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**HOUSTON *SMART COMMUTER* ITS OPERATIONAL TEST —**

**FY 1995 STATUS REPORT**

by

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Research Report 1985-1  
Research Study Number 7-1985

Research Study Title:  
Houston *Smart Commuter* ITS Operational Test Project Management Assistance and  
Study Design, Data Collection, Monitoring, and Local Evaluation Program

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## IMPLEMENTATION STATEMENT

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Metropolitan areas in Texas and throughout the country are facing major problems related to traffic congestion, air quality concerns, and declining mobility. Intelligent transportation systems (ITS) and other advanced technologies are being used in many areas to help address some of these issues. The Houston *Smart Commuter* Operational Test represents one such effort.

The Houston *Smart Commuter* Operational Test is evaluating the potential for gaining more efficient use of major travel corridors through greater utilization of high-occupancy vehicle (HOV) commute modes, shifts in travel routes, and changes in time of travel through the application of innovative approaches using advanced technologies. Commuters who have quick and easy access to relevant, accurate, and up-to-date information on existing traffic conditions, bus routes, bus schedules, how to use the bus, and instant ridematching services in their home and work place may be more likely to use public transportation and other high-occupancy commute modes. For example, the travel time savings and travel time reliability offered by the Houston HOV lanes provide incentives for changing travel modes. Individuals may alter their travel time or travel route based on this information.

The results of the Houston *Smart Commuter* ITS Operational Test will be of benefit to TxDOT, METRO, FHWA, FTA, and other groups interested in utilizing ITS technologies to encourage HOV and alternative commute modes. This report provides a summary of the activities accomplished on the project in FY 1995 and the anticipated schedule for FY 1996.



## **DISCLAIMER**

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The contents of this report reflect the views of the authors who are responsible for the findings and conclusions presented herein. The contents do not necessarily reflect the official views or policies of the Texas Department of Transportation. This report does not constitute a standard, specification, or regulation, and is not intended for construction, bidding, or permit purposes.





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## SUMMARY

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The Houston *Smart Commuter* Intelligent Transportation Systems (ITS) Operational Test is one of the federally sponsored advanced technology projects currently being conducted in the United States. The Houston *Smart Commuter* Operational Test is being funded and implemented through the joint efforts of the Metropolitan Transit Authority of Harris County (METRO), the Texas Department of Transportation (TxDOT), the Federal Highway Administration (FHWA), and the Federal Transit Administration (FTA). The Texas Transportation Institute (TTI), a part of The Texas A&M University System, assisted with the development of the operational test concept design and is responsible for conducting the local evaluation and providing ongoing project support.

The Houston *Smart Commuter* Operational Test is evaluating the potential for gaining more efficient use of major travel corridors through greater utilization of high-occupancy commute modes, shifts in travel routes, and changes in time of travel through the application of innovative approaches using advanced technologies. Commuters who have quick and easy access to relevant, accurate, and up-to-date information on existing traffic conditions, bus routes, bus schedules, how to use the bus, and instant ridematching services in their home and work place may be more likely to use public transportation and other high-occupancy commute modes. The travel time savings and travel time reliability offered by the Houston HOV lanes add further incentives for changing travel modes. In addition, individuals may alter their travel time or travel route based on this information.

The *Smart Commuter* Operational Test includes two different, but compatible, components to enhance use of the Houston HOV facilities. These components have been developed and funded as multi-agency projects. The first component of the *Smart Commuter* Operational Test, the bus component, focuses on the traditional suburb-to-downtown travel market in the I-45 North corridor. This element focuses on encouraging a mode shift from driving alone to riding the bus, changing travel times, and shifting travel routes. These changes in travel decisions will result from the provision of current traffic and transit information to individuals in their home and work place through state-of-the-art technologies. The second component focuses on the suburb-to-suburb travel market in the I-10 West corridor to the Post Oak/Galleria area. This corridor, which is more difficult to serve with traditional, regular-route bus service, provides the opportunity to test the use of a comprehensive employer-based carpool matching service. This system will include the ability to provide real-time carpooling and also to encourage an increase from two to three person carpools, which is the requirement on the Katy HOV lane during the morning and afternoon peak hours.

The report summarizes the activities conducted on the Houston *Smart Commuter* ITS Operational Test in FY 1995. The major activities included finalizing and issuing the request for technical proposals for the information delivery system, developing information brochures, monitoring the delivery of the new METRO rideshare computer and assessing techniques to utilize it in the I-10 West component, and coordinating the local and national evaluation. This report also presents the anticipated activities and schedule for FY 1996.



# CHAPTER ONE

## Introduction

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The Houston *Smart Commuter* Intelligent Transportation Systems (ITS) Operational Test is one of the federally sponsored advanced technology projects currently being conducted in the United States. The Houston *Smart Commuter* Operational Test is being funded and implemented through the joint efforts of the Metropolitan Transit Authority of Harris County (METRO), the Texas Department of Transportation (TxDOT), the Federal Highway Administration (FHWA), and the Federal Transit Administration (FTA). The Texas Transportation Institute (TTI), a part of The Texas A&M University System, assisted with the development of the operational test concept design and is responsible for conducting the local evaluation and providing ongoing project support.

The Houston *Smart Commuter* Operational Test began in 1990. Since that time a number of activities have been accomplished. These include the completion of a preliminary feasibility study, development of a concept plan and proposal, securing funding for the first phase, and initiating the operational test. Interagency agreements between the various agencies have also been completed.

This document summarizes the activities conducted on the operational test during Fiscal Year (FY) 1995, which represents the period from September 1994 to August 1995. It also outlines those activities anticipated in FY 1996. The remainder of the report is divided into four sections to accomplish this objective. Chapter Two provides an overview of the Houston *Smart Commuter* Operational Test. The major elements and the organizational structure for the operational test are summarized. Chapter Three describes the major activities and accomplishments completed during FY 1995. The status of the I-45 North bus component is presented first followed by the I-10 West carpool component. Chapter Four presents the anticipated major work activities and schedule for FY 1996



## CHAPTER TWO

### Overview of the Houston *Smart Commuter* Operational Test

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This chapter provides an overview of the development of the Houston *Smart Commuter* ITS Operational Test. The background of the project is summarized first, followed by a description of concepts being tested. The organizational structure for the operational test and the roles and responsibilities of the different agencies are also outlined. Chapter Three summarizes the various activities completed during FY 1995 and the current status of the various components.

#### Background

Like many major metropolitan areas, traffic congestion continues to be a significant problem in the Houston area, especially during the morning and afternoon peak-periods. Although recent improvements in the transportation system have reduced congestion levels in some corridors, Houston ranks as one of the top ten most congested cities in the country (1). The annual cost of this congestion, based on the costs associated with time delay and fuel, is estimated to be approximately \$1.38 billion (1). Air quality and environmental issues are also major concerns. Houston is currently in severe violation of the Environmental Protection Agency (EPA) standards for ozone emissions. In order to meet requirements of the 1990 Clean Air Act Amendments, the area must develop measures to control growth in vehicle miles of travel and initiate other programs.

In response to the combination of increasing demands on the system and limited resources, the agencies responsible for transportation in the Houston area have often utilized innovative approaches to address mobility and congestion problems. The regular development and publication of a multimodal Regional Mobility Plan, the extensive system of high-occupancy vehicle (HOV) lanes, park-and-ride lots, transit centers, and express bus services, the expansion of the freeway and toll road system, and the development of the Greater Houston Transportation and Emergency Management Center (Houston TranStar) represent just a few of the approaches that are being utilized in Houston.

The development of these projects has occurred through the coordinated and cooperative efforts of TxDOT, METRO, the City of Houston, Harris County, the Houston-Galveston Area Council (HGAC), and others. TTI has provided technical assistance on many of these projects. In preparing to move Houston forward into the 21st century, these agencies continue to work together to ensure that the transportation system will meet the needs of future generations. Incorporating advances in technology, such as those offered through the application of Intelligent Transportation Systems (ITS), represents an important part of this overall approach.

The Houston *Smart Commuter* ITS Operational Test is a further example of this multi-agency approach. The development of the Houston *Smart Commuter* ITS Operational Test began in 1990. A planning and feasibility study funded by FTA, METRO, and TxDOT, was conducted by TTI in 1990 and 1991. This study examined the concepts behind the project, analyzed available literature on commuting behavior and mode choice selection, and examined the market potential for real-time traffic, transit, and rideshare information through the use of focus groups and surveys. Also assessed were potential technologies for providing the real-time traffic and transit information to individuals in their home and work place. A series of reports documenting the different elements of the study are available (2, 3, 4, 5, 6). The final report, *The Houston Smart Commuter ITS Demonstration Project: Concept Design and Implementation Program Outline* (6), summarizes the major elements of the operational test and contains a preliminary implementation program, budget, and evaluation plan for the project.

This report formed the basis for federal funding requests by METRO and TxDOT to FTA and FHWA, respectively. A total of \$5 million has been committed for the first phase of the multi-year \$17 million Houston *Smart Commuter* ITS Operational Test. Both METRO and TxDOT have committed \$1,250,000 to fund the first phase; FTA has provided \$500,000 in funding, and FHWA has provided \$2,000,000. The concepts being tested in the *Smart Commuter* project are described next, followed by a more detailed discussion of the roles and responsibilities of the different groups involved in the project.

## **Houston *Smart Commuter* Concepts**

The Houston *Smart Commuter* Operational Test is evaluating the potential for gaining more efficient use of major travel corridors through greater utilization of high-occupancy commute modes, shifts in travel routes, and changes in time of travel through the application of innovative approaches using advanced technologies. Commuters who have quick and easy access to relevant, accurate, and up-to-date information on existing traffic conditions, bus routes, bus schedules, how to use the bus, and instant ridematching services in their home and work place may be more likely to use public transportation and other high-occupancy commute modes. The travel time savings and travel time reliability offered by the Houston HOV lanes add further incentives for changing travel modes. In addition, individuals may alter their travel time or travel route based on this information.

The *Smart Commuter* Operational Test includes two different, but compatible, components focusing on enhancing use of the Houston HOV facilities. These facilities have been developed and funded as multi-agency projects. Figure 1 highlights the major freeway and HOV lane facilities in Houston.

The first component of the *Smart Commuter* Operational Test, the bus component, focuses on the traditional suburb-to-downtown travel market in the I-45 North corridor. This element focuses on encouraging a mode shift from driving alone to riding the bus, changing travel times,



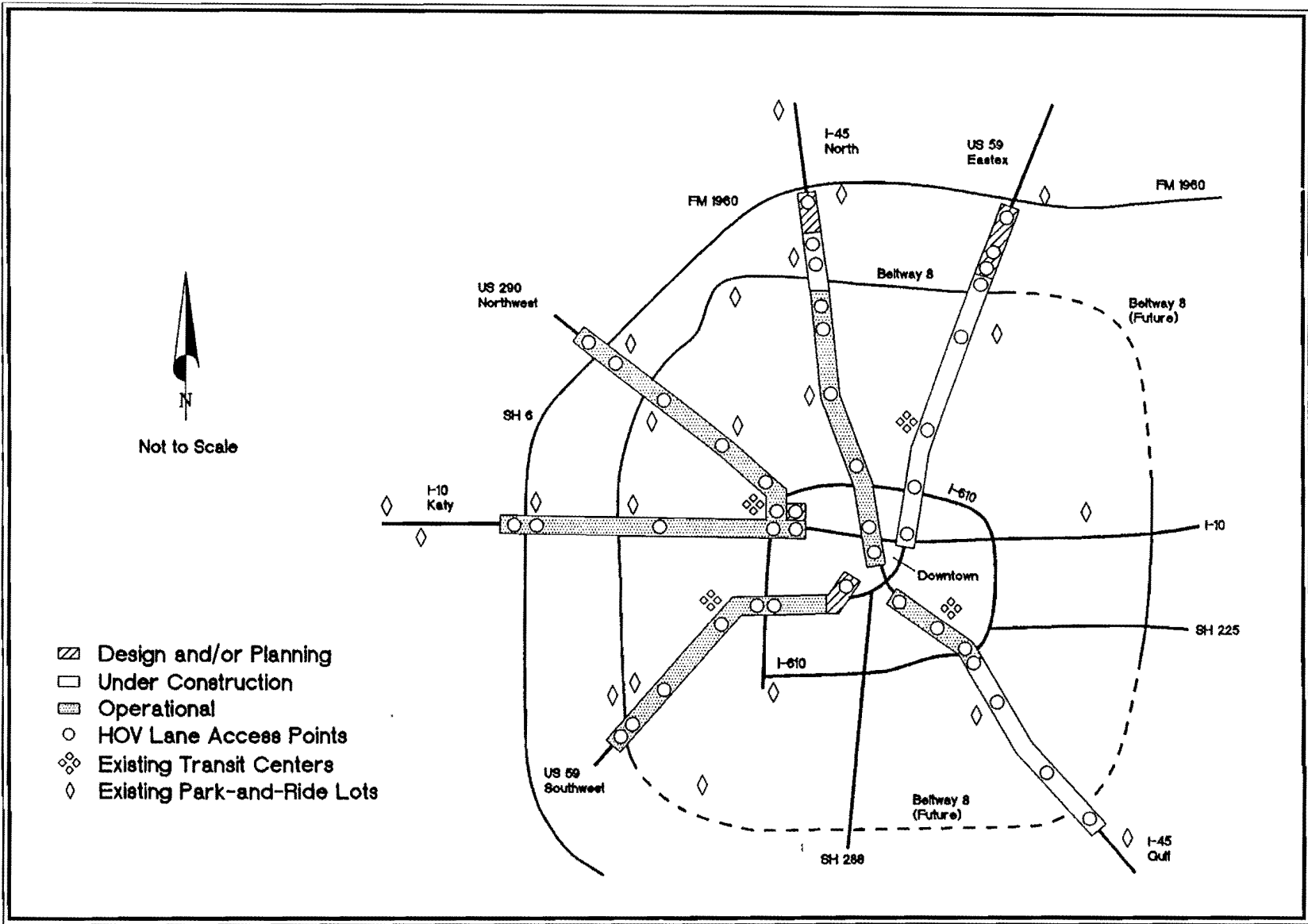


Figure 1 — Houston Freeway and HOV Lane System

and shifting travel routes. These changes in travel decisions will result from the provision of current traffic and transit information to individuals in their home and work place through state-of-the-art technologies. Changes in travel behavior are being evaluated by comparing the sample group with a control group that does not receive the current traffic and transit information device.

The second component focuses on the suburb-to-suburb travel market in the I-10 West corridor to the Post Oak/Galleria area. This corridor, which is more difficult to serve with traditional, regular-route bus service, provides the opportunity to test the use of a comprehensive employer-based carpool matching service. This system will include the ability to provide real-time carpool matching and also to encourage an increase from two to three person carpools, to meet the current requirement on the Katy HOV lane during the morning and afternoon peak hours.

The two components of the *Smart Commuter* Operational Test, the advanced traffic and transit information in the I-45 North corridor and the comprehensive employer-based instant rideshare matching service in the I-10 West corridor, are being implemented and evaluated over a five year period. As noted, funding has been secured for the first phase of the operational test which includes finalizing the local evaluation plan, selecting the technology to provide the real-time information to individuals in their home and work place, implementing the operational test, and completing the first six month and first year evaluation.

The *Smart Commuter* Operational Test represents the first major test of the use of ITS technologies to encourage an increase in average vehicle occupancy. It provides an opportunity to test the ability to collect, process, and transmit current traffic and transit information and instant rideshare matching services to individuals in their home and work place through a variety of advanced technologies. The *Smart Commuter* Operational Test also provides an opportunity for highway and transit interests to work together to better manage the overall transportation system through the innovative application of ITS technology, enhanced information, and improved services.

### **Organization of the Houston *Smart Commuter* ITS Operational Test**

The development of the Houston *Smart Commuter* ITS Operational Test has been accomplished through the joint efforts of METRO, TxDOT, FHWA, FTA, HGAC, and TTI. This multi-agency coordinated approach is also being used to implement, monitor, and evaluate the operational test. This section outlines the overall organization of the operational test and the roles and responsibilities of the different agencies.

METRO, TxDOT, FHWA, and FTA have agreed on the overall organization structure for implementing and evaluating the Houston *Smart Commuter* ITS Operational Test. METRO is providing the overall project management responsibility for the operational test and has appointed a project manager. TxDOT is involved throughout the project and is coordinating with METRO on key activities. FTA and FHWA are providing federal oversight. TTI is responsible for the local evaluation and ongoing technical assistance. The roles of each agency are highlighted next.

**METRO.** Houston METRO is responsible for the overall management of the operational test. METRO has appointed a project manager and is providing other support functions for the project. METRO has received funding from FTA for a portion of the project and has executed an agreement with TxDOT for the pass through of funding from FHWA.

**TxDOT.** TxDOT is involved in all aspects of the operational test. TxDOT has received funding from FHWA for a portion of the project and has executed an agreement with METRO to pass these funds through. TxDOT has also been responsible for developing the real-time traffic information system that forms a major part of the I-45 North component.

**U.S. DOT — FHWA and FTA.** FHWA and FTA representatives are providing federal oversight and guidance throughout the operational test and participate in periodic meetings as appropriate. Although FTA has the overall federal monitoring responsibilities for this operational test, these responsibilities are being shared and coordinated with FHWA, especially the FHWA Austin office.

**TTI.** TTI is responsible for conducting the local evaluation of the operational test under contract to METRO and TxDOT. This includes finalizing the study design and local evaluation program (7), and completing the ongoing data collection, monitoring, and evaluation activities. TTI is also responsible for coordinating the local evaluation with the national evaluation being sponsored by FTA. The Volpe National Transportation Systems Center is administering the national evaluation. The Volpe Center is using Multisystems to conduct the national evaluation of the Houston *Smart Commuter* ITS Operational Test. TTI is also providing ongoing technical assistance for the project.



## CHAPTER THREE

### FY 1995 Accomplishments and Current Project Status

A number of activities were completed on the various elements of the Houston *Smart Commuter* Operational Test during FY 1995. These included initiating the request for technical proposals (RFTP) process for the in-home and in-office device for the I-45 North component, coordinating the I-10 West component with the delivery of a new METRO rideshare computer, developing marketing and recruitment information, coordinating with the national evaluation, and other related activities. This chapter highlights the major accomplishments and activities completed on the operational test during FY 1995.

#### **I-45 North Bus Component**

Activities completed on the I-45 North Bus component of the Houston *Smart Commuter* Operational Test during FY 1995 focused primarily on developing and issuing the RFTP for the in-home and in-office information device. Information materials and brochures were also developed for this portion of the project. These activities are summarized next.

#### *Information Delivery System*

As noted previously, METRO has overall project management responsibilities on the Houston *Smart Commuter* Operational Test. Thus, the procurement of the in-home and in-office information delivery system followed METRO policies and procedures. A joint working group of METRO, TxDOT, and TTI representatives developed an initial draft RFTP in 1993 and 1994. This document was modified to meet the METRO procurement requirements and to provide more flexibility on potential technologies.

METRO determined that a two-step procurement process was the most appropriate for use with the project. Under this procurement method, the first step involves the request, submission, and evaluation of technical proposals to determine if the proposer meets the minimum requirements outlined in the RFTP and if the proposer is qualified to perform the work. In the second step, METRO issues formal invitations to bid only to those firms that successfully completed the first step and that are, in METRO's opinion, technically and financially capable of performing the required work.

METRO issued the RFTP for the information delivery system on March 13, 1995. The RFTP was advertised in local and national trade publications, magazines, and newspapers. In addition, a variety of mailing lists were used to notify potential bidders of the project.

A pre-proposal meeting was held on March 30, 1995, at the Interim Traffic Management Center. METRO staff reviewed the RFTP at the meeting, and potential bidders had the opportunity to ask questions concerning the project. A period for written questions provided

additional opportunities for vendors to clarify specific issues. A letter to all vendors attending the pre-proposal conference provided answers to these questions.

METRO received four proposals in response to the RFTP. The following principal and support firms submitted proposals:

- Loral Space Information Systems — Principal  
Software Decisions Inc., Houston  
Fastlane Traffic, San Francisco  
METRO Traffic Control, Houston  
Etak Inc., Menlo Park, CA
- TRW — Principal  
S&B Infrastructures, Houston  
Fastlane Traffic, San Francisco  
Celebration Computer Systems, Houston  
Software Decisions, Inc.  
A&W Couriers, Houston
- Transportation Management Solutions (subsidiary of E-Systems) — Principal  
S&B Infrastructures, Houston  
Celebration Computer Systems, Houston  
Kessman & Associates, Houston  
Sayers Computer Source, Scottsdale, AZ  
A&W Couriers, Houston
- On-Line Data Products and Teleride Sage — Joint Venture

The proposal from On-Line Data Products and Teleride Sage did not meet all of the specifications in the RFTP and was eliminated from further consideration. The three remaining teams made formal presentations on their proposals to METRO and TxDOT staff. The three teams were then invited to submit formal bids on the information service delivery system. METRO and TxDOT staff evaluated the final bids. It is anticipated that the recommendation on the selected vendor will be presented to the METRO Board of Directors for action in November 1995.

#### *Informational Material and Participant Recruitment*

An informational brochure was developed and printed on the I-45 North component of the *Smart Commuter* project. This brochure provides an overview of the project and contains more specific information on the employers and employees needed to participate in the test. The brochure is being used to help in the recruitment of participants and to provide general information on the project.

Initial meetings were held during the year with downtown employers, businesses, and agencies. The purpose of these meetings was to start building an awareness of the *Smart Commuter* project. Serious recruitment of participating employers and employees was delayed until after the informational delivery system contract has been awarded and a realistic implementation schedule can be developed.

## **I-10 West Carpool Component**

The major activities completed on this element of the Houston *Smart Commuter* Operational Test focused on coordinating the delivery and testing of METRO's new rideshare computer and the development of a draft informational brochure. This section summarizes these activities.

### *New METRO Rideshare Computer*

METRO was in the process of procuring a new rideshare matching computer when the *Smart Commuter* Operational Test was initiated. Rather than developing or purchasing another new system for the *Smart Commuter* project, it was decided to determine if the new METRO system was capable of performing the functions needed for the operational test.

It was originally anticipated that the new rideshare computer, which was designed and developed by GDE Systems, would be delivered in late 1994. Due to various problems, the system was not provided to METRO until May of 1995. METRO and GDE then went through the acceptance testing period. A few problems had to be addressed during this period, and additional issues are still being resolved. The basic operating characteristics of the system are described next.

Like all rideshare matching systems, the names, addresses, work hours, and other information on potential carpoolers and vanpoolers are entered into the database. The system then selects possible carpool and vanpool matches according to home addresses and work locations. The system can also plan a route for a carpool or vanpool. The system accommodates multiple subdatabases so that individuals from a single company — or a group of cooperating companies — are matched only with co-workers. It can also draw matches from a community-wide database, if requested. Vanpools must be drawn from a single database.

The system operates quickly, with eight matches performed within 6 to 10 seconds. The match information is displayed graphically on a map and in a table format with names and addresses. The system can also generate letters and mailing envelopes to rideshare participants.

Meetings were held in 1995 with METRO, GDE Systems, and TTI staff to discuss the capabilities of the new rideshare system and its use in the *Smart Commuter* Operational Test. There was general consensus that the system could be used in the initial phases of the operational test with a live operator. Additional technologies and system enhancements will be needed for a voice activated, automated system, however.

For the purposes of the *Smart Commuter* Operational Test, a database must be established for *Smart Commuter* participants, similar to other corporate databases currently in the system. The *Smart Commuter* database, however, will contain additional information for each participant to facilitate eventual real-time rideshare matching. TTI developed a draft registration form for the *Smart Commuter* system.

Currently, GDE and METRO are working to resolve problems with the Landata map that forms the basis for the operation of the system. The problems are expected to be resolved by mid-November. Once these issues have been corrected, development of the *Smart Commuter* applications can begin.

### *Informational Brochure*

An informational brochure for the I-10 West real-time carpooling part of the project has been drafted and is being reviewed and revised by TTI and METRO staff. The brochure targets commuters on the I-10 West corridor, whether they currently drive alone or carpool. For the motorists, the brochure describes how carpooling can be a convenient full-time or occasional alternative. For those already carpooling, the brochure describes the ability of the *Smart Commuter* real-time rideshare system to provide additional passengers.

### **Ongoing Coordination of the Local and National Evaluations**

TTI is responsible for conducting the local evaluation of the Houston *Smart Commuter* Operational Test. A detailed local evaluation program, prepared in 1993, will guide the data collection, monitoring, and evaluation of the operational test (7). The FTA is also sponsoring a national evaluation of the *Smart Commuter* project. This assessment is part of the national evaluation of Advanced Public Transportation Systems (APTS) program. The Volpe Center is responsible for the national APTS evaluation program and is using consultants for much of the work.

The national evaluation of the Houston *Smart Commuter* Operational Test began in 1993. Meetings were held with representatives from TxDOT, METRO, TTI, FTA, FHWA, Volpe Center, and SAIC and Castle Rock Consultants, Inc. — the consulting firms responsible for the national evaluation. Castle Rock Consultants, Inc. developed a preliminary national evaluation plan after these meetings. TTI took the lead in reviewing the draft and coordinating the local evaluation with the national effort.

In 1994, the national evaluation program was subject to a recompetition, and a change occurred in the consulting firms conducting the national evaluation of the Houston *Smart Commuter*. As a result of the recompetition, Cambridge Systematics and Multisystems took over for SAIC and Castle Rock Consultants, Inc. A meeting was held in August of 1994 to initiate this transition. TTI worked with the new consultants during 1994 and 1995 to coordinate the local review of the revised national evaluation plan and to coordinate the national and local evaluation efforts.



## CHAPTER FOUR

### Anticipated Future Activities

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The previous chapter presented a summary of the activities conducted on the Houston *Smart Commuter* Operational Test during FY 1995 and the current status of the project. This chapter briefly summarizes the anticipated schedule for FY 1996 and future activities. The activities and schedule for the I-45 North component are presented first, followed by the I-10 West component.

#### **I-45 North Bus Component**

The major activities anticipated in FY 1995 on the I-45 North portion of the Houston *Smart Commuter* Operational Test include completing the procurement process for the in-home and in-office information delivery system devices, testing the devices, recruiting the test and control group participants, completing the before data collection, and initiating the operational test. Each of these items is briefly described next, and the anticipated schedule is presented in Table 1.

- **Complete Procurement of Information Delivery System.** It is anticipated that the METRO Board of Directors will approve the selected vendor for the information delivery system in November. METRO will then negotiate a final contract with the vendor. Once this contract has been signed, the design and development of the system should begin. These activities will take approximately six months.
- **Test Information Delivery System.** This step will conduct the performance testing of the information delivery system. Activities include testing the hardware and software components, and general acceptance of testing. This task will take approximately three months.
- **Recruit Test and Control Group Participants.** Recruitment of employers and employees to participate in the I-45 North bus component will begin when the information delivery system is close to delivery and testing. It is important not to start the recruitment process too soon before the information delivery system is available, or employers and employees may lose interest. Updating the informational brochure may be needed. The contacts made in 1994 will be used in this effort. It is anticipated that the recruitment process will take approximately four months.
- **Complete Before Data Collection.** The before data collection will begin approximately four months before the anticipated start of the operational test. The measures of effectiveness data collection activities and procedures outlined in the local evaluation plan will guide this effort. The before data collection activities will include

travel surveys for the test and sample groups, current bus ridership and HOV lane information, and other relevant information.

- **Initiate the Operational Test.** It is anticipated that the I-45 North component of the operational test will begin in August or September of 1996. Deployment of the information delivery system to the approximately 700 participants will occur over a two to four week period.

**Table 1 — Anticipated FY 1996 Schedule for I-45 North Component\***

Activity	Schedule
METRO Board Action Awarding Contract for Information Delivery System	November 1995
Finalize Contract with Vendor and Information Delivery System Development	December - March 1996
Initial Functional Test and Installation	April - June 1996
Test Information Delivery System	June - August 1996
Recruit Participants	April - July 1996
Before Data Collection	April - July 1996
Initiate Operational Test	August - September 1996

**\*Schedule based on November approval by METRO Board**

### **I-10 West Carpool Component**

The major activities anticipated to be completed in FY 1996 on the I-10 West component include enhancing the new METRO rideshare computer, recruiting the initial test companies and employees, completing the before data collection, and initiating the operational test. Each of these items is summarized next. Table 2 presents the anticipated schedule for these activities.

- **Enhance METRO Rideshare Computer.** METRO and TTI staff will work to develop the necessary revised rideshare sign-up forms and enhancements to the METRO rideshare computer to accommodate the demands of the operational test. The exact operations of the I-10 West carpool program will also be finalized during this step. The estimated schedule for these activities is approximately four months.

- **Recruit Initial Test Companies and Employees.** One to three large companies in the Post Oak/Galleria area will be recruited to participate in the initial phase of the I-10 West project. Employees within these companies will then register for the real-time matching system. Information on these individuals will be entered into the database, and the operation of the system will be tested. It is anticipated that these activities will take approximately four months.
- **Complete Before Data Collection.** The before data collection will begin approximately four months before the anticipated start of the operational test. The measures of effectiveness data collection activities and procedures outlined in the local evaluation plan will guide this effort. The before data collection activities will include travel surveys for the test and sample groups, current bus ridership and HOV lane information, and other relevant information.
- **Initiate Operational Test.** It is anticipated that the I-10 West component of the operational test will begin in April or May of 1996.

**Table 2 — Anticipated FY 1996 Schedule for I-10 West Component**

Activity	Schedule
Enhance METRO Rideshare Computer	June - September 1996
Recruit Initial Test Companies and Employees	June - October 1996
Complete Before Data Collection	June - October 1996
Initiate Operational Test	September 1996



## REFERENCES

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