

Intelligent Transportation Systems

THE FACTS



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WHAT ARE THE BENEFITS OF THE TRANSIT COMPONENTS OF ITS?

The transportation community has turned to the deployment of Intelligent Transportation Systems (ITS) to increase the efficiency of existing highway, transit, and rail systems. ITS uses advanced electronics and information technologies to improve the performance of vehicles, highways, and transit systems. ITS provides a variety of products and services in metropolitan and rural areas that include the following elements:

- traffic signal control
- freeway management
- transit management
- incident management
- electronic fare payment
- electronic toll collections
- multimodal traveler information
- emergency response management
- railroad grade crossing control

Of these, transit management and electronic fare collections exclusively relate to transit. Multimodal traveler information is shared with highways while the others are exclusively highways. As ITS moves from research, prototyp-

ing, and pilot projects into routine usage, decision-makers at the corporate, state, regional, and local levels seek reliable information about the contribution that ITS products can make toward meeting the demand for safe and efficient movement of people and goods.

Significant results have already been recorded in areas such as accident reduction, time savings, transit customer service, roadway capacity, emission reduction, fuel consumption, and vehicle stops. And this is only the beginning.

Greater benefits are predicted with more extensive deployment of more mature products. The Intelligent



Transportation Infrastructure (ITI), recently initiated by the Secretary of Transportation and introduced as "Operation Timesaver," will electronically link the individual systems, sharing data so that better travel decisions encompassing all





modes can be made. Attention is concentrated on traffic detection and monitoring, communications, and control systems. This unprecedented information integration forms the heart of ITS.

ITS SAVES TIME, SAVES MONEY, AND SAVES LIVES

Across the country, state and local governments are realizing that an investment in ITS pays big dividends of savings in time, money, and quality of service to customers. Following are some examples of how ITS and ITS are now helping transit.

QUALITY OF LIFE SAVINGS

+ New Jersey Transit's automated voice response telephone information system has reduced caller's waiting time from 85 seconds to 27 seconds and has reduced the caller hang-up rate from 10% to 3%. Monthly calls have increased by 40,000 over the prior year.

+ In Denver, when a bus passenger had a seizure, the bus driver, using CAD AVL, was able to notify emergency response personnel of the incident and its location. An ambulance arrived in under 8 minutes.

+ Bus operators in transit systems with AVL report a greatly increased feeling of security with the silent alarm, listen-in feature, and rapid response capability that the system provides.

TIME SAVINGS

+ Winston-Salem Transit Authority reports that their AVL CAD system has decreased paratransit passenger waiting time by 50%.

+ In Kansas City, response time to emergencies was cut from four minutes to one minute.

+ The Mass Transit Administration of Maryland reported a 23% increase in on-time performance in Baltimore with AVL-equipped test buses. AVL will soon be system-wide.

+ "The Hamilton (Ontario, Canada) Street Railway Company's Automatic Vehicle Location system increased schedule adherence from 82% to 89%.

+ Milwaukee reports a 28% decrease in the number of buses more than 1 minute behind schedule.

MONEY SAVINGS

+ The New York City Transit Authority estimates that its new MetroCard system will save \$70 million per year from fare evasion in addition to increasing ridership revenues by \$49 million.

+ "In Kansas City, implementation of a transit management system helped transit officials reduce annual operating costs by \$400,000.

+ "New Jersey transit estimates a savings of \$2.7 million in reduced handling costs of fare media.

+ "The stored value Smart Card being implemented in Atlanta will reduce MARTA's cash handling costs (\$3 million annual budget) significantly.

FIND OUT WHAT ITS CAN DO FOR YOU

If you're not exploring the advantages of investing in the transit component of ITS, you're missing out on the future of transportation. For more information, contact the FTA or Regional Office nearest you.