

SUMMARY FINDINGS, MASSACHUSETTS HIGHWAY DEPARTMENT INDEPENDENT EVALUATION OF SMARTRAVELER OPERATIONAL, TEST

Potential Impact of **SmarTraveler** on Congestion and Air Pollution

SmartRoute Systems is now in the second year of operation of **SmarTraveler**, a fully-deployed, area-wide Traveler Advisory Telephone Service (TATS) in the Metropolitan Boston area. **SmarTraveler** began as the first Field Operational Test funded by FHWA under ISTEA of 1991. Preliminary findings of the independent evaluation of **SmarTraveler** (conducted for the Massachusetts Highway Department and recently presented in a paper to IVHS America) have demonstrated that **SmarTraveler** has extraordinary potential to influence traveler behavior, thereby reducing congestion and air pollution. While teaching people to learn to use an ATIS is a considerable challenge in behavior modification, the research is clear that use of the ATIS, increasing over time, is a powerful tool for changing the route, time, or mode of drivers' travels. Following are highlights of the evaluation contractor's survey of **2,000** users of the **SmarTraveler** TATS:

- *48% of respondents reported the information they received during the particular call about which they were being questioned, had a direct influence on their travel decision-making.*
 - *28% reported making some kind of change in their travel behavior.*
 - *14% reported changing the time of departure.*
 - *12% reported using a different route.*
 - *2% reported canceling the trip.*
 - *1% reported changing route and time.*
 - *20% indicated they used the information to choose between two or more relatively equal alternate routes.*
- *Most of the remaining callers in some way used the information they received to verify that their preferred route would be viable.*
- *8% reported they contacted others to indicate that they would be delayed, based on the information they received.*

(The Massachusetts Highway Department evaluation of **SmarTraveler** TATS substantially confirmed certain key points of research conducted by SmartRoute Systems for an Early Findings Report, evaluating the impact of **SmarTraveler** on users' route, time or mode of travel, Using this data, SmartRoute Systems retained Tech Environmental, Inc., of Cambridge, Massachusetts at the recommendation of the Massachusetts Environmental Protection Agency, to assess the potential impact on air pollution of the **SmarTraveler** TATS, in the Metropolitan Boston Non-Attainment Area. Based on projections of increased use of the **SmarTraveler** service, the Tech Environmental report concluded that widespread **use of SmarTraveler can** account for the elimination of nearly one-half ton of Volatile Organic Compounds (VOC) daily. This accounts for 1/2 percent of the total required reduction in VOC from the base year 1990 to the target compliance year of 1999, **and almost 7% of the projected requirement from new Emission Reduction and Highway Operations, Transportation Control Measures (TCM) that remain to be implemented.**)

User Satisfaction with **SmarTraveler**

The Massachusetts Highway Department's independent evaluation of the **SmarTraveler** TATS demonstrated conclusively that users of **SmarTraveler** are very satisfied with the service, and find it remarkably valuable in their day-to-day travel:

- *97% of users expected to use the service again.*
- *85% of users rated the service "8 " or better on a scale of "10."*
- *68% reported reduced frustration as a consequence of using the service.*
- *67% indicated that SmarTraveler provided all types of information that they desired from a traveler information service.*
- *63% reported the ability to avoid traffic problems.*
- *59% reported that they saved time.*
- *51% reported that they were aided in arriving on time.*