Smart Tag (l.) and New Jersey's E-Z Pass (above) toll payment systems allow subscriber-motorists a non-stop journey through toll booths.*





*FHWA was responsible for developing and training state highway engineers to use more durable Portland Cement that reduces cracking, extends life and reduces life cycle cost.*

**T**he condition of the pavement which carries the nation's highway traffic can have a significant effect on the speed of a vehicle as well as the comfort of the vehicle's occupants. FHWA has promoted techniques to produce smoother pavements, including a promotion titled "Smoother Pavements Don't Have to Cost Any More Than Rough Pavements." And to make sure pavements are smooth, FHWA developed the guide specifications for the measurement of pavement smoothness using lightweight, laser inertial profilometers. In addition, the development of the Superpave system by the FHWA has helped more than 40 states extend their pavement life and reduce life cycle cost.

**Reducing congestion, providing traffic information, alternative transportation modes, and improving roadway conditions—these are some ways FHWA has helped to make a difference in keeping America on the move. And they're working.**

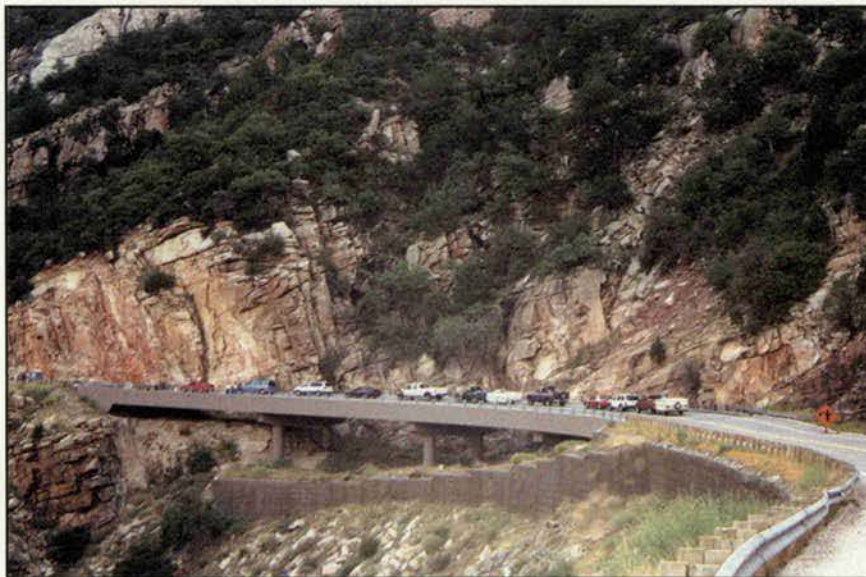


Where congestion is virtually unavoidable, FHWA is seeking alternative methods of transportation. It's even helping to fund ferryboat studies and trial water routes as alternatives to highway congestion.

For example, in Rhode Island, FHWA helped fund a trial ferry system that ran between Pawtucket and Providence, using state-of-the-art vessels with interiors that resembled those of modern jet aircraft. The service gives an alternative and comfortable mode of travel to busy and often-congested Interstate 95.



*Some Rhode Island travelers were offered a unique alternative to driving—a 21st-century ferryboat.*



FHWA has improved mobility in both Federal and tribal lands by multi-year programs of projects to improve access to and within these areas. Access to the very popular Mt. Lemmon recreational area near Tucson, AZ, was made previously by using a narrow, winding two-lane road. FHWA's Federal Lands Highway office, working in partnership with the state, improved the road, straightening out curves and widening lanes, while paying close attention to the natural environs through a concept known as context-sensitive reconstruction.

*A wider, safer tourist road to Arizona's Mt. Lemmon has improved access to the recreational area.*

Having information on road conditions is important but also having the right equipment and knowing the right techniques to combat winter storm conditions is equally important. FHWA and the states in the eastern part of the country sponsor an annual Eastern Winter Road Maintenance and Equipment Expo conference to showcase the latest in snow and ice treatments and equipment. Attendees often include highway personnel from some of the western states that have the heaviest snowfall in the country.

*The Eastern Winter Road Maintenance and Equipment Expo conference is a very popular event, with attendance exceeding 1,500.*

