



U.S. Department of
Transportation

TRANSIT PLANNING AND RESEARCH PROGRAMS

FISCAL YEAR 1996
PROJECT DIRECTORY
December 1996



**Federal Transit
Administration**

Office of Research, Demonstration and Innovation

New Rail Vehicles and Infrastructure

Project Title: **Inertial Navigation Tracking and Control Systems in Urban and Rural Areas**

Project Number: PA-26-0007-03

Funding: \$489,100

Start Date: July 1996

Estimated Completion: July 1997

Grantee/Contractor: Transit Safety Research Alliance
2100 Wharton Street
Pittsburgh, Pennsylvania 15203

Principal Investigator: Dr. Ted C. Giras

Phone: 412/688-2605

FAX: 412/934-2002

FTA Project Manager: Irving Chambers, TRI-20

Phone: 202/366-0238

FAX: 202/366-3765

Description: This project enables the Transit Safety Research Alliance to produce an onboard transit vehicle positioning system that will identify and automatically locate rail and rubber tire vehicles. The project will demonstrate through studies and experimental testing the safety, economic and environmental benefits of deploying inertial navigation tracking and control systems in urban and rural environments. It will also demonstrate an integrated onboard transit intermodal positioning system (TIPS) with bi-directional communication capabilities operating in real-world bus and rail transit environments. TIPS system technology will be demonstrated on a single vehicle working with a bi-directional communication system to a wayside central control facility. TIPS electronically records vehicle positioning information and calculates the vehicle's position. Ultimately, the project will determine the precise location of buses by sensing and interpreting the various motion of these vehicles, as well as determine the velocity and speed of buses. Overall, TIPS is intended to be an integrated, standardized configuration of a vehicle positioning system that can be customized for the varied operations of urban and rural, bus and rail transit operations.





US Department
of Transportation

**Federal Transit
Administration**

Administrator

400 Seventh St., S.W.
Washington, D.C. 20590

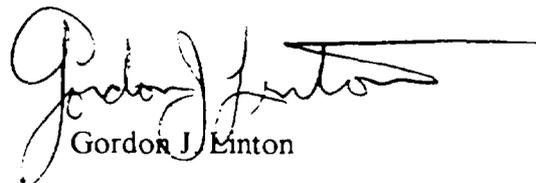
A Message from the Federal Transit Administrator:

To address our country's needs for the 21st century, communities across America have been called upon to help us in our efforts to create a world-class transportation network. This effort includes putting people first and helping to make communities livable. The Federal Transit Administration (FTA) has taken this direction by expanding the role of transit in serving people and the diverse communities they call home, as well as in advancing transit systems which take people from where they are to where they want to go, when they want to go, at a price they can afford, and do so safely and securely. These principles are the basis for FTA policies and programs and are embodied in the programs and projects described in this directory.

The programs and projects funded by FTA in fiscal year 1996 and documented in this directory are designed to promote customer-friendly, community-oriented transit facilities and services that not only provide personal mobility, but also enhance the quality of life in communities and help ensure America's economic vitality. They also reflect FTA's commitments to ensure that all transit riders have secure and safe rides, and to develop and demonstrate new and innovative technologies including applications of advanced navigation, vehicle design, information, and communication technologies that most benefit public transportation.

In addition, having recognized the global importance of electronic information networks, FTA has established a Home Page (site) on the World Wide Web of the Internet -- the road that is leading us into the Information Age of the 21st century. The Home Page provides the transportation community rapid access to large quantities of electronic data and information, and direct communication links with other transit-related programs and systems. We encourage you to visit the FTA Home Page on the World Wide Web at the following address: <http://www.fta.dot.gov>.

I am proud to share with you this report on how the FTA is translating its commitments to a new vision and new philosophy for public transportation in America into specific transportation planning and research projects.



Gordon J. Linton



U.S. Department
of Transportation
Federal Transit
Administration

TRANSIT PLANNING AND RESEARCH PROGRAMS

FISCAL YEAR 1996 PROJECT DIRECTORY

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Office of Research, Demonstration and Innovation

Prepared for

Federal Transit Administration
U.S. Department of Transportation

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Report Number

FTA-TRI-30-96-2

Transit Planning and Research Programs: FY 1996

FOREWORD

This annual directory contains brief descriptions of the transit planning, research and safety projects initiated during fiscal year 1996 by the Federal Transit Administration (FTA) of the U S Department of Transportation. Its purpose is to inform the transit community and the general public of the nature and scope of work underway to assist state and local agencies in improving services and reducing the cost of public transit.

The projects listed in the directory reflect the implementation of FTA's Strategic Plan, which includes a mission statement that brings a new vision to public transportation in America . . . "high quality public transportation that ensures personal mobility and livable communities."

In this report, each project entry is profiled separately and consists of the following information: project title and number, grantee/contractor name and address, principal investigator name and telephone number, FTA project manager name and telephone number, funding source and funding dollar amount, start and completion dates, and a summary description of the project.

The 94 projects recorded in this FY 1996 directory are organized within the following transit subject areas: Intelligent Transportation Systems; Advanced Public Transportation Systems, New Bus Vehicles and Infrastructure; Advanced Bus Propulsion Systems; New Rail Vehicles and Infrastructure; Transit Service and Management Innovation; Rural and Specialized Transportation; Metropolitan/Rural Policy Development; Planning and Project Development; Safety and Security; Human Resources; National Transit Database; Transit Cooperative Research Program; National Transit Institute; Rural Transit Assistance Program; and University Transportation Centers Program. The Regional Offices of the Federal Transit Administration are listed in the final section along with their street address, telephone and FAX numbers.

Recognizing that electronic information networks are contemporary and important ways of sharing information with the community, we intend to continue making this type of reference material available to our customers through the FTA Home Page on the World Wide Web (<http://www.fta.dot.gov>).

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ITS: Advanced Public Transportation Systems

Project Title: APTS Program Technical Support
Project Number: MA-26-7007-02 **Funding:** \$700,000
Start Date: June 1996 **Estimated Completion:** September 1997
Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square, DTS-49
Cambridge, Massachusetts 02142
Principal Investigator: Robert Ow **Phone:** 617/494-2411 **FAX:** 617/494-3670
FTA Project Manager: Denis J. Symes **Phone:** 202/366-0232 **FAX:** 202/366-3765

Description: This project provides technical assistance to the Advanced Public Transportation Systems (APTS), Intelligent Transportation Systems (ITS) program. The project effort will focus on the continuation of the national transit systems architecture development, communications research and implementation, international ITS standards development, frequency spectrum requirements analysis, multi-modal Smart Cards, passenger information, and definition of a rural transit APTS program. Moreover, the project will advance transit by providing technical assistance to transit agencies installing APTS systems so the maximum benefits can be realized. In addition, the U S supplier industry will enhance its international competitiveness through the development and adoption of international standards. The transit industry can be expected to respond more quickly to changes through the adoption of new electronic technologies. This project was funded by the Department's ITS Joint Program Office, HVH-1.

Project Title: Blacksburg Rural Traveler Information System
Project Number: VA-26-7007 **Funding:** \$240,000
Start Date: July 1996 **Estimated Completion:** July 1998
Grantee/Contractor: Town Of Blacksburg
2800 Commerce Street
Blacksburg, Virginia 24060-6656
Principal Investigator: Michael Connelly **Phone:** 703/961-1185 **FAX:** 703/951-3142
FTA Project Manager: Ronald E. Boenau, TRI-11 **Phone:** 202/366-0195 **FAX:** 202/366-3765

Description: This project represents a breakthrough in supplying transportation information to small and rural communities. The project will enable the Town of Blacksburg to operationally test a rural transit, advanced traveler information system (ATIS) using automatic vehicle location and monitoring (AVL/AVM) technology along with an established "electronic village" in a small town. Bus location and arrival times will be provided through the computer-based electronic network, at wayside stops, and through kiosks located at high travel locations in Blacksburg and at Virginia Tech. Pre-trip and en-route transit traveler information user services will be the major focus of the operational test. The operational test project is a joint effort with Blacksburg Transit and Virginia Tech Center for Transportation Research. The Town of Blacksburg is known for its "electronic village" which is an extensive electronic network system used by both academia and the citizenry. Blacksburg Transit has been in service since April 1983 and operates 27 buses on eight routes. Daily ridership is about 8,500 during the academic year. The setting is ideal for developing an electronic traveler information system. A final project report will be developed and made available to the transportation community and the public. This project was funded by the Department's ITS Joint Program Office, HVH-1.

ITS: Advanced Public Transportation Systems

Project Title: Dallas Area Rapid Transit Personalized Public Transit Operational Test

Project Number: TX-26-7002

Funding: \$392,000

Start Date: March 1996

Estimated Completion: March 1998

Grantee/Contractor: Dallas Area Rapid Transit
PO Box 660163
Dallas, Texas 75266-0163

Principal Investigator: Dr. Siamak

Phone: 817 273-3881 ***FAX:*** 817 273-2630

FTA Project Manager: Raymond W. Keng, TRI-11 ***Phone:*** 202 366-6667 ***FAX:*** 202 366-3765

Description: Reliance on single-occupant vehicles (SOV) is a major contributor to congestion and poor air quality in the metropolitan area. Vehicular emissions comprise some 36 percent of the emissions in the area. One effective way to reduce vehicular emissions is to encourage urban travelers to switch from SOV to other modes, including public transit. This project supports the efforts of the Dallas Area Rapid Transit District (DART) to conduct an ITS operational test of a personalized public transit system. The concept of personalized public transit allows for flexibility of fixed-route service to improve traveler access time. Once a call is received for transit service in the vicinity of an existing transit route, the route is diverted to respond to the call. Various hardware components of the system will be designed, including the computer hardware configuration, as well as the central operator communication system for processing service calls and communications with vehicle operators. DART's existing AVI system will interface with the operations center. After determinations have been made regarding candidate route criteria and system requirements, the service will be implemented and evaluated in terms of its effectiveness and cost. This project was funded by the Department's ITS Joint Program Office, HVH-1.

Project Title: International Border Electronic Clearance Operation Test-CALSTART

Project Number: CA-26-0021-05/06

Funding: \$1,438,000

Start Date: June 1996

Estimated Completion: September 1998

Grantee/Contractor: CALSTART, Inc
3601 Empire Avenue
Burbank, California 91505

Principal Investigator: Michael J. Gage

Phone: 818 565-5600 ***FAX:*** 818/565-5610

FTA Project Manager: Shang Hsiung, TRI-20 ***Phone:*** 202/366-0241 ***FAX:*** 202/366-3765

Description: This project was undertaken with the FHWA to support CALSTART and the Southern California Partnership (SCP) efforts to develop and demonstrate Intelligent Transportation System (ITS) technologies that improve commercial vehicle and transit operations. The ITS technologies to be developed and demonstrated will include onboard and roadside data communications systems, vehicle tracking, and information processing. When fully developed and commercially available, these systems will provide significant improvements to transit system operations, as well as to commercial vehicle operations. A full evaluation of these systems will be documented and made available to the transit community. The objective of this project is to provide

ITS: Advanced Public Transportation Systems

an accredited service, to both border officials/agencies and commercial fleet users, that allows selected vehicles to pass international border check points without stopping or with expedited inspections. CALSTART and SCP will develop, integrate and install a commercial vehicle demonstration system at the Mexican border which will ensure that federal and state law enforcement and regulatory requirements are met. The system will provide for the use of electronic credentials and vehicle onboard monitoring to facilitate preclearance by the Immigration and Naturalization Service, Customs, and safety and environmental personnel. The proposed approach will be fully compatible with the existing Interstate system to permit truck, auto, and bus traffic to flow smoothly across the international border and on the Interstate system. The ITS technology will benefit bus transit systems by demonstrating a cost-effective automatic vehicle identification technology. This project was funded by the Department's ITS Joint Program Office, HVH-1.

Project Title: National Transit Geographic Information System
Project Number: MA-26-7006-02 ***Funding:*** \$125,000
Start Date: April 1996 ***Estimated Completion:*** September 1996
Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square, DTS-49
Cambridge, Massachusetts 02142
Principal Investigator: Jackson Royal ***Phone:*** 617/494-2151 ***FAX:*** 617/494-3260
FTA Project Manager: William E. Wiggins, TRI-11 ***Phone:*** 202/366-0255 ***FAX:*** 202/366-3765

Description: Description: An electronic-based transit spatial data system is needed to analyze and depict transit system inventory and FTA program information according to geographic location. The system will be a key tool for measuring and understanding the extent, use, performance, and consequences of the nation's transit inventory. The transit spatial data, created to support the Transit Geographic Information System (GIS), will also be a component of the National Spatial Data Infrastructure currently being developed in all sectors of the federal government to provide a national network of geospatial data. This project provides continuing technical support for the development of a prototype Transit GIS. The Transit GIS prototype will contain a variety of databases such as county and state boundaries, congressional districts, metropolitan statistical areas, railroads, and highway databases, as well as the data (565 transit networks, all fixed guideway, nationally) already collected on the public transit assets of the country. This project has already provided the FTA and the industry a wealth of national data that has never existed before in this format. This data will be put in the public domain. Technical support includes cost-benefit analysis and requirements for the Transit GIS, purchase of software and hardware technology, and installation of the FTA Transit GIS prototype at three FTA Regional Offices as demonstration sites for addressing regional applications and issues.

ITS: Advanced Public Transportation Systems

Project Title: National Transit Geographic Information System: Transit Service and Performance Data

Project Number: MA-26-7020-01 ***Funding:*** \$275,000

Start Date: April 1996 ***Estimated Completion:*** December 1997

Grantee/Contractor: Bridgewater State College
Bridgewater, Massachusetts 02325

Principal Investigator: Bonnie Troupe ***Phone:*** 508/697-1242 ***FAX:*** 508/279-6121

FTA Project Manager: William Wiggins, TRI-11 ***Phone:*** 202/366-0255 ***FAX:*** 202/366-3765

Description: An electronic-based Transit Geographic Information System (GIS) is needed to analyze and depict transit system inventories, fixed-guideway networks, public transit systems and FTA program information, according to geographic location, in a quick and easy manner. This project provides continued support for the development and use of the National Transit GIS as an analytical and decision support tool for FTA management. It will provide technical expertise to complement the database development work completed in Phases 1 and 2 of the National Transit GIS (a national fixed-route bus database). Relevant transit information will be collected and reviewed on various aspects of transit agency level of service and performance and will be incorporated into the national fixed-route bus database. Development of a national database on transit agency level of service will provide information regarding the impact of FTA funding. It will also support the Department's goal of developing a National Transportation Atlas that provides key transportation information to the industry. Information can further be used to analyze and depict the volume and flow of passengers on individual transit systems.

Project Title: Northern Virginia Regional Fare System

Project Number: VA-26-7009 ***Funding:*** \$200,000

Start Date: September 1996 ***Estimated Completion:*** September 1998

Grantee/Contractor: Northern Virginia Transportation Commission
4350 North Fairfax Drive, Suite 720
Arlington, Virginia 22203

Principal Investigator: Rick Taube ***Phone:*** 703-524-3322 ***FAX:*** 703/524-1756

FTA Project Manager: Sean Ricketson, TRI-11 ***Phone:*** 202-366-6678 ***FAX:*** 202/366-3765

Description: This project supports the efforts of the Northern Virginia Transportation Commission to design a Regional Fare System. The system will integrate the fare collection operations of separate commuter rail, bus, and Metrorail operators. The project is in concert with the Washington Metropolitan Area Transportation Authority's decision to implement the recently demonstrated GO Card throughout Metrorail. Building on this successful Go Card demonstration, this project will show how advanced fare systems can be used to facilitate the integration of fare systems of different transit operators. With passenger transfer rates between the participating operators of 30-40 percent, this site is well suited to demonstrate the benefits and passenger convenience of a seamless transportation system.

ITS: Advanced Public Transportation Systems

Project Title: Small Urban and Rural Computer Dispatch Evaluation
Project Number: NC-26-7003 **Funding:** \$100,000
Start Date: September 1996 **Estimated Completion:** October 1997
Grantee/Contractor: North Carolina State University
PO Box 7908
Raleigh, North Carolina 27695-7908
Principal Investigators: Dr. John Stone, and **Phone:** 919/515-7732 **FAX:** 919/515-8898
Dr. Anna Nalevanko **Phone:** 919/515-8899 **FAX:** 919/515/8898
FTA Project Manager: Ronald E. Boenau, TRI-11 **Phone:** 202/366-0195 **FAX:** 202/366-3765

Description: This project will evaluate computer dispatch and related technology options for small urban and rural transit operations. It will 1) identify user needs, 2) compare products, 3) compare operational impacts of various products, 4) assess combinations of hardware and software, and 5) provide procurement guidance. The research methodology will include a literature review, a survey of both vendors and users, an evaluation of operational data from a case study, an evaluation of sample software, and the development of procurement guidelines. This project builds upon the 1992 published report which proved to be successful in guiding transit systems in designing and purchasing dispatching systems. The report has served as a valuable resource to transit operators, especially in the rural environment where the primary means of serving the transit population relies upon this technology. Many rural transit systems are now planning for the use of advanced technology to improve their service operations and expand their area of coverage at minimal cost. This project was funded by the Department's ITS Joint Program Office, HVH-1.

Project Title: Winston-Salem Mobility Management: Proactive Transit Service Improvements
Project Number: NC-03-4501 **Funding:** \$240,000
Start Date: July 1996 **Estimated Completion:** December 1997
Grantee/Contractor: City of Winston-Salem
Winston-Salem Transit Authority
PO Box 2511
Winston-Salem, NC 27102
Principal Investigator: John Stone **Phone:** 919/515-7732 **FAX:** 919/515-7908
FTA Project Manager: Ronald E. Boenau, TRI-11 **Phone:** 202/366-0195 **FAX:** 202/366-3765

Description: This is the second phase of the two-phase Winston-Salem Mobility Management project. The project will enable the City of Winston-Salem to operationally test the mobility management concept by extending the mobility management service throughout the paratransit fleet and linking the service into the fixed-route operations. Mobility management services and system specifications will be defined for the coordination of paratransit and fixed route transit. Hardware and software will be obtained and installed for operational testing. An evaluation of the test will be conducted. Phase I of this project demonstrated the capability of applying mobility management concepts in a mid-sized community and represents a significant milestone in application of advanced public transportation systems technologies among a variety of transportation providers. A final report will be published and made available to the transit industry and the public.

New Bus Vehicles and Infrastructure

Project Title: Advanced Technology Transit Bus
Project Number: CA-26-7002-02 **Funding:** \$5,000,000
Start Date: February 1996 **Estimated Completion:** September 1999
Grantee/Contractor: Los Angeles County Metropolitan Transportation Authority
818 West Seventh Street, 11th Floor
Los Angeles, California 90017
Principal Investigator: Jim Pachan **Phone:** 213/972-5856 **FAX:** 213/972-5724
FTA Project Manager: Bart W. Mancini, TRI-20 **Phone:** 202/366-8063 **FAX:** 202/366-3765

Description: The FTA initiated the Advanced Technology Transit Bus (ATTB) program in 1992 to develop, prototype and demonstrate an advanced space-age bus. Through FTA grants to the Los Angeles County Metropolitan Transportation Authority (LACMTA) and the Metropolitan Transit Authority of Harris County, Texas, this 7-year project will integrate and demonstrate the following in a single vehicle: advanced lightweight body and frame materials, advanced hybrid-electric propulsion, energy storage, power management and regenerative braking subsystems designed to significantly increase fuel efficiency and meet ultra-low emission air quality standards, and intelligent location, navigation and control combined with public information systems. ATTB makes use of advanced aerospace type materials and manufacturing technology to reduce the bus curb weight by one-third, while maintaining or improving structural strength and crashworthiness. This will result in fuel-efficiency gains, less brake and tire wear and longer service life. The ATTB body shell is made of fiberglass/epoxy skins molded around a foam core, with graphite added to reinforce high stress areas. Northrop-Grumman Corporation is the prime contractor developing the body shell design, materials, tooling, manufacturing and assembly technology. Several other companies are contributing to this cutting-edge bus design. This project enables LACMTA to continue development of the new design ATTB. The first prototype is due in October 1996. This project is a full funding cooperative agreement with LACMTA.

Project Title: Advanced Technology Transit Bus Technical Support
Project Number: CA-26-7009 **Funding:** \$100,000
Start Date: November 1995 **Estimated Completion:** December 1996
Grantee/Contractor: Aegir Systems
2051 North Solar Drive, Suite 200
Oxnard, California 93030
FTA Project Manager: Bart W. Mancini, TRI-20 **Phone:** 202/366-8063 **FAX:** 202/366-3765

Description: The ATTB project is a large, complex, and fast moving development effort. It requires both technical and program management oversight. This project provides technical and general management and oversight support for the ATTB program. Project support activities will include the evaluations of ATTB deliverables, indepth review of documentation, the performance of technical analyses and other professional services to supplement the FTA inhouse resources. The FTA initiated the ATTB program in 1992 to develop, prototype and demonstrate an advanced space-age bus.

New Bus Vehicles and Infrastructure

Project Title: Baseline Advanced Design Transit Coach Specifications: Update
Project Number: DC-26-7017-02 ***Funding:*** \$295,000
Start Date: July 1996 ***Estimated Completion:*** March 1998
Grantee/Contractor: American Public Transit Association
1201 New York Avenue, NW
Washington, DC 20005
Principal Investigator: Karol Popkin ***Phone:*** 202/898-4052 ***FAX:*** 202/898-4049
FTA Project Manager: Bart W Mancini, TRI-20 ***Phone:*** 202/366-8063 ***FAX:*** 202/366-3765

Description: The process currently in place for the purchase of transit buses has created an adversarial relationship between transit operators and manufacturers resulting in higher cost vehicles. The consensus among the industry and the FTA is that something needs to be done. It is anticipated that a standard purchase specification could significantly reduce and simplify the time required and the complexity of the procurement process which could result in lower cost vehicles. This project will enable the transit industry, operators and suppliers to continue their efforts to develop industry-wide purchase standards, consisting of technical specifications and procurement guidelines, for transit buses similar to the *White Book* developed in the late 1970s. The *White Book* has become obsolete and needs to be updated. This project will develop a single standard purchase document agreed to by the transit industry which will result in lower cost vehicles and a streamlined procurement process.

Project Title: New Bus Model Testing: Fee Supplement
Project Number: PA-03-0238-05 ***Funding:*** \$993,000
Start Date: November 1995 ***Estimated Completion:*** September 1996
Grantee/Contractor: Pennsylvania Transportation Institute
248 Calder Way, Suite 300
University Park, Pennsylvania 16801
Principal Investigator: Bohdan T Kulakowski ***Phone:*** 814/863-1893 ***FAX:*** 814/865-3039
FTA Project Manager: Bart W Mancini, TRI-20 ***Phone:*** 202/366-8063 ***FAX:*** 202/366-3765

Description: The Bus Testing Program is designed to promote the production of better transit vehicles and components and to ensure that FTA customers purchase safe vehicles able to withstand the rigors of transit service. This project enables FTA to pay 80 percent of the fee for bus testing directly to the Pennsylvania Transportation Institute, the operator of the Bus Testing Center in Altoona, Pennsylvania, on a reimbursable basis for tests performed. The remaining 20 percent is paid by the bus manufacturer or entity having the vehicle tested. Payment is made to the Center at the time of vehicle delivery. The 80 percent subsidy applies only to standard fee schedule which includes the normal costs for testing, inspecting, vehicle servicing, routine maintenance, and fuel. The Federal share payment of the bus testing fee was authorized under ISTEA. This project lessens the financial burden on those transit systems required to have their vehicles tested at the Center. It also provides the Center's users with information on vehicle durability, performance, handling, fuel economy, noise and other elements.

Advanced Bus Propulsion Systems

Project Title: **Advanced Lead Acid Battery Consortium: Electric Vehicle Consortia Program**

Project Number: NC-26-0003-02 **Funding:** \$489,100

Start Date: December 1995 **Estimated Completion:** December 1998

Grantee/Contractor: Advanced Lead Acid Battery Consortium
PO Box 12036
Research Triangle Park, North Carolina 27709

Principal Investigator: Dr. Patrick T. Moseley **Phone:** 919/361-4647 **FAX:** 919/361-1957

FTA Project Manager: Shang Hsiung, TRI-20 **Phone:** 202/366-0241 **FAX:** 202/366-3765

Description: The utility of electric vehicles is limited severely by the batteries currently available, particularly in terms of range and lifetime. This project provides continued support to the Advanced Lead Acid Battery Consortium. The project has successfully developed the technology and hardware required for the safe, rapid recharging of batteries along with the battery monitoring and control equipment to enhance performance and to extend the useful life of batteries. This effort will demonstrate the application of the developed rapid recharge technology to enhance the range of electric transit vehicles. The Advanced Lead Acid Battery Consortium will install the developed battery monitoring and control system on an electric transit vehicle and a system of rapid recharging on a regular bus route. An evaluation of the demonstration will be conducted on the performance of the bus battery and the range extension possible. The evaluation may be used to develop improved bus batteries. This project fosters the production of better transit vehicles and components.

Project Title: **Clean Air Safety Technologies**

Project Number: MA-26-7021-01 **Funding:** \$75,000

Start Date: April 1995 **Estimated Completion:** April 1997

Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square, DTS-38
Cambridge, Massachusetts 02142

Principal Investigator: William Hathaway **Phone:** 617/494-2081 **FAX:** 617/494-2684

FTA Project Manager: Jeffrey Mora, TRI-20 **Phone:** 202/366-0215 **FAX:** 202/366-3765

Description: Alternative fuel usage in the transit industry is rapidly increasing. This project reflects the transit industry's need to have the capability to quickly identify and respond to technical and safety issues related to the operation, fueling, and maintenance of alternative fuel vehicles. The Volpe Center will provide technical support for the FTA Clean Air Program, namely, to complete ongoing work to develop *Facilities Guidelines for Alternative Fuel Buses*. Critical design issues regarding safety associated with the use of alternative fuels will be analyzed and alternatives developed to assist transit agencies in providing acceptable levels of safety during transit operations, maintenance, storage, and refueling of alternative fuel vehicles. Other key safety issues will also be addressed.

Advanced Bus Propulsion Systems

Project Title: Demonstration of Universal Electric Transportation Subsystems
Project Number: NM-26-7000-02 **Funding:** \$140,000
Start Date: September 1996 **Estimated Completion:** July 1997
Grantee/Contractor: DUEETS Consortium
Nova Bus Incorporated
PO Box #5670 (R.I.A.C.)
Roswell, New Mexico 88202-5670
Principal Investigator: David Reddy **Phone:** 505/347-7288 **FAX:** 505/547-7508
FTA Project Manager: Bart W. Mancini, TRI-20 **Phone:** 202/366-8063 **FAX:** 202/366-3765

Description: Existing transit buses are overweight, expensive to operate, and will not be able to comply with future clean air requirements. The Demonstration of Universal Electric Transportation Subsystems (DUEETS) Program will develop and commercialize technologies to address these concerns. The objective of this cooperative agreement is to provide additional support to the efforts of the DUEETS Consortium to develop and test an advanced alternatively fueled electric-hybrid drive system, advanced suspension components, and advanced vehicle control networks for transit bus applications. The resultant technologies will provide ultra-low emissions along with improved vehicle handling, reduced highway damage, and interfaces with intelligent transportation systems. Davis Technologies International, a DUEETS Consortium member, is tasked to develop and test the advanced suspension system and components that will improve vehicle handling, reduce structural load inputs to the bus and reduce highway damage. ARPA funds have been transferred from Sandia National Laboratories, NM-26-7001, to this DUEETS Consortium project.

Project Title: Design of Regenerative Fuel Cell Power System
Project Number: VA-26-7010 **Funding:** \$500,000
Start Date: December 1995 **Estimated Completion:** January 1997
Grantee/Contractor: Advanced Research Projects Agency
Department of Defense
3701 North Fairfax Drive
Arlington, Virginia 22203
Principal Investigator: Larry Dubois **Phone:** 703/696-2283 **FAX:** 703/696-3999
FTA Project Manager: Shang Hsiung, TRI-20 **Phone:** 202/366-0241 **FAX:** 202/366-3765

Description: The objective of this interagency agreement is to support the efforts of the Advanced Research Projects Agency (ARPA) to begin the design for the Regenerative Fuel Cell Power System for Georgetown University. The design effort supports the verification testing of a 25KW regenerative fuel cell power system. Data will be provided to conceptualize and design an integrated fuel cell power generation system for a fuel cell transportation facility on the Georgetown campus. Aside from providing electrical power service to the facility, the fully developed regenerative fuel cell system will have the potential to generate methanol, hydrogen, and deionized water for fuel cell powered buses. The regenerative fuel cell system may also have the potential to

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mitigate carbon monoxide emissions from the facility. The system would comprise the core element of an onsite, waste-to-energy, total energy system being planned for the university. In this system, commercial waste handling, gasification systems, and heat recovery systems would be incorporated with the regenerative fuel cell system to provide a cost-effective, autonomous, environmentally benign total energy system demonstration.

Project Title: Domestic Fuel Cell Transit Bus Development Program
Project Number: DC-26-7002-04 ***Funding:*** \$4,891,000
Start Date: April 1996 ***Estimated Completion:*** December 1998
Grantee/Contractor: Georgetown University
New Southwest Lobby
37th and O Streets, NW
Washington, DC 20057
Principal Investigator: James Larkin ***Phone:*** 202/687-7361 ***FAX:*** 202/687-4507
FTA Project Manager: Shang Hsiung, TRI-20 ***Phone:*** 202/366-0241 ***FAX:*** 202/366-3765

Description: This project provides continuing support to Georgetown University to conduct a program for the development of a U.S. produced fuel cell propulsion systems for transit buses. The program will provide the preliminary engineering and development activities necessary for the domestic and commercial production of a 40-foot fuel cell bus with a domestically produced fuel cell. Georgetown University has provided technical and program management for the 30-foot test bed fuel cell bus development program directed by the Department of Energy and co-sponsored by the FTA. Three prototype 30-foot test bed fuel cell buses have been built for demonstration and evaluation. This project supports the development of a domestic industry for the production of these fuel efficient and environmentally acceptable vehicles. Both the phosphoric acid fuel cell (PAFC) and the proton exchange membrane fuel cell (PEMFC) technologies will be developed for bus propulsion systems operating on liquid fuels. Ultimately, the PAFC and PEMFC technologies will be applied to the Advanced Technology Transit Bus prototype. This project is a multi-year fuel cell program and includes support from the Advanced Research Projects Agency (ARPA) of the Department of Defense.

Project Title: Domestic Fuel Cell Transit Bus Development Program
Project Number: DC-26-7002-05 ***Funding:*** \$567,000
Start Date: July 1996 ***Estimated Completion:*** January 1998
Grantee/Contractor: Georgetown University
New Southwest Lobby
37th and O Streets, NW
Washington, DC 20057
Principal Investigator: James Larkin ***Phone:*** 202/687-7361 ***FAX:*** 202/687-4507
FTA Project Manager: Shang Hsiung, TRI-20 ***Phone:*** 202/366-0241 ***FAX:*** 202/366-3765

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Description: The objective of this project is to support the efforts of the Advanced Vehicle Department of Georgetown University to continue the program for the development of U.S. produced fuel cell systems for transit buses. The program will provide the preliminary engineering and development activities necessary for the domestic and commercial production of fuel cell powered, full-sized transit buses. This project supports the evaluation of alternative fuel processors capable of generating acceptable quantities of hydrogen rich gas from either diesel, JP-8, or light petroleum distillate fuels to meet PEMFC purity requirements. In addition, the effort will design, develop, and test laboratory scale hardware of promising fuel processor technology to be used with a membrane hydrogen cleanup technology. This project was funded by ARPA.

Project Title: Domestic Fuel Cell Transit Bus Development Program Technical Support

Project Number: MA-26-0021-02

Funding: \$300,000

Start Date: August 1996

Estimated Completion: January 1998

Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square
Cambridge, Massachusetts 02142

Principal Investigator: David Spiewak

Phone: 617/494-2771 **FAX:** 617/494-3066

FTA Project Manager: Shang Hsiung, TRI-20

Phone: 202/366-0241 **FAX:** 202/366-3765

Description: Transit agencies are faced with meeting stringent bus emission standards that are increasingly more difficult to meet with diesel technology. Fuel cells offer near zero emissions as well as more efficient power generation and improved reliability and lower maintenance costs. This project provides technical support for the management of the Fuel Cell Transit Bus Development Program. Technical issues associated with the development of both phosphoric acid fuel cell and proton exchange membrane technologies will be addressed for transit bus propulsion systems operating on liquid fuels. Complex technical issues associated with alternative fuel processors capable of generating acceptable quantities of hydrogen rich gas from either diesel, JP-8, or light petroleum distillate fuels to meet PEMFC purity requirements will also be addressed. In addition, systems integration issues associated with the integration of a fuel cell propulsion system into the Advanced Technology Transit Bus (ATTB) will be addressed. Basically, the technical support activities will include: preparing technical analyses and briefing papers, monitoring the status of key issues, and participating in public conferences and events related to the program. This project was funded by ARPA.

Project Title: Domestic Fuel Cell Transit Bus Development Program Technical Support

Project Number: VA-26-7006-01

Funding: \$47,000

Start Date: December 1995

Estimated Completion: December 1996

Grantee/Contractor: PM & Associates, Inc.
559A Southlake Boulevard
Richmond, Virginia 23236

Principal Investigator: Prolay Mukherjee

Phone: 804/379-3779 **FAX:** 804/378-0311

FTA Project Manager: Shang Hsiung, TRI-20

Phone: 202/366-0241 **FAX:** 202/366-3765

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Description: Since 1987, the FTA has worked with the Department of Energy (DOE) on a fuel cell/battery bus development program. That effort has resulted in the delivery of three prototype 30-foot test bed buses that use a PAFC technology. This project provides technical support for the development of a U.S. produced fuel cell system for transit buses. It builds upon the efforts of the 30-foot test bed bus program to develop a domestic 40-foot fuel cell transit bus, and to bring the fuel cell bus technology to the state of commercial production. A technical evaluation will be conducted of the phosphoric acid fuel cell (PAFC) system which will be integrated into a 40-foot bus platform. The evaluation will assess the adequacy of the PAFC system to power a 40-foot transit bus in a variety of transit duty cycles. This analysis will also include a detailed assessment of the fuel cell power plant, the proposed energy storage technology, the weight and volume of the entire propulsion system including balance of plant, fuel, and fuel storage. Comparisons will be made of advanced PAFC and proton exchange membrane fuel cell (PEMFC) systems (both technologies are currently in use). Life cycle cost analysis of the fuel cell transit bus will be performed and compared to standard diesel buses, as well as alternative fueled buses. The economic and environmental costs and benefits in achieving reduced emissions will be determined.

Project Title: Electric Transit Vehicle Institute Challenge Grant
Project Number: TN-26-0002-03 **Funding:** \$70,108
Start Date: September 1996 **Estimated Completion:** January 1998
Grantee/Contractor: Chattanooga Area Regional Transportation Authority
1616 Wilcox Boulevard
Chattanooga, Tennessee 37406
Principal Investigator: John Powell **Phone:** 615/622-3884 **FAX:** 423/622-0744
FTA Project Manager: Shang Hsiung, TRI-20 **Phone:** 202/366-0241 **FAX:** 202/366-3765

Description: The objective of this amendment is to assist the Chattanooga Area Regional Transportation Authority (CARTA) to continue to support the efforts of the Electric Transit Vehicle Institute to promote the design, production and use of electric vehicles in transit. The Institute will continue to serve as the facilitator and resource center for electric vehicle development for the transit industry. In addition, the Institute will provide the opportunity for the research, design, development, and demonstration of electric transit vehicles, components, and support systems, as well as coordinate transit industry efforts in electric vehicles through the establishment of a technical coordinating committee, conferences, and information dissemination activities.

Advanced Bus Propulsion Systems

Project Title: International Border Electronic Clearance Operation Test-CALSTART
Project Number: CA-26-0021-05/06 **Funding:** \$1,438,000
Start Date: June 1996 **Estimated Completion:** September 1998
Grantee/Contractor: CALSTART, Inc
3601 Empire Avenue
Burbank, California 91505
Principal Investigator: Michael J Gage **Phone:** 818/565-5600 **FAX:** 818/565-5610
FTA Project Manager: Shang Hsiung, TRI-20 **Phone:** 202/366-0241 **FAX:** 202/366-3765

Description: This project was undertaken with the FHWA to support CALSTART and the Southern California Partnership (SCP) efforts to develop and demonstrate Intelligent Transportation System (ITS) technologies that improve commercial vehicle and transit operations. The ITS technologies to be developed and demonstrated will include onboard and roadside data communications systems, vehicle tracking, and information processing. When fully developed and commercially available, these systems will provide significant improvements to transit system operations, as well as to commercial vehicle operations. A full evaluation of these systems will be documented and made available to the transit community. The objective of this project is to provide an accredited service, to both border officials/agencies and commercial fleet users, that allows selected vehicles to pass international border check points without stopping or with expedited inspections. CALSTART and SCP will develop, integrate and install a commercial vehicle demonstration system at the Mexican border which will ensure that federal and state law enforcement and regulatory requirements are met. The system will provide for the use of electronic credentials and vehicle onboard monitoring to facilitate preclearance by the Immigration and Naturalization Service, Customs, and safety and environmental personnel. The proposed approach will be fully compatible with the existing Interstate system to permit truck, auto, and bus traffic to flow smoothly across the international border and on the Interstate system. The ITS technology will benefit bus transit systems by demonstrating a cost-effective automatic vehicle identification technology. This project was funded by the department's ITS Joint Program Office, HVH-1

New Rail Vehicles and Infrastructure

Project Title: **Circuit Breaker Development and Test**
Project Number: PA-26-7002-01 ***Funding:*** \$2,200,000
Start Date: June 1996 ***Estimated Completion:*** December 1999
Grantee/Contractor: Southeastern Pennsylvania Transportation Authority
 1234 Market Street
 Philadelphia, Pennsylvania 19107
Principal Investigator: Wasif Nacqvi ***Phone:*** 215-580-7507 ***FAX:*** 215/580-3666
FTA Project Manager: Jeffrey Mora, TRI-20 ***Phone:*** 202/366-0215 ***FAX:*** 202/366-3765

Description: This project enables the Southeastern Pennsylvania Transportation Authority (SEPTA) to modernize its regional rail division substations which are over 65 years old and have non-standard electrical equipment that is prone to failure. Manufacturers are unwilling to develop equipment to meet the specialized needs of one transit agency. The project supports SEPTA efforts to design, develop, test and evaluate a railroad duty traction power circuit breaker with related switchgear and control systems. This multi-phase project will result in the development and testing of 12,000/24,000 volt (KV), 25 cycle (HZ) single phase circuit breakers. In Phase 1, the contractor will perform the necessary equipment designs, including constructability/manufacturability analyses. In Phase 2, the required circuit breakers switchgear and control equipment will be delivered to SEPTA for operational test and evaluation. A final report documenting the Phase 2 activities will be delivered to FTA and made available to the transit community and the public.

Project Title: **Circuit Breaker Development for SEPTA - Technical Support**
Project Number: VA-26-7006-02 ***Funding:*** \$242,000
Start Date: September 1996 ***Estimated Completion:*** December 1999
Grantee/Contractor: PM & Associates, Inc
 567B Southlake Boulevard
 Richmond, Virginia 23238
Principal Investigator: Raymond Horvat ***Phone:*** 804/379-3779 ***FAX:*** 804/378-0311
FTA Project Manager: Jeffrey Mora, TRI-20 ***Phone:*** 202/366-0215 ***FAX:*** 202/366-3765

Description: This task order provides the necessary technical support for FTA to monitor the project relating to transit traction power systems at SEPTA. The SEPTA project currently underway is designed to develop and test a railroad duty traction power circuit breaker and related switch gear for its electrified Regional Rail Division. New state-of-the-art equipment will replace the electric power system which was installed in the 1930s and is prone to failure. The contractor will provide the necessary oversight, analyses, assessments, and recommendations, etc. that ensure successful operation of the new equipment.

Transit Service and Management Innovation

Project Title: Community Works Program in Hennepin County, Minnesota
Project Number: MN-26-7002 ***Funding:*** \$500,000
Start Date: July 1996 ***Estimated Completion:*** February 1998
Grantee/Contractor: Hennepin County Training and Employment Assistance
300 South Sixth Street
Minneapolis, Minnesota 55487-0012
Principal Investigator: Larry Blackstad ***Phone:*** 612/348-5859 ***FAX:*** 612/348-3932
FTA Project Manager: Stewart McKeown, TRI-12 ***Phone:*** 202/366-0244 ***FAX:*** 202/366-3765

Description: The *Hennepin Community Works* program is an intergovernmental planning framework, managed by the Hennepin Community Planning Committee, to coordinate strategic public infrastructure investments being developed by Hennepin County, the City of Minneapolis, the Minneapolis Park and Recreation Board, the Suburban Hennepin Regional Park District, and the Minneapolis School District. The purpose of the program is to pool resources and projects of member agencies to reverse the economic deterioration in specific urban and suburban areas. The program is designed to be a comprehensive planning tool (available to all units of government) to assist in the coordination and effective use of multi-jurisdictional infrastructure and economic investments that will increase mobility and access to employment opportunities, encourage business development, enhance property values and encourage the development of new jobs. This project will assist Hennepin County in developing a national model for transit oriented infrastructure improvements which will serve as a guide for solving the growing problem of economic deterioration in urban neighborhoods and suburban areas (which is manifested in depressed employment and earnings levels, increasing reliance on public assistance and social services, crime, and so forth). A national model addressing these problems will be developed by studying transit infrastructure-led community development strategies in Hennepin County as well as in other cities. The multi-jurisdictional Hennepin Community Planning Committee is currently developing four transit infrastructure projects that will serve as a source of basic research for development of this national model. The projects involve use of old railroad rights-of-way for bike and pedestrian trails and future light rail transit development.

Project Title: FTA Home Page on the World Wide Web
Project Number: DC-26-7054 ***Funding:*** \$100,000
Start Date: December 1996 ***Estimated Completion:*** December 1997
Grantee/Contractor: Bureau of Transportation Statistics
U. S. Department of Transportation
Washington, DC 20590
Principal Investigator: Brian Long ***Phone:*** 202/776-0400 ***FAX:*** 202/452-0699
FTA Project Manager: Robert Owens, TBP-10 ***Phone:*** 202/366-1689 ***FAX:*** 202/366-7116

Description: This project provides for the continuing development of a comprehensive and customer-oriented FTA Home Page on the Internet World Wide Web service. The electronic Web service provides extensive information to the public about FTA and FTA programs, including FTA periodic reports, circulars, and final research project reports. The FTA Web site is designed to serve as a convenient customer-stop for transit information. It is linked to numerous other Web sites including transit operators, research agencies, Bureau of Transportation Statistics, Volpe

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Transportation Systems Center, Transportation Research Board and others. This project will develop a Traveler Information System that links together all transit information sites on the Internet allowing anyone to easily access transit information from around the country. The World Wide Web is an electronic communication and information network that allows the user, namely, the transit user, to communicate with other people and access vast quantities of electronic data and information. The FTA Home Page address on the World Wide Web is: <http://www.fta.dot.gov>

Project Title: **Independent Transportation Network**
Project Number: ME-03-4000 ***Funding:*** \$125,000
Start Date: September 1996 ***Estimated Completion:*** November 1997
Grantee/Contractor: Southern Maine Area Agency on Aging
309 Cumberland Avenue
Portland, Maine 04101
Principal Investigator: Kathy Freund ***Phone:*** 207/772-2077 ***FAX:*** 207/772-2204
FTA Project Manager: Stewart McKeown, TRI-12 ***Phone:*** 202/366/0244 ***FAX:*** 202/366-3765

Description: This project will enable the Southern Maine Area Agency on Aging to develop and implement an operational demonstration of the innovative Independent Transportation Network (ITN) in Portland, Maine. The ITN will be a financially self-sufficient transportation program specifically designed to provide transportation services for elderly citizens who can no longer safely drive their own automobiles. Although there will be no restrictions on who can use the service, the ITN will focus primarily on shared-ride transportation for the elderly who own and operate their own vehicles, but because of diminished capacity, no longer want to drive themselves or can no longer safely drive their own automobiles. The ITN will use demand responsive automobiles to match the convenience of private cars. It will offer payment options ranging from cash to transportation credits earned from trading-in unused vehicles, to payment into an individual ITN account from the elderly user or their children. Development of the ITN has been funded through the National Highway Traffic Safety Administration, the Transportation Research Board of the National Academy of Sciences, and the American Association of Retired People.

Project Title: **Maintain Automated Mailing List for Disseminating Technical Information**
Project Number: MD-26-7023 ***Funding:*** \$10,000
Start Date: April 1996 ***Estimated Completion:*** October 1996
Grantee/Contractor: INFOSEARCH Services, Inc.
3611 Collier Road, Suite G
Beltsville, Maryland 20705
Principal Investigator: Jan P. Lazzeri ***Phone:*** 301/937-0462 ***FAX:*** 301/937-0462
FTA Project Manager: Henry Nejako, TRI-1 ***Phone:*** 202/366-0184 ***FAX:*** 202/366-3765

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Description: INFOSEARCH will manage and keep up-to-date a computerized mailing list database of approximately 9,000 names and addresses of individuals and organizations in the transportation community. The mailing list is used to disseminate information about the FTA research projects and program activities. Advanced data management techniques will be used to resolve problems related to duplicate and inconsistent or obsolete information. Customized mailing labels and updated computer database files will be provided to the FTA Office of Research, Demonstration and Innovation and copied to the local area computer network for use by the FTA staff.

Project Title: **Oversight of Fare Collection Procedures**

Project Number: MA-90-7016 **Funding:** \$200,000

Start Date: January 1996 **Estimated Completion:** August 1997

Grantee/Contractor: Harvard Design & Mapping Company, Inc.
30 Spinelli Place
Cambridge, Massachusetts 02138

Principal Investigator: Kija Kim **Phone:** 617/354-0100 **FAX:** 617/868-6855

FTA Project Manager: Joseph Goodman, TRI-12 **Phone:** 202/366-0240 **FAX:** 202/366-3765

Description: Since passenger revenues account for approximately one-half of all revenues in many transit operations, it is important to examine the ways that transit agencies collect, account for, transport, and secure passenger revenues. The purpose of this project, which is part of the FTA Financial Management Oversight Initiative, is to undertake an oversight effort of transit agency fare collection practices. A review of the fare collection procedures of several selected transit agencies will be conducted from three general groupings of fare collection methods: 1) traditional pay-as-you board cash, token, or pass systems, 2) stored value farecard systems, and 3) self-service or honor systems. Major topics of interest will include the cost of collection for each method, resistance to fare evasion, accuracy of accounting, transport and banking, resistance to fraud, fare handling, ease of passenger understanding and use, ease of adjusting fare levels, and others. The APTA Fare Collection Committee will help select transit agencies for this oversight study. A final report, summarizing the fare collection practices of the selected transit agencies, will be delivered to the FTA and made available to the transit community and the general public.

Project Title: **Printing and Distribution of Technical Reports**

Project Number: DC-26-0011-05 **Funding:** \$15,000

Start Date: August 1996 **Estimated Completion:** September 1997

Grantee/Contractor: Transportation Administrative Service Center
U.S. Department of Transportation
Washington, DC 20590

FTA Project Manager: Helen M. Tann, TRI-1 **Phone:** 202/366-0207 **FAX:** 202/366-3765

Description: The FTA Office of Research, Demonstration and Innovation (formerly the Office of Technical Assistance and Safety) provides technical assistance to projects that explore new technologies, new techniques and analytical tools for operating and managing transit. To make this project information available to the transit community and other interested parties, it is necessary to

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disseminate the information throughout the country, usually in the form of printed reports. This interagency agreement with the Office of the Secretary provides for the printing and dissemination of these reports

Project Title: Small Business Innovations Research Program
Project Number: MA-26-7030/7016-01 ***Funding:*** \$557,000
Start Date: July 1996 ***Estimated Completion:*** November 1996
Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square
Cambridge, Massachusetts 02142
Principal Investigator: George Kovatch ***Phone:*** 617/494-2051 ***FAX:*** 617/494-2370
FTA Project Manager: Stewart McKeown, TRI-12 ***Phone:*** 202/366-0244 ***FAX:*** 202/366-3765

Description: FTA is an active participant in the Small Business Innovations Research (SBIR) Program of the U.S. Department of Transportation (US DOT). The FTA/SBIR program supports research projects that enhance the innovative capacity of small businesses in the United States, as well as meet FTA research needs. The SBIR program is an annual statutory program, coordinated by the Small Business Administration, that conducts research of interest to the US DOT through small businesses, thereby stimulating technological innovation and commercialization in that sector. Phase I research projects are selected based on a competitive procedure and a determination that funding them will enable the firm to validate the feasibility of the particular concept or technology in question. Some projects may be continued on to a second phase. Additional funds are awarded to help develop the concept or technology to the point where it is commercially viable. Overall, the program promotes the growth and development of small businesses and technology firms. It offers small businesses in the United States an opportunity to participate in FTA research and enhance their innovative capacity.

Project Title: Team Transit Demonstration
Project Number: MN-26-0002-04 ***Funding:*** \$500,000
Start Date: September 1996 ***Estimated Completion:*** March 1999
Grantee/Contractor: Metropolitan Transit Commission
560 Sixth Avenue North
Minneapolis, Minnesota 55411-4398
Principal Investigator: Arron Isaacs ***Phone:*** 612/349-7690 ***FAX:*** 612/349-7612
FTA Project Manager: Stewart McKeown, TRI-12 ***Phone:*** 202/366-0244 ***FAX:*** 202/366-3765

Description: Ultimately, the Team Transit Program is expected to serve as a national model for addressing congestion problems that adversely affect transit vehicles in urban and suburban areas across the country. This project provides continued support for the development of the Metropolitan Transit Commission Team Transit Program. Team Transit is an intergovernmental partnership initially established in 1993 to implement solutions to transit mobility and congestion problems in the urban and suburban areas of Minneapolis and St. Paul, Minnesota, as well as to develop innovative intergovernmental partnerships that improve transit services. This means developing innovative intergovernmental partnerships that lessen red tape and quickly implement road improvement projects that speed transit vehicles through congested areas/bottlenecks. The program emphasizes

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innovation, minimal bureaucracy and quick implementation of road improvement projects, such as bus lanes or ramp meter bypasses that give an advantage to transit vehicles. Most local government jurisdictions are team members and work together to coordinate the design of road improvements needed to facilitate the flow of transit vehicles through congested areas. A major objective of the program is to dramatically reduce the time that it normally takes to implement these interjurisdictional projects. Partners in Team Transit include the Metropolitan Transit Commission, Minnesota Department of Transportation, Metropolitan Council, Regional Transit Board, local government units, transit operators, and universities. Basically, Team Transit is designed to tear down traditional barriers to interagency cooperation.

Project Title: Technical Assistance and Research Dissemination Through the National Academy of Sciences
Project Number: DC-26-7053 ***Funding:*** \$150,000
Start Date: July 1996 ***Estimated Completion:*** July 1997
Grantee/Contractor: National Academy of Sciences
2101 Constitution Avenue, NW
Washington, DC 20418
Principal Investigator: Peter Shaw ***Phone:*** 202/334-2966 ***FAX:*** 202/334-2003
FTA Project Manager: Gwendolyn Cooper, TRI-30 ***Phone:*** 202/366-0198 ***FAX:*** 202/366-3765

Description: The Transportation Research Board (TRB) of the National Academy of Sciences is a unique source of independent, highly regarded expertise which develops and disseminates new information addressing transit issues. TRB is the major catalyst stimulating transit research by individuals and organizations outside of the Federal government. The efforts of TRB to focus on transit problems and get them resolved on a cooperative basis are unique and have been of long-standing value to the transit industry. This project will enable the Transportation Research Board to maintain an extensive network of transit experts to resolve commonly held transit needs through the conduct and application of appropriate research, to maintain and operate the computerized Urban Mass Transportation Research Information Services database, to support the TRB Annual Meeting, and to support the study of Sustainable Transportation.

Project Title: Vanpool Project for Central City Commuters in Houston, Texas
Project Number: TX-26-7004 ***Funding:*** \$144,000
Start Date: March 1996 ***Estimated Completion:*** March 1998
Grantee/Contractor: Texas Southern University - Houston
Center for Transportation Training and Research
3100 Cleburne Avenue
Houston, Texas 77004
Principal Investigator: Dr. Naomi W. Lede ***Phone:*** 713/527-7011 ***FAX:*** 713/639-1856
FTA Project Manager: Charlene Wilder, TRI-11 ***Phone:*** 202/366-1077 ***FAX:*** 202/366-3765

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Description: This project will enable Texas Southern University-Houston to continue a Vanpool Project for central city commuters which was begun in August 1994 and discontinued in 1995. The project is designed to address the mobility and accessibility needs of individuals living in the inner city of Houston, namely, the elderly and physically disabled residents in the low income Cuney Homes Housing Project. The Vanpool Demonstration Project will provide a linkage between public transit and the community it serves, as well as address the mobility and accessibility needs of these transit dependent individuals. Previous research indicated gaps in existing public transit service during off-peak periods at times when the service was needed. This vanpool service was established to determine how best to meet these demands of transit-dependent groups in disadvantaged neighborhoods. The service was not designed to compete with or replace existing services, but to integrate existing service with expanded vanpool service and to contribute to energy savings and reduce congestion in the academic corridor where the low income housing project of Cuney Homes is located. This vanpool project for central city commuters (elderly and persons with disabilities) will provide data that other communities can use to develop comparable systems.

Rural and Specialized Transportation

Project Title: African American Mobility Symposium
Project Number: FL-26-7005 ***Funding:*** \$20,000
Start Date: March 1996 ***Estimated Completion:*** November 1996
Grantee/Contractor: University of South Florida
4202 East Fowler Avenue
Tampa, Florida 33620-5350
Principal Investigator: Eric Hill ***Phone:*** 813/974-9845 ***FAX:*** 813/974-4962
FTA Project Manager: Pauline D'Antignac, TRI-30 ***Phone:*** 202/366-0234 ***FAX:*** 202/366-3765

Description: This project enables the University of South Florida to conduct a two-day symposium that focuses on the mobility and transportation needs of the African-American community. The symposium will provide an opportunity for African-Americans to be included in the decisionmaking process by providing a forum for the exchange of ideas and information, as well as for the discussion of transportation planning, programming and policy issues related to the African-American population. The symposium proceedings will contribute to the body of knowledge on topics and issues discussed, and will help develop an agenda for addressing the transportation needs of minority communities at the local level. Ultimately, the symposium is expected to help clarify and create a better understanding of the transportation issues facing the African-American and minority communities.

Project Title: DOT/DHHS Joint Coordinating Council - Administrative Support
Project Number: DC-26-7055 ***Funding:*** \$25,000
Start Date: June 1996 ***Estimated Completion:*** September 1996
Grantee/Contractor: Neal R. Gross & Company, Inc
Court Reporters and Transcribers
1323 Rhode Island Avenue, NW
Washington, DC 20005
Principal Investigator: Neal R. Gross ***Phone:*** 202-387-7330 ***FAX:*** 202/234-4433
FTA Project Manager: Pauline D'Antignac, TRI-30 ***Phone:*** 202-366-0234 ***FAX:*** 202/366-3765

Description: This project provides administrative assistance to the DOT/DHHS Joint Coordinating Council on Human Services Transportation. Council meetings produce information on transportation-related issues of concern to both the US DOT and the Department of Health and Human Services (DHHS). The information is intended to help both agencies achieve better coordination of transportation services. This project provides for the recording, editing, printing and distributing of Council activities to regional offices of both departments, US DOT and Human Service providers, state transit associations, and others.

Rural and Specialized Transportation

Project Title: National Governors Association Welfare Reform Transportation Pilot Program

Project Number: DC-26-7056 ***Funding:*** \$49,000

Start Date: September 1996 ***Estimated Completion:*** September 1997

Grantee/Contractor: National Governors Association
444 North Capitol Street, NW
Washington, DC 20418

Principal Investigator: Jay Kayne ***Phone:*** 202/624-5320 ***FAX:*** 202/624-5313

FTA Project Manager: Douglas Birnie, TRI-30 ***Phone:*** 202/366-4238 ***FAX:*** 202/366-3765

Description: The objective of this cooperative agreement is to develop a welfare reform transportation pilot program with the National Governors Association (NGA) and the Department of Health and Human Services (DHHS). Under the leadership of a Governor's office, this project will develop a comprehensive approach to the coordination of human services and public transportation resources in support of welfare/health care reform initiatives. The intent is to ensure transportation access and financial support to welfare/health care reform programs being planned and undertaken by the states through the coordinated delivery of transportation resources and providers. Proposals will be solicited from individual Governors' offices and states, and will be jointly evaluated and selected by NGA, DHHS, and FTA. This project will initiate a pilot program within the Governor's office of a selected state and include state transportation and human services agencies along with local agencies in the development and implementation of the plan.

Project Title: New Hampshire State Department of Transportation

Project Number: NH-26-7000 ***Funding:*** \$100,000

Start Date: July 1996 ***Estimated Completion:*** September 1997

Grantee/Contractor: New Hampshire State Department of Transportation
91 Airport Road
Concord, New Hampshire 03302-0483

Principal Investigator: Kenneth A. Hazeltine ***Phone:*** 603/271-2468 ***FAX:*** 603/271-6767

FTA Project Manager: Elizabeth Solomon ***Phone:*** 202/366-0242 ***FAX:*** 202/366-3765

Description: The New Hampshire Department of Health and Human Services and the State Department of Transportation (DOT) contracted with the Office of State Planning in 1996 for a statewide transit coordination study. The study made recommendations for a statewide structure for a coordinated transportation system in New Hampshire. This project provides the initial support that will enable the New Hampshire State DOT to develop and implement two regional coordination demonstration systems, one in a rural area and one in an urban area. Various services to be coordinated include the following: central dispatch, procurement services, reporting, billing, ride matching and eligibility, training, routing, scheduling, and vehicle needs. The performing agency will document current ridership, trip length, vehicle inventory, hours of service data, and any other data needed to evaluate the effectiveness of coordination in the region. The project activities will help determine coordination elements that work. Coordination allows regions to expand the service areas and make transportation more user-friendly. Ultimately, this demonstration project will bring together both public and human services transportation providers and enhance transportation coordination.

Rural and Specialized Transportation

Project Title: Project ACTION (Accessible Community Transportation in Our Nation)

Project Number: DC-26-7051 ***Funding:*** \$2,000,000

Start Date: April 1996 ***Estimated Completion:*** June 1997

Grantee/Contractor: National Easter Seal Society, Inc
1350 New York Avenue, NW, Suite 915
Washington, DC 20005

Principal Investigator: Robert C. Carlson ***Phone:*** 202/347-3066 ***FAX:*** 202/347-4157

FTA Project Manager: Gwendolyn Cooper, TRI-30 ***Phone:*** 202/366-0198 ***FAX:*** 202/366-3765

Description: The National Easter Seal Society Project ACTION program will continue to develop transit accessibility demonstration projects that will 1) identify persons with disabilities and their transportation needs, 2) develop outreach and marketing activities to encourage public transportation use by persons with disabilities, 3) provide training for transportation providers to increase their sensitivity to the needs of persons with disabilities, 4) provide training for persons with disabilities regarding the use of public transportation, and 5) encourage elimination of barriers to accessible services and facilities. In addition, this project enables Project ACTION to enhance the national resource center and clearinghouse capability to disseminate products on both the national and local levels, and to develop a system for evaluating various types of accessible transportation technologies.

Project Title: Technical Assistance to FTA's Coordination Effort

Project Number: MO-26-7001 ***Funding:*** \$271,000

Start Date: July 1996 ***Estimated Completion:*** December 1997

Grantee/Contractor: American Public Works Association
2345 Grand Boulevard, Suite 500
Kansas City, Missouri 64108-2625

Principal Investigator: Beth Denniston ***Phone:*** 202/393-0137 ***FAX:*** 202/737-9153

FTA Project Manager: Douglas Birnie, TRI-30 ***Phone:*** 202/366-4238 ***FAX:*** 202/366-3765

Description: This project supports the activities of the American Public Works Association (APWA) to bring together a closer relationship between the states and the offices of the governors. This is desirable because the state's role in the administration of human service transportation programs is of interest to the DOT/DHHS Joint Coordinating Council of Human Service Transportation. APWA will document the states' accomplishments to develop approaches to coordinate public and human service transportation programs, to communicate practical information concerning coordination between federal and state programs, and to research and report existing information on how transportation benefits health and human services programs. Specifically, APWA will work with the National Governors Association to develop an agenda for transportation coordination reflecting the passing of social service programs from federal institutions to the states. APWA will also assist the FTA in carrying out the Memorandum of Understanding with the South African Department of Transport by providing technical assistance and technology advances to enhance South African transit and highway interests through modification and use of RTAP video and workbook training manuals.

Metropolitan/Rural Policy Development

Project Title: Art in Transit
Project Number: MD-26-6002-02 **Funding:** \$55,000
Start Date: December 1995 **Estimated Completion:** June 1997
Grantee/Contractor: COMSIS Corporation
8737 Colesville Road, Suite 1100
Silver Spring, Maryland 20910
Principal Investigator: Dieter Klinger **Phone:** 301/588-5922 **FAX:** 301/588-5922
FTA Project Manager: Fred L. Williams, TBP-10 **Phone:** 202/366-4060 **FAX:** 202/366-7116

Description: The purpose of art in public transit projects is to make public transportation a first-class experience in every aspect, i.e., making transit friendly to commuters and communities. The purpose of this project is to develop a brochure to encourage and instruct local art associations and transit art administrators on the incorporation of art and design in public transit projects.

Project Title: Equitable Transportation Access
Project Number: DC-26-6020-02 **Funding:** \$175,000
Start Date: October 1996 **Estimated Completion:** November 1997
Grantee/Contractor: Joint Center for Political and Economic Studies
1090 Vermont Avenue, NW, Suite 1100
Washington, DC 20005-4961
Principal Investigator: Barbara O'Hare **Phone:** 202/789-3500 **FAX:** 202/7879-6390
FTA Project Manager: John Day, TBP-10 **Phone:** 202/366-4060 **FAX:** 202/366-7116

Description: The purpose of this project is to study the transportation characteristics of part-time workers in the United States. This growing segment of the workforce reflects a changing economy and workforce. From previous studies, it has become evident that part-time workers were more reliant on bus transit and less likely to drive alone to work and find carpooling a viable option. This project will further explore the equity issues involved in this growing phenomenon in the United States.

Project Title: Innovative Finance Services
Project Number: MD-26-6003-01 **Funding:** \$185,000
Start Date: September 1996 **Estimated Completion:** September 1997
Grantee/Contractor: Marlaw Systems Technology, Inc.
8121 Georgia Avenue, Suite 801
Silver Spring, Maryland 20910
Principal Investigator: Gloria Lawlah-Walker **Phone:** 301/588-9781 **FAX:** 301/588-9785
FTA Project Manager: Paul F. Marx, TBP-10 **Phone:** 202/366-1675 **FAX:** 202/366-7116

Description: This project supports the FTA Innovative Financing Initiative. The research team will develop analyses of the implications of alternative financing techniques for transit investments. This will include an assessment of how usable the technique would be for various transit systems by size, type of organization, or type of transit investment. The investment may involve new fixed guideway systems, rail modernization, rolling stock acquisitions, or facilities to serve multiple transportation modes. Expert assistance will be provided to transit systems that propose innovative

Metropolitan/Rural Policy Development

financing or asset management techniques. Expert assistance will also be provided to states that establish State Infrastructure Banks, pursuant to authority granted in the National Highway System Designation Act of 1995. Tasks will include site visits, meetings with private finance entities and investors, and technical meetings and evaluation of local and federal legal issues, as well as assisting cities and transit systems in the development of appropriate financing techniques.

Project Title: **Livable Community Benefits of Transit Services**

Project Number: MD-26-6001-06 ***Funding:*** \$115,000

Start Date: November 1995 ***Estimated Completion:*** December 1996

Grantee/Contractor: Hickling-Lewis-Brod, Inc
8720 Georgia Avenue, Suite 1005
Silver Spring, Maryland 20910

Principal Investigator: David Lewis ***Phone:*** 301/565-0391 ***FAX:*** 301/565-0394

FTA Project Manager: Fred L. Williams, TBP-10 ***Phone:*** 202/366-1696 ***FAX:*** 202/366-7116

Description: The purpose of this project is to assist the research team in its efforts to develop policy analysis materials for use by the FTA and the U.S. Department of Transportation policymakers in the budgetary and reauthorization processes. The project will report research findings on how livable community benefits are reflected in household transportation costs and in property values. A user-friendly format will be used to present a body of research that is transforming professional and popular understanding about what transit does for communities. The product will be published for distribution to the Congress and other policymaking agencies.

Project Title: **Livable Communities Initiative - National Partnership for Transportation**

Project Number: NY-26-6001 ***Funding:*** \$200,000

Start Date: June 1996 ***Estimated Completion:*** March 1997

Grantee/Contractor: Project for Public Spaces
153 Waverly Place
New York, New York 10014

Principal Investigator: Fred Kent ***Phone:*** 212/620-5660 ***FAX:*** 212/620-3821

FTA Project Manager: William B. Mencer, TBP-10 ***Phone:*** 202/366-4060 ***FAX:*** 202/366-7116

Description: This project will enable the Project for Public Spaces to develop a national public/private partnership that will further advance the role of transportation in building livable communities. The partnership will join together the public and private domain in an effort to improve the capacity of transportation planning, decisionmaking and investments to enhance social economies and physical well-being of all communities. A report-- *Building Livable Communities Through Transportation*-- describing five projects jointly funded by the FTA and the FHWA, will be published and made available to the transit community in October 1996.

Metropolitan/Rural Policy Development

Project Title: Livable Communities Initiative Support
Project Number: CA-26-6003-04/05 **Funding:** \$169,000
Start Date: September 1996 **Estimated Completion:** December 1997
Grantee/Contractor: Kensington Systems Inc
1083 West Kensington Road
Los Angeles, California 90026
Principal Investigator: Keitha Wilson **Phone:** 703/807-1185 **FAX:** 703/807-1187
FTA Project Manager: Kenneth Johnson, TBP-30 **Phone:** 202/366-6060 **FAX:** 202/366-7116

Description: The Livable Communities Initiative supports transit capital projects that strengthen the relationship between transit and community development, stimulate greater community involvement in the development process, and increase access to community services and jobs. This project will provide professional support services that will evaluate the Livable Communities Initiative program and develop a systematic approach to measuring transit performance from the customer's perspective. The project will also examine transit performance in terms of the functions that transit serves in the community. The evaluation will focus on the relationship between the community and the planning process and the impacts of individual projects. Project activities include the following: collecting base-line data, developing evaluation guidelines, providing technical assistance to FTA and participating communities, assessing the impacts of projects being evaluated, documenting the findings, and preparing a project report.

Project Title: Measuring the Benefits of Transit
Project Number: MD-26-6001-07 **Funding:** \$62,000
Start Date: April 1996 **Estimated Completion:** May 1997
Grantee/Contractor: Hickling-Lewis-Brod, Inc
8720 Georgia Avenue, Suite 1005
Silver Spring, Maryland 20910
Principal Investigator: David Lewis **Phone:** 301/565-0391 **FAX:** 301/565-0394
FTA Project Manager: Fred L. Williams, TBP-10 **Phone:** 202/366-1696 **FAX:** 202/366-7116

Description: ISTEA major investment policy requires the application of benefit-costs analysis to transit investments involving a broad array of impacts and benefits. This project will enable the research team to develop benefit-costs methods as they apply to transit projects. It will provide analytical work in terms of applying FTA findings to the scope and methods of benefit-costs analysis. Earlier FTA-sponsored projects developed methods that incorporated the benefits of transit-oriented development, the benefits of congestion management, the benefits of low-cost mobility, and the benefits of pedestrian-oriented neighborhoods and commercial centers. This project will study these benefits further and enhance the basis of information for making the case for transit. It will also provide the basis for altering the FTA New Starts criteria to a benefit-cost approach. The methods being developed in this project are within the FTA Benefit-Cost project and program assessment framework. This effort will provide decisionmakers with a complete accounting of transit benefits, i.e., beyond the narrow measures of cost-effectiveness.

Metropolitan/Rural Policy Development

Project Title: Third Party Contracting - Best Practices Manual
Project Number: PA-26-3001-01/PA-90-3001 **Funding:** \$445,000
Start Date: April 1996 **Estimated Completion:** December 1997
Grantee/Contractor: John Milligan, CPA
Mulberry Atrium North
105 N 22nd Street, Second Floor
Philadelphia, Pennsylvania 19103
Principal Investigator: Denise Bailey **Phone:** 215/496-9100 **FAX:** 215/496-0980
FTA Project Manager: Carolyn Thompson, TAD-40 **Phone:** 202/366-4980 **FAX:** 202/366-3808

Description: This *Best Practices Manual* will provide FTA grantees with technical assistance in carrying out their third party contracting. In addition to explaining FTA requirements, the manual will contain industry sanctioned uniform provisions emanating from the APTA Procurement Steering Committee's White Book (sponsored by FTA), as well as examples of best practices in use by other transit agencies. Basically, this project supports the development and maintenance of the *Third Party Contracting - Best Practices Manual* for a period of three years. The manual will be available on the FTA Home Page of the Internet World Wide Web (<http://www.fta.dot.gov/>)

Project Title: Transit Benefit Quick-Response
Project Number: MD-26-6001-08 **Funding:** \$125,000
Start Date: December 1995 **Estimated Completion:** May 1997
Grantee/Contractor: Hickling-Lewis-Brod, Inc
8720 Georgia Avenue, Suite 1005
Silver Spring, Maryland 20910
Principal Investigator: David Lewis **Phone:** 301/565-0391 **FAX:** 301/565-0394
FTA Project Manager: Fred L. Williams, TBP-10 **Phone:** 202/366-1696 **FAX:** 202/366-7116

Description: The purpose of this project is provide additional assistance to the research team in its efforts to develop analytical policy materials for use by the FTA and the U.S. Department of Transportation policymakers in the budgetary and reauthorization processes. These materials will incorporate research findings on the benefits of pedestrian-oriented development, the benefits of congestion management, and the benefits of low-cost mobility. Some of the products have already been used in the *FTA Transit 1996 Report*. The resulting project products will be published for distribution to the Congress and other policymaking agencies.

Planning and Project Development

Project Title: Dulles Corridor Major Investment Study
Project Number: VA-26-0009-01 ***Funding:*** \$500,000
Start Date: September 1996 ***Estimated Completion:*** March 1997
Grantee/Contractor: Virginia Department of Rail and Public Transportation
1401 E. Broad Street
Richmond, Virginia 23219
Principal Investigator: Bill LaBaugh ***Phone:*** 804/225-3930 ***FAX:*** 804/786-7286
FTA Project Manager: Sheila Cohen, TPL-10 ***Phone:*** 202/366-0096 ***FAX:*** 202/493-2478

Description: This project provides support to the Virginia Department of Rail and Public Transportation to continue the major investment study in the Dulles Corridor of Northern Virginia. The corridor extends from the West Falls Church Metrorail station (Orange Line) to the Dulles International Airport and continues into Loudoun County via the Dulles Access Road right-of-way. Access into the Tysons Corner area is also being studied. The alternatives being considered include various rail technologies (such as heavy rail), a no-build alternative, and an expanded express bus system alternative. The study is examining growth projections in the Dulles Corridor and the region, as well as projected travel patterns generated by development in the Corridor. When the study is completed, a preferred alternative and funding plan will be selected.

Project Title: Financial Assessment Reviews for New Starts Projects
Project Number: DC-08-8002 ***Funding:*** \$40,000
Start Date: September 1996 ***Estimated Completion:*** October 1997
Grantee/Contractor: Federal Highway Administration
Office of Environment & Planning
400 7th Street, SW, Room 3232
Washington, DC 20590
Principal Investigator: Sheldon Edner, HEP-21 ***Phone:*** 202/366-4066 ***FAX:*** 202/366-3713
FTA Project Manager: Timothy Boerner, TPL-20 ***Phone:*** 202/366-6782 ***FAX:*** 202/493-2478

Description: This interagency agreement with the FHWA provides contractor support to conduct financial reviews that will improve the management of the New Starts program. Financial reviews will be conducted to support the financial ratings of projects recommended for new funding commitments in the next Transit New Starts Report to the Congress. The research team will develop and assess information regarding the financial condition and capacity of transit agencies considering new guideway investments. Capital financial plans and agency resources will be reviewed, along with a determination of whether sufficient funds are available to undertake a major capital improvement project while maintaining existing transit service and operations. These financial reviews will be performed on selected grantees with projects approaching a point where a full funding agreement may be considered. ISTEA requires that a number of determinations be made before a grant is awarded for the construction of a New Starts project. These determinations require that the planning process generate credible information on project costs, ridership, financing and environmental impacts.

Planning and Project Development

Project Title: Joint Development Best Practices
Project Number: DC-26-8002 ***Funding:*** \$91,000
Start Date: September 1996 ***Estimated Completion:*** September 1998
Grantee/Contractor: KPMG Peat Marwick
8200 Greensboro Drive, Suite 400
McLean, Virginia 22102
Principal Investigator: Roger Figura ***Phone:*** 703/917-6726 ***FAX:*** 703/556-0195
FTA Project Manager: Sharon Pugh, TPI.-20 ***Phone:*** 202/366-0713 ***FAX:*** 202/493-2478

Description: This interagency agreement with the FHWA supports the development of a report on the best practices of joint development in transit projects. The project builds upon previous work to bring together joint development, transit traffic engineering and urban design guidelines for improved site planning into one document. In addition, based on joint development case studies, these exemplary practices will provide local government officials, transit agencies and the private development community with state-of-the-art concepts and principles for incorporating transit facilities into commercial, retail, and residential developments. It will also provide technical guidelines for deploying FTA financial assistance in support of joint developments. The best practices guidelines will address the different types of activity center urban designs identified in previous research, and questions raised on joint development project design. Ultimately, the *Joint Development Best Practices* project report will be delivered and provide exemplary practices of what has been done, how it was done, and what it has accomplished for various communities. This action objective supports the implementation of the FTA Livable Communities Initiative, which promotes the development of transit facilities and services that meet the needs of communities.

Project Title: Land Use Impact of Rapid Transit
Project Number: CA-08-8022 ***Funding:*** \$150,000
Start Date: July 1996 ***Estimated Completion:*** September 1997
Grantee/Contractor: University of California, Berkeley
Institute of Urban & Regional Development
336 Sproul Hall
Berkeley, California 94720
Principal Investigator: Elizabeth Deakin ***Phone:*** 510/642-5940 ***FAX:*** 510/643-9576
FTA Project Manager: Brian E. Jackson, TPI.-20 ***Phone:*** 202/366-8520 ***FAX:*** 202/493-2478

Description: This project will enable the University of California, Berkeley, to continue a study to document the land use impacts of new rail systems and other fixed-guideway projects in the areas of land use and economic development. The study objectives include expanding the scope to cover land use and economic development impacts of newer systems and concepts; providing detailed information on the role of local government policies that encourage development around transit stations and assessing their local and regional impacts. This project will update the 20-year old Knight and Trygg study, *Measuring Land Use and Economic Development* (DC-26-9028). It will include more recently completed projects, such as Portland and San Diego light rail systems, and an assessment of the long-term impacts of heavy rail systems such as BART and MARTA.

Planning and Project Development

Project Title: Livable Communities Initiative - North Philadelphia Transportation Center
Project Number: PA-26-0009-01/MA-26-0002 ***Funding:*** \$54,000
Start Date: January 1996 ***Estimated Completion:*** December 1998
Grantee/Contractor: Southeastern Pennsylvania Transportation Authority/SEPTA
1234 Market Street, 9th Floor
Philadelphia, Pennsylvania 19107
Principal Investigator: J. Michael Olderman ***Phone:*** 215/580-7646 ***FAX:*** 215/580-3666
FTA Project Manager: Margaret Tornello, TRO-3 ***Phone:*** 215/656-6900 ***FAX:*** 215/656-7260

Description: The Livable Communities Initiative supports transit capital projects that strengthen the relationship between transit and community development, stimulate greater community involvement in the development process, and increase access to community services and jobs. This project will enable SEPTA to develop plans that will incorporate the Livable Communities principles into the rehabilitation of the North Philadelphia Transportation Center. The study will focus on the area of Broad Street and Lehigh Avenue in the vicinity of the North Philadelphia Broad Street subway. The study will include suggestions from the Neighborhood Action Bureau and other community groups, as well as from SEPTA and area developers. Suggestions, wherever possible, will be incorporated into SEPTA's final design of the project.

Project Title: Livable Communities Initiative - Program Support and Consortium
Project Number: DC-26-7043-01 ***Funding:*** \$75,000
Start Date: September 1996 ***Estimated Completion:*** December 1996
Grantee/Contractor: The American Institute of Architects
1735 New York Avenue
Washington, DC 20006
Principal Investigator: Deane Evans ***Phone:*** 202/626-7300 ***FAX:*** 202/626-7425
FTA Project Manager: Effie S. Stallsmith, TPL-20 ***Phone:*** 202/366-5653 ***FAX:*** 202/493-2478

Description: This project enables a consortium of transit professional organizations, namely the American Institute of Architects, the American Planning Association, the Institute of Transportation Engineers, and the International Downtown Association, to expand the consortium's role in Livable Communities by developing a descriptive brochure, a videotape and accompanying visual displays for the FTA Exhibit Booth that will tell the story of the Livable Communities Initiative and the role professionals play in creating livable communities. The video will highlight integrated transit and land use planning, community involvement in the planning process, transit-supportive traffic engineering, community-sensitive design in architecture, and transit's role in the economic development that leads to the livability of a community and increases transit ridership. The Consortium also completed the currently available Livable Communities Initiative booklet titled *Planning and Developing Community-Sensitive Transit* as part of this message.

Planning and Project Development

Project Title: **Livable Communities Initiative - East Coast Town Meetings and Technical Assistance**

Project Number: MA-26-7027-01 ***Funding:*** \$50,000

Start Date: November 1995 ***Estimated Completion:*** December 1996

Grantee/Contractor: Planners Collaborative, Inc.
273 Summer Street
Boston, Massachusetts 02210

Principal Investigator: Joseph Brevard ***Phone:*** 617/338-0018 ***FAX:*** 617/338-4228

FTA Project Manager: Effie Stallsmith, TPL-20 ***Phone:*** 202/366-5653 ***FAX:*** 202/493-2478

Description: This project is designed to provide the necessary support services to the FTA staff and local agencies in achieving the widest possible public participation in the implementation of the Livable Communities Initiative. The project will include the development and delivery of presentations and other related materials that help articulate and create a clearer understanding of the project's concepts, implementation, and evaluation processes. In addition, town meetings and community workshops will be conducted with the intent to bring together FTA staff, state and local government officials, transit agencies, community groups, and others. Basically, the project will assist communities in refining concepts and providing information on exemplary practices, planning procedures, and design standards.

Project Title: **Livable Communities Initiative - West Coast Town Meetings and Technical Assistance**

Project Number: CA-26-0009-06 ***Funding:*** \$91,000

Start Date: July 1995 ***Estimated Completion:*** July 1996

Grantee/Contractor: Gardner Consulting Planners
22010 South Wilmington Avenue, Suite 300
Carson, California 90745

Principal Investigator: Adrienne Sasser-Gardner ***Phone:*** 310/522-9584 ***FAX:*** 310/522-9587

FTA Project Manager: Effie Stallsmith, TPL-20 ***Phone:*** 202/366-5653 ***FAX:*** 202/493-2478

Description: The Livable Communities Initiative supports transit capital projects that strengthen the relationship between transit and community development, stimulate greater community involvement in the development process, and increase access to community services and jobs. This project is designed to provide the necessary professional support services to the FTA staff and local agencies in achieving the widest possible public participation in the implementation of the Livable Communities Initiative. Town meetings and community workshops will be planned and conducted in the Western portion of the country for the purpose of bringing together FTA staff, state and local government officials, community groups, other Federal agencies, metropolitan planning organizations, transit agencies, and private organizations, to exchange ideas and to advance the implementation of the concept.

Planning and Project Development

Project Title: Livable Communities Initiative - Technical Assistance and Program Support
Project Number: CA-26-8001 ***Funding:*** \$14,000
Start Date: February 1996 ***Estimated Completion:*** December 1996
Grantee/Contractor: Gardner Consulting Planners
22010 South Wilmington Avenue, Suite 300
Carson, California 90745
Principal Investigator: Adrienne Sasser-Gardner ***Phone:*** 310/522-9584 ***FAX:*** 310/522-9587
FTA Project Manager: Effie Stallsmith, TPL-20 ***Phone:*** 202/366-5653 ***FAX:*** 202/493-2478

Description: The Livable Communities Initiative supports transit capital projects that strengthen the relationship between transit and community development, stimulate greater community involvement in the development process, and increase access to community services and jobs. This project is designed to provide the necessary professional support services to the FTA staff and local agencies in achieving the widest possible public participation in the implementation of the Livable Communities Initiative. Town meetings and community workshops will be planned and conducted nationwide for the purpose of bringing together FTA staff, state and local government officials, community groups, other federal agencies, metropolitan planning organizations, transit agencies, and private organizations, to exchange ideas and to advance the implementation of the concept.

Project Title: Major Investment Planning Support
Project Number: DC-26-8006/8007 ***Funding:*** \$500,000
Start Date: September 1996 ***Estimated Completion:*** October 1997
Grantee/Contractor: Federal Highway Administration
Office of Environment & Planning
400 7th Street, SW, Room 3232
Washington, DC 20590
Principal Investigator: Sheldon Edner, HEP-21 ***Phone:*** 202/366-4066 ***FAX:*** 202/366-3713
FTA Project Manager: Timothy Boerner, TPL-20 ***Phone:*** 202/366-6782 ***FAX:*** 202/493-2478

Description: ISTEA, as well as FTA/FHWA metropolitan planning regulations require a number of determinations and major investment studies (MIS) before a grant is awarded for the construction of a transit New Starts project. For example, multimodal alternatives must be considered as part of the planning process. Since MIS is still a relatively new aspect of the planning process, there is a need for procedural guidance and technical assistance. This interagency agreement will provide contractor support to the FTA planning staff for major investment planning and project development. Such support will help FTA oversee the major investment studies, the preparation of environmental documents, circulars, guidance and training; and the planning aspects of preliminary engineering, particularly as they relate to the transit New Starts criteria. Project support will also include procedural guidance, technical assistance and training to grantees, state DOTs, MPOs and transit operators in the following areas: major investment studies, travel demand forecasting, engineering and costing, financial planning and environmental assessment. The FHWA contractors will also develop major investment case studies to determine the effect of the MIS process on major transportation investments. Best professional practices in planning analyses are promoted through this type of mechanism.

Planning and Project Development

Project Title: Management Oversight for Planning Operations
Project Number: MA-90-8008 ***Funding:*** \$250,000
Start Date: June 1996 ***Estimated Completion:*** September 1998
Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square
Cambridge, Massachusetts 02142
Principal Investigator: Douglas Lee, DTS-49 ***Phone:*** 617/494-2582 ***FAX:*** 617/494-2370
FTA Project Manager: Deborah R. Burns, TPL-20 ***Phone:*** 202/366-1637 ***FAX:*** 202/493-2478

Description: Under this project, the Volpe Center will assist the FTA and the FHWA in conducting planning reviews to assure that each metropolitan planning organization in each transportation management area is carrying out its responsibilities under applicable provisions of ISTEA and joint planning regulations. The Volpe Center will assist in conducting technical reviews of transportation planning in major metropolitan areas and drafting reports. The Center will also assist in fulfilling a departmental need by evaluating national trends in transportation planning in response to ISTEA and the Clean Air Amendments of 1990. These reports along with observations and recommendations that surface during the reviews will serve as input to ISTEA reauthorization.

Project Title: Planning Reviews and ISTEA Reauthorization Support
Project Number: MA-08-8019 ***Funding:*** \$125,000
Start Date: September 1996 ***Estimated Completion:*** September 1997
Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square
Cambridge, Massachusetts 02142
Principal Investigator: Douglas Lee, DTS-49 ***Phone:*** 617/494-2582 ***FAX:*** 617/494-2370
FTA Project Manager: Deborah R. Burns TPL-20 ***Phone:*** 202/366-1637 ***FAX:*** 202/493-2478

Description: This project will enable the Volpe Center to assist the FTA and the FHWA in analyzing the national response to ISTEA planning requirements and the significant trends in planning. A series of planning reviews will be conducted to assure that metropolitan planning organizations and transportation management areas, selected by FTA and FHWA, are carrying out their responsibilities under applicable provisions of the ISTEA and the Joint FTA/FHWA planning regulations. Information received from these reviews will serve as a key source of data used to develop the products (issue papers, briefings, etc.) needed by the Office of Planning and the department to effectively pursue the reauthorization of ISTEA.

Planning and Project Development

Project Title: Transit-Oriented Development - Livable Communities Symposium
Project Number: DC-26-8003 ***Funding:*** \$55,000
Start Date: September 1996 ***Estimated Completion:*** September 1996
Grantee/Contractor: Washington Metropolitan Area Transit Authority
600 5th Street, NW
Washington, DC 20001

Principal Investigator: Alvin McNeal ***Phone:*** 202/962-1240 ***FAX:*** 202/962-2396
FTA Project Manager: Effie S. Stallsmith, TPL-20 ***Phone:*** 202/366-5653 ***FAX:*** 202/493-2478

Description: The purpose of this cooperative agreement is to cover the expenses incurred by the Washington Metropolitan Area Transit Authority (WMATA) for a Transit-Oriented Development and Livable Communities symposium, co-sponsored by the FTA and held on March 28-29, 1996, at the National Building Museum in Washington, DC. The symposium examined legal, financial, design, market trends and regional issues and opportunities associated with transit-oriented development. Specific emphasis was placed on the joint development aspects of transit-oriented development. Case studies from WMATA and other agencies were examined and successful projects were showcased. The findings and ensuing decisions regarding questions raised as a result of this symposium had a direct affect on how future transit-oriented development and joint development projects are developed.

Project Title: Turnkey Demonstration and Planning Program Oversight
Project Number: MA-90-8005-01 ***Funding:*** \$400,000
Start Date: June 1996 ***Estimated Completion:*** October 1998
Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square
Cambridge, Massachusetts 02142

Principal Investigator: Douglas Lee, DTS-49 ***Phone:*** 617/494-2582 ***FAX:*** 617/494-2370
FTA Project Manager: Sharon Pugh, TPL-20 ***Phone:*** 202/366-0713 ***FAX:*** 202/493-2478

Description: This project provides continuing support for the implementation and management of the Turnkey Demonstration Program. It is part of an effort to assist the FTA in evaluating the efficiencies of the turnkey procurement method compared to traditional procurement methods in terms of cost effectiveness, risk management, project management and other factors. This project enables the Volpe Center to conduct project oversight of the turnkey demonstration projects. The effort will include: developing detailed plans of action for oversight evaluations; reviewing turnkey documents, including management plans, procurement documents, and contracts; analyzing data for trends and anomalies, and preparing a final report. The reports will address: project management practices and procedures, engineering, construction financing, scheduling, cost controls, change order procedures and practices, and subcontracting. Project tasks also include conducting conferences and roundtable discussions with the transit industry and providing evaluation support and expert technical assistance to the following turnkey demonstration sites: Baltimore Light Rail Extension, San Juan Tren Urbano, El Segundo del Norte (Green Line) Station in Los Angeles, and the San Francisco BART Airport Extension. All project reports and summations will be made available to the transit community as part of the program effort to advance new technologies and to lower the cost of constructing new transit systems.

Planning and Project Development

Project Title: Turnkey Demonstration Program Support
Project Number: MA-26-7027-02/03 ***Funding:*** \$98,000
Start Date: November 1995 ***Estimated Completion:*** December 1996
Grantee/Contractor: Planners Collaborative, Inc
273 Summer Street
Boston, Massachusetts 02210
Principal Investigator: Joseph Brevard ***Phone:*** 617/338-0018 ***FAX:*** 617/338-4228
FTA Project Manager: Sharon Pugh, TPI-20 ***Phone:*** 202/366-0713 ***FAX:*** 202/493-2478

Description: This project will assist the FTA in the management of the Turnkey Demonstration Program. The research team will provide support and assistance in keeping the FTA abreast of technical developments and evolving issues in critical areas of turnkey methodology, namely acquisition planning, risk assessment and management, finance, environmental mitigation, value engineering and project management control. The project effort will include recommendations for resolution of problems encountered by participants in the turnkey demonstration programs currently intact. Under this project, an issue paper was prepared on value engineering for the FTA and Transportation Research Board International Joint Development and Turnkey Workshop held in San Juan, Puerto Rico.

Project Title: Turnkey Demonstration Program Support
Project Number: DC-26-8005 ***Funding:*** \$75,000
Start Date: July 1996 ***Estimated Completion:*** July 1997
Grantee/Contractor: National Academy of Sciences
Transportation Research Board
2101 Constitution Avenue, NW
Washington, DC 20418
Principal Investigator: Peter Shaw ***Phone:*** 202/334-2983 ***FAX:*** 202/334-2003
FTA Project Manager: Sharon Pugh, TPI-20 ***Phone:*** 202/366-0713 ***FAX:*** 202/493-2478

Description: This cooperative agreement enables the Transportation Research Board (TRB) of the National Academy of Sciences to develop and conduct an international forum for discussion on critical issues associated with the use of turnkey project development and delivery. The project effort includes the following activities: establishing a TRB Task Force for developing the workshop program, coordinating logistics with the host site lead agency, and documenting the technical papers and presentations in a proceedings report. This workshop provides continuing support for the implementation, management and evaluation of the FTA Turnkey Demonstration Program.

Planning and Project Development

***J*Project Title:** Turnkey Oversight of the Los Angeles Gateway Project
***P*roject Number:** CA-90-8002 ***F*unding:** \$199,000
***S*tart Date:** March 1996 ***E*stimated Completion:** December 1997
***G*rantee/Contractor:** Gardner Consulting Planners
22010 South Wilmington Avenue, Suite 300
Carson, California 90745
***P*roject Manager:** Darcy Coles ***P*hone:** 310/522-9584 ***F*AX:** 310/522-9587
***F*TA Project Manager:** Sharon Pugh, TPL-20 ***P*hone:** 202/366-0713 ***F*AX:** 202/493-2478

***D*escription:** This project provides the FTA with technical assistance in evaluating and monitoring the development and construction of the Los Angeles Union Station Gateway Project using the turnkey method. Oversight activities include identification of problem areas and measures to maintain project time and cost schedules. In addition, this project will document any reduction in cost or schedule duration attributable to using the turnkey procurement method.

***P*roject Title:** Update Planning and Management Statutes for Urban and Rural Development - Growing Smart Project
***P*roject Number:** DC-26-8001 ***F*unding:** \$91,000
***S*tart Date:** August 1996 ***E*stimated Completion:** August 1997
***G*rantee/Contractor:** Department of Housing & Urban Development (HUD)
451 7th Street, SW
Washington, DC 20410
***P*roject Manager:** Jim Hoben ***P*hone:** 202/708-0574 ***F*AX:** 202/619-8560
***F*TA Project Manager:** Michael Hopson, TPL-10 ***P*hone:** 202/366-1701 ***F*AX:** 202/493-2478

***D*escription:** The present statutes that govern planning in the U.S. were written over 50 years ago and are still relied upon in as many as 40 states. Development patterns that these statutes have spawned across America have led to sprawling, inefficient patterns of land use, environmentally unfriendly developments, social inequities, spatial mismatch between jobs and potential employees, and an auto-dependent society. Concern over these issues has led to the creation of *Growing Smart*, a three-phase project aimed at modernizing the laws that govern planning in the U.S. This project, directed by the American Planning Association (APA), will ultimately produce for governors and legislators a legislative guidebook on the "best" of American planning and development management law and establish a continuing clearinghouse on such statutes. Working with a Directorate composed of representatives of eight national groups representing state and local officials and contributing agencies, the *Growing Smart* project will focus on updating urban and rural development planning and management statutes that currently govern planning. The project will cover a multitude of planning issues such as housing, transportation, land use, environment, economic development, inter- and intra-regional issues, and tax structures. The project also will provide an understanding of the coordination that must take place among the facets of planning. The *Growing Smart* project will improve FTA's ability to implement ISTEA and the Livable Communities Initiative by developing statutes that support transit-oriented development. The agencies currently providing funding and guidance for this project are: Department of Housing and Urban Development, APA, FHWA, FTA, Federal Emergency Management Agency, Environmental Protection Agency, Jackson Foundation, and the Annie E. Casey Foundation.

Safety and Security

Project Title: Child Safety Conference
Project Number: MD-26-7020 **Funding:** \$20,000
Start Date: June 1996 **Estimated Completion:** June 1996
Grantee/Contractor: U.S. Department of Transportation
Office of The Secretary of Transportation
400 7th Street, SW
Washington, DC 20590
FTA Project Manager: Carole Ferguson, TPM-30 **Phone:** 202/366-2896 **FAX:** 202/366-7951

Description: The Office of the Secretary of Transportation, the National Highway Traffic Safety Administration, FTA, and others have launched a Department-wide program to promote child safety. This project supports the Child Transportation Safety Conference of June 1996. The national conference focused on issues relating to children under age 16 and provided information on how to build a safe transportation environment at the community level. Conference discussions and presentation covered all forms of transportation including cars, planes, trains, boats, buses, escalators, subways, bicycles, trucks, and personal watercraft.

Project Title: Drug and Alcohol Testing Compliance Audits
Project Number: MA-90-9003 **Funding:** \$1,000,000
Start Date: June 1996 **Estimated Completion:** September 1997
Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square
Cambridge, Massachusetts 02142
Principal Investigator: William Hathaway **Phone:** 617/494-2081 **FAX:** 617/494-2684
FTA Project Manager: Jerry Fisher, TPM-30 **Phone:** 202/366-0248 **FAX:** 202/366-7951

Description: FTA has a statutory mandate which requires grantees to comply with its drug and alcohol rules. The project will conduct extensive onsite compliance audits of grantees to determine local drug and alcohol program deficiencies. Its goal is to assist grantees in their implementation of drug and alcohol testing and to help meet the FTA's oversight responsibilities.

Project Title: Drug and Alcohol Testing Management Information System
Project Number: MA-18-X018 **Funding:** \$561,000
Start Date: June 1996 **Estimated Completion:** September 1997
Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square
Cambridge, Massachusetts 02142
Principal Investigator: William Hathaway **Phone:** 617/494-2081 **FAX:** 617/494-2684
FTA Project Manager: Judy Z. Meade, TPM-30 **Phone:** 202/366-2896 **FAX:** 202/366-7951

Description: Grant recipients of federal funds are required to implement drug and alcohol testing programs for safety-sensitive employees. The FTA drug and alcohol rules also require

Safety and Security

Project Title: Moving Kids Safely Conference
Project Number: DC-26-9031 ***Funding:*** \$31,600
Start Date: July 1996 ***Estimated Completion:*** October 1996
Grantee/Contractor: U.S. Department of Transportation
Office of The Secretary of Transportation
400 7th Street, SW
Washington, DC 20590
Principal Investigator: Diane Wigle, S-1 ***Phone:*** 202/366-4301
FTA Project Manager: Carole Ferguson, TPM-30 ***Phone:*** 202/366-0219 ***FAX:*** 202/366-7951

Description: The Office of the Secretary of Transportation sponsored the first *Moving Kids Safely Conference* in May 1995. The conference focused exclusively on the safe transport of children under age 16. This project supports the Department's initiative to conduct a second child transportation safety conference. The national conference was designed to help participants identify child transportation safety problems, acquire tools needed to address those problems, and gain a commitment to return home and help build a safer community. Conference attendees included the following: child transportation safety and medical/public health professionals, policymakers, parents, teachers, and community leaders interested in becoming better informed and more proactive in educating their communities about child transportation safety. *Moving Kids Safely* builds on national, state, and local efforts to create a safer transportation environment for our nation's youth.

Project Title: Safety and Security Clearinghouse
Project Number: MA-26-9034 ***Funding:*** \$75,000
Start Date: June 1996 ***Estimated Completion:*** September 1997
Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square
Cambridge, Massachusetts 02142
Principal Investigator: William Hathaway ***Phone:*** 617/494-2081 ***FAX:*** 617/494-2684
FTA Project Manager: Carole Ferguson, TPM-30 ***Phone:*** 202/366-2896 ***FAX:*** 202/366-7951

Description: Transit planners, managers, federal officials and others are frequently faced with safety and security issues or problems about which there is much information, but the information is often scattered or not readily available. This project provides a Safety and Security Clearinghouse that serves as a focal point for customer requests for information, such as requests for published or unpublished materials, guidance and resources relating to transit safety and security. The clearinghouse function enables FTA to have a better rapport with the transit safety customer and to respond to customer's requests in a timely manner. The clearinghouse has been an ongoing activity supported by the FTA Office of Safety and Security since 1991. It has been significantly expanded in 1995 to include security, causal, grade crossing and cost data.

Safety and Security

Project Title: Safety and Security Training Program
Project Number: OK-26-7002 **Funding:** \$750,000
Start Date: September 1996 **Estimated Completion:** September 1997
Grantee/Contractor: Transportation Safety Institute
PO Box 25082
Oklahoma City, Oklahoma 73125-5050
Principal Investigator: Frank Tupper **Phone:** 415/954-3682 **FAX:**
FTA Project Manager: Edith Rodano, TPM-30 **Phone:** 202/366-2896 **FAX:** 202/366-3765

Description: The Transportation Safety Institute is a widely recognized training organization. It was created to support the U.S. Department of Transportation's operating administrations and other federal agencies having similar training needs. This project provides continuing support to the Transportation Safety Institute. It will enable the Institute to conduct 21 courses in transit-related areas, namely: Transit System Security, Bus Accident Investigation, Transit Explosives Incident Management, Instructor's Course in Alternative Fuels Safety, Safety Evaluation of Alternative Fuels Facilities and Equipment, Management of Transit Emergencies, and Transit Industrial Safety Management. The Institute disseminates information on safety and security techniques available to the transit industry through training. Since its founding in 1971, the Institute has graduated about 300,000 students. Current student training load is about 30,000 students annually. The Transit Division trains approximately 6,000 people annually.

Project Title: Safety and Security Training Courses
Project Number: MD-26-9004 **Funding:** \$138,000
Start Date: March 1996 **Estimated Completion:** September 1997
Grantee/Contractor: Computer Communications and Graphics Associates, Inc.
8484 Georgia Avenue, Suite 800
Silver Spring, Maryland 20910
Principal Investigator: Dr. Kamal N. Kama **Phone:** 301/587-6388 **FAX:** 301/587-6389
FTA Project Manager: Edith Rodano, TPM-30 **Phone:** 202/366-2896 **FAX:** 202/366-7951

Description: The Transportation Safety Institute was created to support the U.S. Department of Transportation's operating administrations and other Federal agencies having similar training needs. This project provides assistance to the Transit Division of the Transportation Safety Institute in areas such as: development and revision of FTA sponsored training courses, customer assistance, preparation of training plans, marketing transit safety and security courses, and computerized support for FTA's training program and the Institute.

Safety and Security

Project Title: Safety Management Information Statistics (SAMIS)
Project Number: MA-26-9033 **Funding:** \$100,000
Start Date: June 1996 **Estimated Completion:** April 1997
Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square
Cambridge, Massachusetts 02142
Principal Investigator: William Hathaway **Phone:** 617/494-2081 **FAX:** 617/494-2684
FTA Project Manager: Carole Ferguson, TPM-30 **Phone:** 202/366-0219 **FAX:** 202/366-7951

Description: This project provides for the continuation of SAMIS, a mandatory reporting system containing the mass transit safety data reported by the nation's transit systems under the FTA National Transit Database reporting system. Transit safety data are collected in four basic categories: Collisions, Derailments/Left Roadway, Personal Casualties, and Fires. The SAMIS project has been funded since 1990 when FTA converted from a voluntary safety reporting system, known as SIRAS, to a mandatory reporting requirement under the National Transit Database. While SIRAS covered only rapid rail operations, the National Transit Database report covers all transit operations. In 1994 data collection was expanded to include causal data, highway-rail grade crossing accidents, cost data and security data. The SAMIS report is separate from the National Transit Database report and consists of transit accident and casualty statistics reported by transit systems in the U.S. Normalized and trend data are presented along with basic transit accident and casualty statistics.

Project Title: Safety Review of WMATA Metrorail Operations
Project Number: MA-90-9005 **Funding:** \$110,000
Start Date: July 1996 **Estimated Completion:** July 1997
Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square
Cambridge, Massachusetts 02142
Principal Investigator: William Hathaway **Phone:** 617/494-2081 **FAX:** 617/494-2684
FTA Project Manager: Jerry Fisher, TPM-30 **Phone:** 202/366-0248 **FAX:** 202/366-7951

Description: A recent series of accidents and incidents at the Washington Metropolitan Area Transit Authority (WMATA) has raised questions about their commitment to safety. This project provides for a safety review of metrorail operations at WMATA. It focuses on commitment to safety and the extent to which safety is incorporated into the corporate structure. The Volpe Center will investigate accidents, incidents, and safety-related decisions of the past six months and identify any failures or lapses in supervision, training procedures, or communications that may have compromised rail safety. This safety review effort includes site inspections, employee interviews, as well as document reviews.

Safety and Security

Project Title: Transit Safety and Security Bulletin Board
Project Number: MA-26-9035 **Funding:** \$75,000
Start Date: June 1996 **Estimated Completion:** September 1997
Grantee/Contractor: Volpe National Transportation Systems Center
Kendall Square
Cambridge, Massachusetts 02142
Principal Investigator: William Hathaway **Phone:** 617/494-2081 **FAX:** 617/494-2684
FTA Project Manager: Jerry Fisher, TPM-30 **Phone:** 202/366-0248 **FAX:** 202/366-7951

Description: This project supports the continuation of the maintenance and operations of the FTA Transit Safety and Security Bulletin Board. The bulletin board is a user-friendly, menu-driven system with information accessible to users seven days a week, 24 hours a day. It is located at Volpe Center and can be accessed by any person with a computer and modem at 1-800-231-2061. The bulletin board has been developed to provide a central communication point for information on transit safety. It includes current items of interest such as training opportunities, FTA events of interest, FTA regulations, available safety and security publications, as well as other files for downloading.

Project Title: Transit Security Audits
Project Number: CA-90-7002-01 **Funding:** \$250,000
Start Date: February 1996 **Estimated Completion:** April 1998
Grantee/Contractor: AEGIR Systems
Los Angeles Regional Office
800 Wilshire Boulevard, Suite 350
Los Angeles, California 90017
Principal Investigator: David Blakeman **Phone:** 213/362-6930 **FAX:** 213/892-0361
FTA Project Manager: Carole Ferguson, TPM-30 **Phone:** 202/366-2896 **FAX:** 202/366-7951

Description: It is well known that crime prevention is primarily a local responsibility, regardless of whether the crime occurs in the street or on a city transit system. The FTA role in crime prevention is to provide capital and technical assistance to transit agencies in support of mitigating crime in their transit systems. This project provides for the conduct of site specific transit security audits of transit agency security problems. Systematic audits will be conducted to facilitate the assessment of existing security practices of public and private transit agencies.

Human Resources

Project Title: ADA Key Station Assessment Surveys
Project Number: VA-8001-02/03 **Funding:** \$261,000
Start Date: April 1995 **Estimated Completion:** April 1997
Grantee/Contractor: KRW Incorporated
1008 Pendleton Street
Alexandria, Virginia 22314
Principal Investigator: George Earnhart **Phone:** 703/836-4691 **FAX:** 703/836-0691
FTA Project Manager: Roberta Wolgast, TCR-20 **Phone:** 202/366-2285 **FAX:** 202/366-3475

Description: This project has served as a primary source of information regarding the level of compliance with the provisions of the Americans with Disabilities Act of 1990 (ADA) at new and key transit rail stations across the country. A sample number of stations was selected at each transit rail system for a survey in accordance with the ADA Accessibility Guidelines adopted in the DOT ADA regulation, 49 CFR Part 37. By the completion of the project, a total of 106 stations at 36 transit rail systems will have been assessed. The data collected will help FTA to provide technical assistance and guidance, where needed, to its grantees and to promote greater accessibility for the public.

Project Title: Cardozo High School TransTech Academy
Project Number: DC-26-2009-02 **Funding:** \$100,000
Start Date: June 1996 **Estimated Completion:** August 1997
Grantee/Contractor: District of Columbia Public Schools
415 12th Street
Washington, DC 20044
Principal Investigator: Shirley McCall **Phone:** 202/673-7753 **FAX:** 202/673-7753
FTA Project Manager: Eugene Jenkins, TCR-10 **Phone:** 202/366-0793 **FAX:** 202/366-3475

Description: This project exposes innercity students at Cardozo Senior High School to careers in the transit industry. The project activities of the TransTech Academy for the 1996-97 school term will provide the following activities: after-school work study internships at US DOT, educational field trips, development and offering of transit courses, and counseling and information to students regarding career and educational opportunities in transit. This project represents FTA support of the November 1993 Declaration of Partnership and Memorandum of Understanding between the U.S. Department of Transportation, the Federal Transit Administration, the Federal Highway Administration, and the Superintendent of the D.C. Public Schools (DCPS). This partnership alliance was formed by DCPS to obtain financial, technical, and staffing resources to aid and support the continued operation of the DCPS system's first TransTech Academy.

Human Resources

Project Title: Performance of Civil Rights Related Compliance Reviews of DOT/FTA Grant Recipients in Regions 1, 2, 3 and 4. Technical Support

Project Number: VA-90-8002 **Funding:** \$333,501

Start Date: January 1996 **Estimated Completion:** January 1998

Grantee/Contractor: CompuCon, Inc
1800 Diagonal Road, Suite 600
Alexandria, Virginia 22314

Principal Investigator: Sandra Davis **Phone:** 703/684-7619 **FAX:** 703/548-9446

FTA Project Manager: Beverly E. Sligh, TCR-20 **Phone:** 202/366-0816 **FAX:** 202/366-3475

Description: The FTA Office of Civil Rights is responsible for monitoring and enforcing the compliance requirements of the civil rights-related laws and affirmative action initiatives subject to the financial assistance programs of the FTA. Compliance reviews, which focus on civil rights-related activities, are performed to monitor and enforce grantee compliance with the laws and authorities which apply to the financial assistance provided by US DOT/FTA programs. The objective of this project is to acquire technical assistance and advisory services in the performance of civil rights-related compliance reviews of the US DOT/FTA grant recipients in Regions 1, 2, 3 and 4. This project will enable the Office of Civil Rights, the Regional Civil Rights Officers and the FTA Program Oversight staff to improve coordination and management of the oversight reviews identified in the FTA Risk Assessment Program.

Project Title: Performance of Civil Rights Related Compliance Reviews of DOT/FTA Grant Recipients in Regions 5, 6, and 7. Technical Support

Project Number: TX-90-8001 **Funding:** \$415,135

Start Date: January 1996 **Estimated Completion:** January 1998

Grantee/Contractor: John D. Gonzalez Associates, Inc.
PO Box 69044
San Antonio, Texas 78269-0444

Principal Investigator: John D. Gonzalez **Phone:** 210/981-8980 **FAX:** 210/755-4743

FTA Project Manager: Beverly E. Sligh, TCR-20 **Phone:** 202/366-0816 **FAX:** 202/366-3475

Description: The FTA Office of Civil Rights is responsible for monitoring and enforcing the compliance requirements of the civil rights-related laws and affirmative action initiatives subject to the financial assistance programs of the FTA. Compliance reviews, which focus on civil rights-related activities, are performed to monitor and enforce grantee compliance with the laws and authorities which apply to the financial assistance provided by US DOT/FTA programs. The objective of this project is to acquire technical assistance and advisory services in the performance of civil rights-related compliance reviews of the US DOT/FTA grant recipients in Regions 5, 6, and 7. This project will enable the Office of Civil Rights, the Regional Civil Rights Officers and the FTA Program Oversight staff to improve coordination and management of the oversight reviews identified in the FTA Risk Assessment Program.

Human Resources

Project Title: Performance of Civil Rights Related Compliance Reviews of DOT/FTA Grant Recipients in Regions 8, 9, and 10. Technical Support

Project Number: CA-90-8001 **Funding:** \$410,000

Start Date: September 1996 **Estimated Completion:** January 1998

Grantee/Contractor: Gardner Consulting Planners
22010 South Wilmington Avenue, Suite 300
Carson, California 90745

Principal Investigator: Adrienne Sasser-Gardner **Phone:** 310-522-9584 **FAX:** 310/522-9587

FTA Project Manager: Beverly E. Sligh, TCR-20 **Phone:** 202-366-0816 **FAX:** 202/366-3475

Description: The FTA Office of Civil Rights is responsible for monitoring and enforcing the compliance requirements of the civil rights-related laws and affirmative action initiatives subject to the financial assistance programs of the FTA. Compliance reviews, which focus on civil rights-related activities, are performed to monitor and enforce grantee compliance with the laws and authorities which apply to the financial assistance provided by US DOT FTA programs. The objective of this project is to acquire technical assistance and advisory services in the performance of civil rights-related compliance reviews of the US DOT FTA grant recipients in Regions 8, 9, and 10. This project will enable the Office of Civil Rights, the Regional Civil Rights Officers and the FTA Program Oversight staff to improve coordination and management of the oversight reviews identified in the FTA Risk Assessment Program.

Project Title: Summer Transportation Internship Program for Diverse Groups

Project Number: DC-26-2012 **Funding:** \$55,000

Start Date: June 1996 **Estimated Completion:** October 1997

Grantee/Contractor: Federal Highway Administration
Personnel Operations Division, HPT-22
Washington, DC 20590

Principal Investigator: Lorraine Day, HPT-22 **Phone:** 202-366-4336 **FAX:** 202/366-3749

FTA Project Manager: Linda King, TCR-20 **Phone:** 202/366-2285 **FAX:** 202/366-3475

Description: Summer Transportation Internship Program for Diverse Groups is funded by the various administrations of the U.S. Department of Transportation, namely, FHWA, FTA, FRA, and RSPA. The training program is designed to introduce women, African-Americans, persons with disabilities, and persons representing various ethnic backgrounds to the professions, disciplines, and employment opportunities in the transportation sector. The program goals are to ensure equal opportunity in all US DOT-assisted programs and to promote diversity in the workforce, the transportation industry and supporting professions, where minorities and persons with disabilities are underrepresented. The recruitment effort targets college students at the sophomore level and above. This project will help to draw a larger pool of trained personnel from diverse groups (African-American, Hispanic, etc.) into the Nation's transit industry. A transportation agenda of research, work experience, and travel will introduce students from diverse groups to the industry.

Human Resources

Project Title: Transportation Career Academies
Project Number: CA-26-2001-02 **Funding:** \$100,000
Start Date: September 1996 **Estimated Completion:** June 1997
Grantee/Contractor: Los Angeles County Metropolitan Transit Authority
818 West 7th Street, Suite 300
Los Angeles, California 90017
Principal Investigator: Carolyn Drummond **Phone:** 213/224-2658 **FAX:** 213/244-1702
FTA Project Manager: Eugene Jenkins, TCR-10 **Phone:** 202/366-0793 **FAX:** 202/366-3475

Description: This project enables the Transportation Career Academies to continue to develop transportation-related education courses at three innercity high schools in Los Angeles, namely, Locke, North Hollywood, and Wilson High Schools. The academies will help prepare students for transportation-related occupations and technical careers.

National Transit Database

Project Title: National Transit Database: Data Collection and Technical Support

Project Number: MD-23-7001 **Funding:** \$1,545,553,000

Start Date: October 1996 **Estimated Completion:** October 1997

Grantee/Contractor: DIGICON Corporation
6707 Democracy Boulevard, Suite 402
Bethesda, Maryland 20817-1129

Principal Investigator: Thomas Black **Phone:** 301/588-9676 **FAX:** 301/588-8682

FTA Project Manager: Linda Barnes, TPM-10 **Phone:** 202/366-6161 **FAX:** 202/366-7951

Description: The National Transit Database provides for the establishment of a uniform system of transit accounts and records and for a reporting system for the collection and dissemination of public transit financial and operating data by uniform categories. Under the National Transit Database (formerly the Section 15 program), transit systems submit detailed summaries of their financial and operating data to FTA. Information currently submitted by approximately 600 transit agencies is reviewed for accuracy/consistency and entered into a computer database from which the following annual reports are prepared: *Transit Profiles Report*, *National Transit Summaries and Trends*, and *Data Tables*. Basically, the National Transit Database reporting system assists in providing information on which is based planning for public transportation services and making public sector investment decisions at the Federal, state, and local levels. It is also used as a management tool and assists in planning, designing, and evaluating transit related projects. This project provides continuing technical and administrative support to the management and operation of the National Transit Database in terms of data collection and validation, database management and maintenance, software development, and annual report production. For additional information, see the FTA Home Page of the Internet World Wide Web at the following address
<http://www.fta.dot.gov>

Transit Cooperative Research Program

Project Title: Transit Cooperative Research Program
Project Number: DC-26-7052 **Funding:** \$7,610,000
Start Date: July 1996 **Estimated Completion:** May 2001
Grantee/Contractor: National Academy of Sciences
Transportation Research Board
2101 Constitution Avenue, NW
Washington, DC 20418
Principal Investigator: Robert J. Reilly **Phone:** 202/334-3225 **FAX:** 202/334-2006
FTA Project Manager: Gwendolyn Cooper, TRI-30 **Phone:** 202/366-0198 **FAX:** 202/366-3765

Description: This project provides for the selection and conduct of projects under the fifth annual agenda of the Transit Cooperative Research Program (TCRP). The TCRP focuses on issues significant to the transit industry, with emphasis on developing near-term research solutions to a variety of transit problems involving facilities, service concepts, operations, planning, policy, human resources, maintenance, and administrative practices. The TCRP was authorized in the ISTEA of 1991. The program was created on May 13, 1992, by a memorandum agreement between three participants: the Transit Development Corporation, educational and research arm of the American Public Transit Association; the FTA, and the Transportation Research Board of the National Academy of Sciences. Research problem statements are solicited periodically but may be submitted to the Transportation Research Board by anyone at anytime. See FTA Home Page at <http://www.fta.dot.gov>

National Transit Institute

Project Title: National Transit Institute Program
Project Number: NJ-26-2901-05 ***Funding:*** \$3,000,000 annually
Start Date: May 1992 ***Estimated Completion:*** June 1998
Grantee/Contractor: Rutgers, The State University
National Transit Institute
120 Albany Street, Suite 705
New Brunswick, New Jersey 08901
Principal Investigator: Alan J. Gibbs ***Phone:*** 908-932-1700 ***FAX:*** 908-932-1700
FTA Project Manager: Charles Morison, TRI-30 ***Phone:*** 202-366-0245 ***FAX:*** 202-366-3765

Description: This is the fifth year of Federal support for the National Transit Institute (NTI), a project established under the Intermodal Surface Transportation Efficiency Act of 1991 with a mission to promote, develop, and deliver high quality education and training for persons engaged in Federal-aid transit work in order to improve public transit in the United States. Rutgers University established the NTI to serve the training and development needs of the transit industry. NTI, in cooperation with the FTA, develops and conducts training for state and local transit employees on a variety of topics relevant to the industry.

The fifth year effort continues activities in three broad areas of service: Federal Program Training, Clearinghouse, and Industry Defined Training. NTI will hold its third annual Transit Trainers Workshop bringing together transit training personnel from throughout the industry to learn the latest techniques in training and share training experiences on the job. The Transit Fellows Program began in 1996. This competitive program identifies technical experts in the industry and supports presentation of their expertise at industry meetings and conferences.

The Transit Academy, started in 1995, will be conducted for a second year in cooperation with the New Jersey Transit Corporation. The academy is designed to give new transit professionals a first hand look at all elements of transit service from the perspective of the provider. This is a residential program and is presented in a lecture study tour format.

Finally, NTI and FTA are working together to develop and present a variety of workshops and seminars designed to assist the transit industry in understanding and implementing Advanced Public Transportation Systems (APTS). Programs on GIS, AVL, Smart Card technology and Innovative technologies are just a few of the topics under development for future presentation. See FTA Home Page on the Internet World Wide Web at <http://www.fta.dot.gov>

Rural Transit Assistance Program

Project Title: Rural Transit Assistance Program
Project Number: MO-26-9000/NH-26-9000 ***Funding:*** \$700,000
Start Date: April 1996 ***Estimated Completion:*** December 1997
Grantee/Contractor: American Public Works Association
1301 Pennsylvania Avenue, NW
Washington, DC 20004
Principal Investigator: Beth Denniston/APWA ***Phone:*** 202/393-0137 ***FAX:*** 202/737-9153
Principal Investigator: Christopher Morgan/NHDOT ***Phone:*** 603/271-2564 ***FAX:*** 603/271-6767
FTA Project Manager: M. M Churchman, TPM-10 ***Phone:*** 202/366-2053 ***FAX:*** 202/366-7951

Description: The American Public Works Association (APWA) will continue to provide technical support to the FTA National Rural Transit Assistance Program (RTAP), the RTAP Review Board, and the State RTAP Program. The RTAP National Program provides a variety of quality technical assistance products and training services. The project supports the FTA goal of promoting the development of intermodal transportation resources at federal, state, and local levels. This project continues to pursue this goal by expanding the training, technical assistance, and research to improve the delivery of transit services in rural areas. APWA will continue to administer the program's outreach activities, namely the RTAP National Resource Center and peer-to-peer technical assistance to state, local, and rural transit operators. Overall, the program supports the state RTAP managers by developing training modules, conducting periodic conference calls, holding regional train-the-trainer sessions, and performing liaison and outreach functions. A separate project with the New Hampshire DOT will support the *13th National Conference on Rural Public and Intercity Bus Transportation* to be held September 1997.

University Transportation Centers Program

Project Title: University Transportation Centers Program
Project Number: DC-11-1105 ***Funding:*** \$6,000,000
Start Date: May 1995 ***Estimated Completion:*** June 1998
Grantee/Contractor: United States Department of Transportation
Research and Special Programs Administration
Office of University Research and Education, Room 10309
Washington, DC 20590
Principal Investigator: Patricia Cass, DUR-1 ***Phone:*** 202/366-5442 ***FAX:*** 202/366-3671
FTA Project Manager: Charles Morison, TRI-30 ***Phone:*** 202/366-0245 ***FAX:*** 202/366-3765

Description: This is an interagency agreement with the Research and Special Programs Administration (RSPA) of the U.S. Department of Transportation to continue administering the University Transportation Center Program (UTCPC). There are 13 Centers in the UTCPC, one in each of the ten standard Federal regions and three National Centers (Mack-Blackwell National Rural Transportation Study Center at University of Arkansas in Fayetteville, National Center for Management, Research, and Development at Morgan State University in Baltimore, and National Center for Transportation and Industrial Productivity at New Jersey Institute of Technology in Newark). This program contributes to transportation education, research, and technology transfer. To reach its goal of attracting the best students to the transportation field, the UTCPC promotes transportation study among groups underrepresented in the field. The UTCPC's strong education component reflects the needs of the transportation industry for more inter- and multi-disciplinary professionals in the field.

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