

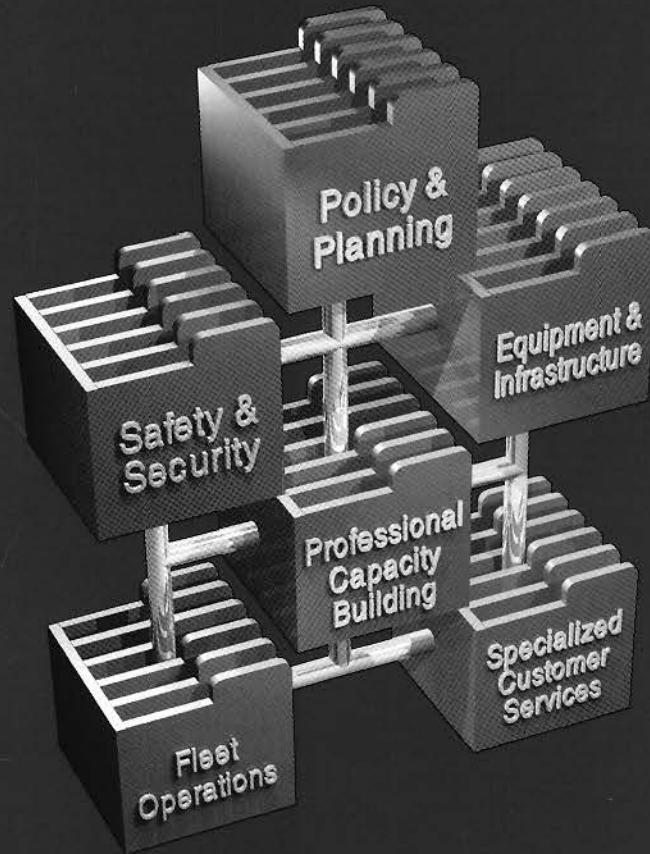


U.S. Department  
of Transportation



# Transit Research & Technology Programs

## DIRECTORY OF FY 1998 PROJECT AWARDS



*Ride the Information Highway on Public Transit*

<http://www.fta.dot.gov>

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1999





## A Message From the Acting Administrator

*Nuria I. Fernandez*

*I want to thank all of our partners in the transit community and the staff of the Federal Transit Administration (FTA) for your dedicated service and commitment during my tenure as the Federal Transit Deputy Administrator. We look forward to continuing the partnership as we strive together to ensure transit's prominent role in making all America a more livable community.*

*I renew the promise I made when I joined FTA in July 1997, to provide the best possible leadership and management to serve the public interest by providing safe, efficient and economical transit services.*

*Indeed, we have accomplished much in the last six years and I pledge to continue the legacy of my most dedicated predecessor, Gordon J. Linton and to work with President Clinton, Vice President Gore and Secretary Rodney Slater as a forceful advocate for transit. We share a core belief that public transportation plays a key role in creating a more vital and a more livable America that has empowered communities across our nation.*

*As we approach the 21<sup>st</sup> century, I pledge to work with you in every effort to ensure that America's communities will be better for America's citizens. Our transportation systems in this country now are in better shape than they have been in years.*

*But, there is more to do. Let us continue to move onward, in partnership, as we provide leadership, technical assistance and financial resources for safe, technologically advance public transportation which enhances all citizens' mobility and accessibility, improves America's communities and natural environment, and strengthens the national economy.*



November 1, 1999

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U.S. Department  
of Transportation  
**Federal Transit  
Administration**

***Transit Research & Technology  
Programs: Directory of FY 1998  
Project Awards***

***October 1999***

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***Ride the Information Highway on Public Transit***  
*[<http://www.fta.dot.gov>]*



# ***Transit Research & Technology Project Awards - FY 1998***

## **FOREWORD**

*Transit Research & Technology Project Awards* is a directory of transit projects initiated during fiscal year 1998 (which ended September 30, 1998) by the Federal Transit Administration of the United States Department of Transportation. The directory's purpose is to inform and increase the awareness of the transit industry and the general public of the nature and scope of work underway to improve all aspects of transit for transit customers. In these projects, FTA works in partnership with non-profit organizations, the private sector, federal, state and local agencies to improve the nation's quality of life through innovative, customer-friendly, and community-oriented public transit facilities and services. The projects listed in this directory are designed to help achieve the goal of the FTA research and technology program--providing faster, more cost effective, comfortable, convenient, safe, and reliable transit service.

The 71 projects recorded in this FY 1998 directory are organized within the six emphasis areas of the *FTA Transit Research & Technology Five-Year Plan*--Safety & Security; Equipment & Infrastructure; Fleet Operations; Specialized Customer Services; Policy & Planning; and Professional Capacity Building. Each project entry is profiled separately and includes the following information: project title, number and duration; grantee/contractor name and street address; principal investigator name, phone and fax numbers; FTA project monitor name, phone and fax numbers, and email address; funding source and dollar amount; and summary description of each project listed in the directory. This directory also provides an index of awards by state and project number.

Recognizing that electronic information networks are global and contemporary ways of sharing information more directly with the community, FTA is building an electronic body of knowledge that has educational and training value that will extend into the next millennium. We encourage you to *ride the information highway on public transit*. Visit the FTA Internet Website at [<http://www.fta.dot.gov>]. This document is also available on the Web.

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# Table of Contents

<b>Foreword</b> .....	<b>ii</b>
<b>Safety &amp; Security</b> .....	<b>1</b>
Children Riding Transit .....	1
Drug and Alcohol Testing Compliance Audits.....	2
Drug and Alcohol Testing Management Information System.....	2
Fault Tree Analysis of Commuter Rail.....	3
Moving People Safely Conference .....	3
Safety and Health Aspects of Fuel Systems and Technologies.....	3
Safety and Security Training Program.....	4
Safety Management Information System (SAMIS).....	4
Security Plan/Emergency Management Survey.....	5
State Safety Oversight Compliance .....	5
Survey of Seat Belt Usage .....	6
Transit Safety and Security Clearinghouse.....	6
Transit Safety and Security Bulletin Board and Internet Website.....	7
Transit Security Audits .....	7
<b>Equipment &amp; Infrastructure</b> .....	<b>8</b>
<b>Bus Equipment</b> .....	<b>8</b>
Advanced Technology Transit Bus.....	8
CALSTART Consortium Electric Vehicle Program .....	9
Domestic Fuel Cell Transit Bus Development Program.....	9
DUETS Demonstration of Universal Electric Transportation Subsystems .....	10
Zinc-Air Battery Bus Demonstration Project .....	11
Altoona Bus Testing Management Oversight.....	11
Baseline Advanced Design Transit Coach Specifications Update .....	12
<b>Rail Technology &amp; Systems</b> .....	<b>13</b>
Charleston Monobeam Project.....	13
Low-Speed Magnetic Levitation Technology Study .....	14
<b>Civil Infrastructure</b> .....	<b>15</b>
Turnkey Project Demonstration Program .....	15
Turnkey Project Demonstration Program Support .....	16
Innovative Finance & Joint Development Project.....	16
<b>Fleet Operations</b> .....	<b>17</b>
APTS Program Technical Support.....	17
APTS Mobile Showcase Project.....	18
Assessing ITS Applications in Non-Urbanized Welfare Transit Systems.....	18
Autonomous Dial-A-Ride Transit Planning Model. Phase 3.....	19
Bus Rapid Transit Initiative Technical Support.....	19
Development of International Standards for Public Transit .....	20
Intelligent Vehicle Initiative – Transit IVI Needs Assessment .....	20
Lane Change & Merge/Collision Avoidance - Transit IVI .....	20
Multi-User Smart Card Guidelines & Specifications .....	21
Utilizing GIS Technology in TANF Programs.....	21
Rear Impact Collision Mitigation - Transit IVI.....	22

## Table of Contents

Regional Application of Rural ITS in Florida Coordinated Transportation System .....	22
Transit ITS Professional Capacity Building .....	23
Transit Signal Priority Workshop.....	23
<b>Specialized Customer Services .....</b>	<b>24</b>
Accessible Community Transportation - Project ACTION.....	24
Community Works Program at Hennepin County, Minnesota.....	25
DOT/DHHS Joint Coordinating Council – Technical Support .....	25
National Joblinks Employment Transportation Initiative.....	26
National Rural Transit Assistance Program.....	26
National Rural Transit Database Update .....	27
Welfare-to-Work Outreach Activities.....	27
<b>Policy &amp; Planning .....</b>	<b>28</b>
<i>Metropolitan Policy Development .....</i>	<i>28</i>
Commercial Benefits of Transit Services in the United States.....	28
Congestion Management Benefits of Rapid Transit.....	29
Conditions, Performance & Needs Data.....	29
Transit Performance Monitoring System.....	29
<i>Planning &amp; Project Development.....</i>	<i>31</i>
Colorado Metropolitan Planning Organization Study .....	31
Conference on Transportation Issues in Large U.S. Cities.....	31
Livable Communities Initiative Consortium Support.....	31
<b>Professional Capacity Building .....</b>	<b>33</b>
National Transit Institute .....	33
Transit Cooperative Research Program .....	34
University Transportation Centers.....	35
Small Business Innovation Research Program .....	36
<i>Human Resources .....</i>	<i>37</i>
Cardozo Senior High School TransTech Academy.....	37
DOT Summer Transportation Internship Program .....	37
LACMTA Transportation Career Academies.....	38
Performance of Civil Rights Related Compliance Reviews of DOT/FTA Grant Recipients.....	38
Performance of Civil Rights Related Compliance Reviews of DOT/FTA Grant Recipients.....	39
United Cerebral Palsy High School/High Tech.....	39
<i>Information &amp; Communication.....</i>	<i>40</i>
FTA Internet Website Support.....	40
National Transit Database – Technical Support .....	40
Research and Technology Five-Year Plan Development .....	41
TEA-21 National Outreach Conference.....	41
Technology Sharing – Printing & Distribution of Research Products.....	41
Transit Construction Roundtable Contract Support.....	42
Transit Research Discussion & Dissemination Services .....	42
<b>Index by State &amp; Project Number.....</b>	<b>44</b>

# *Safety & Security*

## *Safety & Security*

The Safety and Security Program places special emphasis on the promotion of public health and safety by working toward elimination of transit-related deaths, injuries, property damage, and the improvement of personal security and property protection. This is accomplished by promoting transit safety and security in the transit community through training, technical assistance, innovation, and technology. FTA encourages transit systems to collect and disseminate data on safety and security issues, identify and implement best practices, and develop and implement comprehensive system safety and security program plans covering passengers, transit agency personnel, vehicles, and facilities.

The main focus areas of this program are Railroad Grade-Crossing Safety, Information Security, Crime Prevention and Anti-Terrorism. New railroad grade crossing technologies and strategies are being explored and tested to provide a safe environment for crossing users. Transit research is underway to test and evaluate advanced technologies (including chemical and biological detection systems) to reduce transit crime and counter terrorism targeted at transit patrons, employees and facilities. FTA will demonstrate innovative security technologies, system design, and rail and bus vehicle enhancements that will lead to new techniques that enhance the personal security of the riding public.

Although human factors research in practice is conducted by individual operators and improvements made locally, human factors research is also being conducted on the federal level under a One US DOT approach--for example vehicle safety. In addition, the FTA-sponsored National Transit Institute offers safety courses for transit operators that include human factors, such as fitness-for duty. Clearly, safety is top priority at the U.S. Department of Transportation.

### ***Project MA-26-5008.00: Children Riding Transit***

***Funding:*** \$50,000

***Duration:*** April 1998 - April 1999

***Performer:*** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

***Principal Investigator:*** William Hathaway

***Phone:*** 617.494.2081 ***Fax:*** 617.494.2684

***FTA Project Monitor:*** Carole Ferguson, TPM

***Phone:*** 202.366.0219 ***Fax:*** 202.366.7951

***Email:*** [carole.ferguson@fta.dot.gov]

***Description:*** There is growing concern among safety experts, educators, the Congress and National Transportation Safety Board regarding the expanding use of public transit by school children. Nationally, school children comprise a significant percentage of public transit ridership. Few of the safety procedures and little of the equipment mandated for school buses are present on public transit vehicles. The objective of this research is to determine whether school children are afforded the same level of operational safety on public transit vehicles as children riding on school buses, and whether additional safety measures are needed on public transit vehicles. This research will identify, document, and evaluate critical issues associated with the safe transport of school children on public transit. Data will be collected and analyzed to determine student ridership and accident levels. The project effort includes working with transportation agencies and community organizations to identify causes of accidents and

## *Safety & Security*

recommend strategies that minimize accidents involving school children riding on public transit vehicles.

### ***Project MA-90-5003.00: Drug and Alcohol Testing Compliance Audits***

***Funding:*** \$1,525,000

***Duration:*** February 1997 - March 1999

***Performer:*** Volpe National Transportation Systems Center

Kendall Square, Cambridge, Massachusetts 02142

***Principal Investigator:*** William T. Hathaway

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***Email:*** [jerry.fisher@fta.dot.gov]

***Description:*** Audits are conducted to assist transit agencies in achieving a drug- and alcohol-free workforce in the interest of the health and safety of transit employees and the traveling public. Federal regulations requiring grantees to implement drug and alcohol testing stipulate that FTA funds should support only grantees in compliance with these regulations, and FTA oversight responsibilities. This project provides ongoing support for the Drug and Alcohol Testing Compliance Audits program to ensure grantees' compliance with federal drug and alcohol testing regulations. Compliance audits are conducted on sites of transit agencies receiving federal funds and are based on a comprehensive review process, covering every aspect of an agency's drug and alcohol testing program. Audit findings and best practices are summarized periodically, published, and distributed to the transit community.

### ***Project MA-26-5001.00: Drug and Alcohol Testing Management Information System***

***Funding:*** \$750,000

***Duration:*** April 1998 - April 1999

***Performer:*** Volpe National Transportation Systems Center

Kendall Square, Cambridge, Massachusetts 02142

***Principal Investigator:*** William T. Hathaway

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***FTA Project Monitor:*** Judy Meade, TPM

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***Email:*** [judy.meade@fta.dot.gov]

***Description:*** The FTA Drug and Alcohol Program requires recipients of federal funds to establish and implement drug and alcohol testing programs for safety-sensitive employees, maintain records, and annually report test results to the FTA. Test results are stored, analyzed, published, and distributed through the Drug and Alcohol Management Information System (DAMIS). This project provides ongoing support for DAMIS-- a comprehensive and timely database and reporting system containing results of transit agency drug and alcohol testing programs. The project provides for collection, maintenance, and analysis of grantees annual test reports, as well as for compiling and publishing results of the drug and alcohol testing program as an annual report. Test reports serve as a primary source for evaluating the effectiveness of federal regulations and for supporting future modifications. Data collected under this program are also used to meet information needs in planning for safe public transportation and in making policy decisions at all levels of government.

## *Safety & Security*

### **Project MA-26-5005.00: Fault Tree Analysis of Commuter Rail**

**Funding:** \$100,000

**Duration:** April 1998 - April 1999

**Performer:** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

**Principal Investigator:** William T. Hathaway

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**Email:** [jerry.fisher@fta.dot.gov]

**Description:** Enhanced safety and reliability of commuter rail systems depend on identifying equipment and human factors safety risks. This fault tree analysis project is designed to enhance the safety and reliability of commuter rail systems. Using the best available resources, both within and outside the Department of Transportation, the research will develop guidance for FTA field personnel and project management oversight consultants in their review and assessment of the safety ramifications of commuter rail projects sponsored by FTA. The project will also identify project areas that will benefit from the application of failure modes and human effects analyses. The project is a response to the National Transportation Safety Board's interest in the development of procedures for undertaking a system safety analysis of commuter rail capital improvement projects having operational safety implications.

### **Project DC-26-5002.00: Moving People Safely Conference**

**Funding:** \$25,000

**Duration:** October 1998 - October 1999

**Performer:** U.S. Department of Transportation

Office of the Secretary of Transportation, Washington, DC 20590

**FTA Project Monitor:** Carole Ferguson, TPM

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**Description:** The Office of the Secretary of Transportation, in partnership with the other operating administrations in the Department of Transportation, has been conducting an ongoing department-wide program to promote safety--Moving People Safely Conference. The national conference, conducted in 1998, highlighted the need and provided a forum for sharing ideas and resources on how to build a safe transportation environment at the community level. This national conference has evolved in scope and content--from the 1995 Moving Kids Safely Program to the 1998 Moving People Safely Conference which now includes all community-based transportation safety issues. This project provided for FTA conference participation and materials support. .

### **Project MA-26-7039.00: Safety and Health Aspects of Fuel Systems and Technologies**

**Funding:** \$175,000

**Duration:** June 1998 - June 1999

**Performer:** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

**Principal Investigator:** David Spiewak

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**FTA Project Monitor:** Jeffrey Mora, TRI

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**Description:** The purpose of this research is to assess the safety and health aspects of fuels, fuel systems, and battery technologies for conventional and alternative fuel buses, hybrid electric buses, and electric buses. The project focus is on the collection and organization of safety and

## *Safety & Security*

performance data on engine propulsion technologies (including technologies such as turbine, natural gas, hybrid electric, fuel cell, batteries, etc.), engine performance, emission levels, and alternative fuels. Project results include providing information helpful to the transit industry in terms of developing and revising standards for the next generation of buses and bus subsystems, improving air quality, and reducing the levels of greenhouse gases and other pollutants.

### ***Project OK-26-5001.00: Safety and Security Training Program***

***Funding:*** \$1,000,000 ***Duration:*** February 1998 - February 1999

***Performer:*** Transportation Safety Institute

6500 South MacArthur Boulevard, Oklahoma City, Oklahoma 73125

***Principal Investigator:*** Cheryl A. Ogren ***Phone:*** 405.954.3682 ***Fax:*** 405.954.0367

***FTA Project Monitor:*** Edith Rodano, TPM ***Phone:*** 202.366.0191 ***Fax:*** 202.366.7951

***Email:*** [edith.rodano@fta.dot.gov]

***Description:*** This project provides ongoing support to the Transit Safety and Security Division of the Transportation Safety Institute — an organization created to support the goals of the operating administrations of the US DOT. The mission of the Transit Safety and Security Division is to provide training that improves the operational safety of transit systems and personal security of the riding public and transit workforce. More than 4,000 transit professionals are trained annually. Training includes a myriad of courses in the area of safety and security and is conducted at various locations in the country. The curriculum includes such courses as bus and rail accident investigation, transit system security, emergency management planning, substance abuse management, train-the-trainer, alternative fuels, fatigue awareness, and response to chemical, biological, and nuclear transit incidents, and others. Since it began in 1976, the transit program has trained over 60,000 students. In 1998 the Institute established a certification program for Transit Safety and Security Specialists. For additional information, link up with the Institute through the FTA Internet Website at [<http://www.fta.dot.gov>].

### ***Project MA-26-5002.00: Safety Management Information System (SAMIS)***

***Funding:*** \$100,000 ***Duration:*** April 1998 - April 1999

***Performer:*** Volpe National Transportation Systems Center

Kendall Square, Cambridge, Massachusetts 02142

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***FTA Project Monitor:*** Carole A. Ferguson, TPM ***Phone:*** 202.366.2019 ***Fax:*** 202.366.7951

***Email:*** [carole.ferguson@fta.dot.gov]

***Description:*** The FTA Safety Management Information System (SAMIS) is a requirement of the National Transit Database reporting system. SAMIS has been funded since 1990 when FTA converted it from a voluntary safety reporting system, known as SIRAS, to a mandatory reporting requirement of the National Transit Database. This project provides ongoing support for the evolution, maintenance, and operation of SAMIS--a reporting system containing transit safety and security data reported by the nation's transit systems. The project includes publication of an annual report--a compilation and analysis of transit safety and security statistics reported through the National Transit Database. The category *Safety* includes collisions and non-collisions (derailments, personal casualties, and fire) data. *Security* data is based on the FBI's Uniform Crime Reporting Systems and includes violent crime, property crime, and other offenses. Additional data collection includes highway-grade crossing accidents and accident cost

## *Safety & Security*

information. SAMIS is currently under review and will be modified to address new data requirements, such as children riding public transit and accidents associated with alternative fuels use.

***Project VA-26-5002.00: Security Plan/Emergency Management Survey***

***Funding:*** \$100,000

***Duration:*** April 1998 - July 1999

***Performer:*** C<sup>2</sup>Multimedia, Inc., Crescent Plaza  
7700 Leesburg Pike, Falls Church, Virginia 22043

***Principal Investigator:*** Mark Morgan

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***FTA Project Monitor:*** Iyon Lyles, TPM

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***Description:*** Recent events, such as the Los Angeles earthquake, the Midwest floods of 1993, and the release of gas in the Tokyo subway system, have raised questions concerning the capability of transit systems to respond to security threats and emergencies, and whether or not a functional plan is currently in place, tested on a regular basis for handling such incidents. This project will help transit agencies develop, test, and strengthen their security and emergency management plans. It provides for an emergency management survey, designed to provide baseline information helpful for strengthening transit industry's response capability to emergencies and security incidents in a timely and efficient manner. A survey of both the security and emergency management plans of bus systems in cities with a population of 200,000 or more will be conducted. The research will address security incidents and emergencies of all types (earthquakes, floods, hurricanes, etc.) as well as terrorist threats and other intentional criminal act against the transit system, its riders and employees.

***Project MA-90-5004.00: State Safety Oversight Compliance***

***Funding:*** \$650,000

***Duration:*** February 1997 - March 1999

***Performer:*** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

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***Description:*** FTA is required by statute to assess State Safety Oversight agencies (SSO)—independent oversight agencies designated by states to oversee the safety of rail fixed guideway systems not regulated by the Federal Railroad Administration. This project establishes the framework for these assessments by defining information requirements and developing a tool to assist in the assessments. The project enables FTA to conduct a series of onsite audits to determine SSO agencies' compliance with federal requirements, as well as help states improve the effectiveness of oversight programs. Data collection instruments will be developed, including an automated compliance tracking system for storing and analyzing information. The automated system will have the capability to report on the status of a single oversight agency as well as provide summary information for all or selected agencies. This system will enable FTA to assess safety reviews, monitor corrective action, as well as disseminate the information and data to interested parties. Basically, audits help guide the states by ensuring that the program is implemented according to the standards that they set forth.

## *Safety & Security*

### **Project DC-26-5003.00: Survey of Seat Belt Usage**

**Funding:** \$50,000

**Duration:** October 1998 - September 1999

**Performer:** National Highway Traffic Safety Administration

U.S. Department of Transportation, Washington, DC 20590

**FTA Project Monitor:** Edith Rodano, TPM

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**Description:** Increasing seat belt use is the easiest and most effective way of cutting the highway death toll. According to the National Highway Traffic Safety Administration, seat belts are 45 percent effective in reducing fatal injuries in a crash. However, the number of transportation-related deaths in the country caused by the failure to use seat belts is still too large and unacceptable. This interagency agreement supports the National Highway Traffic Safety Administration's efforts to conduct a survey of passenger seat belt usage in the United States, and to determine the number of traffic deaths and injuries caused by failure to use seat belts. Project activities are designed to significantly improve seat belt usage, increase the knowledge base on seat belt usage, and reduce the number of transportation-related deaths and injuries caused by failure to use seat belts.

### **Project MA-26-5003.00: Transit Safety and Security Clearinghouse**

**Funding:** \$75,000

**Duration:** April 1998 - April 1999

**Performer:** Volpe National Transportation Systems Center

Kendall Square, Cambridge, Massachusetts 02142

**Principal Investigator:** William T. Hathaway

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**Description:** Safety and security information on all transit modes is required by planners, managers, and federal, state, and local officials to assess safety and security and capital needs. Collection and dissemination of information helps ensure that transit agencies have the tools to provide patrons and employees with a safe and secure environment. This project supports the continued operation and maintenance of the transit safety and security clearinghouse. The clearinghouse serves as the focal point for customers information needs, such as printed materials and other available safety and security products and related technologies. This clearinghouse function enables FTA to have direct contact with safety and security customers, acquire a better understanding of customer needs, and provide a quick-response mechanism for information dissemination. Basically, customer assistance is provided in the form of guidelines, technical studies, and research reports, including state-of-the art and lessons learned as well as simulation models, and referrals to other industry experts.



## *Safety & Security*

***Project MA-26-5004.00: Transit Safety and Security Bulletin Board and Internet Website***

***Funding:*** \$100,000

***Duration:*** April 1998 - April 1999

***Performer:*** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

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***Description:*** This project supports the ongoing management and operation of the FTA transit safety and security bulletin board and the Internet website. These systems have been developed to provide the transit industry a central communication point for information on transit safety and security. Both the electronic bulletin board and the website require constant management to ensure the timeliness and accuracy of information conveyed to users, such as training opportunities, meetings, DOT and FTA hearings, regulations, and research reports. Both systems are user-friendly and enable users to maintain a dialog on safety and security issues, and to access information seven days a week, 24 hours a day. The bulletin board can be accessed through the FTA website or an 800 number [1-800-231-2061]. More than 300 callers per month use the bulletin board's menus for security information, and/or information on safety and security technologies. Transit systems, emergency response organizations, and federal regional offices use the bulletin board and internet website as an important communications link. The bulletin board is currently being upgraded to include additional information on training opportunities and transit emergencies.

***Project CA-90-5002.00: Transit Security Audits***

***Funding:*** \$850,000

***Duration:*** July 1998 - July 1999

***Performer:*** AEGIR Corporation  
800 Wilshire Boulevard, Suite 350, Los Angeles, California 90017

***Principal Investigator:*** David Blakeman

***Phone:*** 213.362.6930 ***Fax:*** 213.892.0361

***FTA Project Monitor:*** Carole A. Ferguson, TPM

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***Email:*** [carole.ferguson@fta.dot.gov]

***Description:*** This project provides ongoing support for transit security audits of transit agencies. Transit security audits are aimed at reducing the vulnerability of transit systems from consequences of intentional harm to the system, employees, and users. Audits are voluntary and designed to assess and improve existing security practices of public transit agencies, as well as assist those systems which manifest serious adverse security trends. Once a transit agency volunteers for this program, the audit process begins with a pilot audit, followed in six months by the first audit, with the second and third audits conducted after 12-month intervals. Basically, audits help develop and improve system security, implement a security program tailored to agency needs, and prepare rail systems for state safety oversight reviews. All rail transit agencies are invited to participate in this voluntary onsite audit of security programs.

## *Equipment & Infrastructure – Bus Equipment*

### *Equipment & Infrastructure*

The goal of FTA's Equipment and Infrastructure program area is to achieve the highest level of passenger service and comfort by applying technology to increase the capacity and quality of transit service. This program area's goals include reducing life-cycle costs of vehicles, systems, and facilities, and assisting domestic manufacturers and service industries to enhance their competitive position in the global marketplace. In this program area, FTA is pursuing advancements in bus propulsion systems, enhancements in bus testing, adaptation of radio-based communication and control systems, and continuous dialogue with the bus and rail industry through research, tests, deployment, standards development, technical assistance, and training. Turnkey, Joint Development and Innovative Finance Demonstration projects are supported under this program area. In addition, FTA plans to explore, develop and use advanced simulation systems. Simulation is used to improve products and ensure customer satisfaction, as well as reduce the time needed to design, evaluate, and test a product. These techniques yield substantial savings in time and effort.

### **Bus Equipment**

The Bus Equipment Program addresses a number of research and technology needs related to the future design, safety, and operation of the next generation of transit buses and associated components. Program objectives are to foster development and deployment of advanced vehicle technologies for transit to improve air quality, reduce greenhouse gas emissions and transit consumption of petroleum, reduce operating and maintenance costs, improve transit safety, and encourage economic growth and competitiveness in the emerging advanced vehicle technology industry. Over the next several years, this program will work on advanced transit vehicle technologies, including advanced technology subsystems, small durable transit bus technologies, advancements in bus testing, and deployment of clean fuel buses and technologies. The program will work to accelerate the commercial introduction of low-emission, high-efficiency vehicles into the transit industry--thus, taking the lead in deployment of advanced, environmentally friendly technologies for all vehicles.

#### ***Project CA-26-7002.05: Advanced Technology Transit Bus***

***Funding:*** \$10,000,000

***Duration:*** March 1998 - March 1999

***Performer:*** Los Angeles County Metropolitan Transportation Authority  
PO Box 194, Los Angeles, California 90053

***Principal Investigator:*** Arthur Crabtree

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***FTA Project Monitor:*** Christina Gikakis, TRI

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***Description:*** The Advanced Technology Transit Bus (ATTB) is the nation's most comprehensive advancement in heavy-duty public transit buses. The major technology development program with the Los Angeles County Metropolitan Transportation Authority is now complete--representing state-of-the-art advancements in heavy-duty bus subsystems. The program was initiated in 1992 with the objective of developing a lightweight, low-floor, low-emissions, user-friendly transit bus, using advanced technologies developed in the aerospace and defense industries. Six lightweight, low-floor, low-emission prototype vehicles were produced, tested, and demonstrated. The prototype bus is more than 10,000 pounds lighter than a typical

## ***Equipment & Infrastructure – Bus Equipment***

30,000-pound bus. Savings from weight reduction include lower fuel costs and less road damage. The low-weight bus also incorporates a highly efficient fuel-saving drive system, aerospace construction, accessible design, and electric-drive propulsion technology into a single vehicle design. One ATTB prototype has been delivered to Metropolitan Transit Authority of Harris County, Texas--three advanced subsystem technologies (energy storage system, dynamic suspension system, and wheel motors) will be integrated onto the bus and undergo evaluation. Although the manufacture of ATTB was not an original program objective, some manufacturers are pursuing ATTB-type technologies for the U.S. transit bus market. Overall, the program has served to catalyze the industry to pursue advanced vehicle technologies for transit.

### ***Project CA-26-0021.09: CALSTART Consortium Electric Vehicle Program***

***Funding:*** \$1,461,000

***Duration:*** March 1998 - March 1999

***Performer:*** CALSTART, Inc.

3601 Empire Avenue, Burbank, California 91505

***Principal Investigator:*** Paul Helliker

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***FTA Project Monitor:*** Shang Q. Hsiung, TRI

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***Description:*** Electric drive systems enable transit buses to exceed current and anticipated emission standards. Their low-emission characteristics may enable transit buses to operate in areas off-limits to diesel buses. This project provides ongoing support for CALSTART to develop and demonstrate electric vehicle technologies that reduce vehicle emissions, and improve transportation services and operations. CALSTART will continue its role as a catalyst for the development of a globally competitive United States-based advanced transportation technology industry. It will provide clean vehicle information to fleets, conduct outreach efforts, and assist fleet operators and airports with programs to incorporate clean fuel vehicles into their fleets. CALSTART will continue development of three promising zinc-air battery technologies, initiate development of ultracapacitor technology for hybrid electric vehicle applications, coordinate a demonstration and deployment program of advanced technology clean fuel transit buses in the San Francisco Bay Area, and demonstrate and deploy hybrid-electric shuttle buses. CALSTART will evaluate the performance of clean fuel buses already in service at the Yosemite Area Regional Transportation District. Information on alternative fuel vehicle technologies, case studies and other information will be developed and disseminated through the CALSTART website [<http://www.CALSTART.org>]. Ultimately, this project aims to research and develop prototype models that lead to the production of market-ready models.

### ***Project DC-26-7002.07: Domestic Fuel Cell Transit Bus Development Program***

***Funding:*** \$3,896,800

***Duration:*** January 1998 - January 2000

***Performer:*** Georgetown University

3700 "O" Street, NW, Washington, DC 20057

***Principal Investigator:*** James Larkin

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***Description:*** The FTA Fuel Cell Transit Bus Program is developing one of the leading candidates for fuel cell applications in transit. Fuel cells offer near zero emissions and significant reductions in green house gas emissions, as well as more efficient power generation and improved reliability and lower maintenance costs. This project provides ongoing support to

## ***Equipment & Infrastructure – Bus Equipment***

Georgetown University for development of a U.S. produced fuel cell propulsion system for transit buses. Georgetown will provide preliminary engineering and development activities necessary for the domestic and commercial production of fuel cell powered, full-sized transit buses. The program supports development of a domestic industry for the production of these fuel efficient and environmentally friendly vehicles. Both the phosphoric acid fuel cell and proton exchange membrane fuel cell (PEMFC) technologies have been developed for bus propulsion systems operating on liquid fuels. This research will evaluate 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. It will also design, develop, and test laboratory scale hardware of promising fuel processor technology to be used with a membrane hydrogen clean-up technology. This project is a multi-year fuel cell program and includes support from the Defense Advanced Research Projects Agency (DARPA).

### ***Project NM-26-7000.03: DUETS Demonstration of Universal Electric Transportation Subsystems***

***Funding:*** \$565,030

***Duration:*** May 1998 - May 2000

***Performer:*** DUETS Consortium, Nova Bus Incorporated

PO Box 5670 (R.I.A.C.), Roswell, New Mexico 88202-5670

***Principal Investigator:*** David Reddy

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***FTA Project Monitor:*** Christina Gikakis, TRI

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***Description:*** This research program fosters development and deployment of electric drive propulsion systems, useable in a wide range of transit applications to improve air quality, reduce greenhouse gas emissions, transit operating and maintenance costs, and other improvements. The purpose of the Demonstration of Universal Electric Transportation Subsystems (DUETS) Consortium was to develop and test an advanced hybrid-electric drive system, suspension components, and vehicle control networks for transit bus applications. This project will complete the testing, demonstration, data collection and evaluation of DUETS hybrid-electric propulsion system, semi-active suspension system, and vehicle control system. Phase 2 activities included installation of diesel-electric hybrid drive system, optimization of vehicle management system, integration of a semi-active suspension system, and vehicle testing. The bus successfully completed a 30-day revenue service test in New York City--logging more than 1,000 miles. Emissions and efficiency tests were also completed, demonstrating the benefits of hybrid-electric transit buses. This project completes the DUETS program, developed with funding from the Defense Advanced Research Projects Agency in Phase 1, and FTA funding in Phase 2.

## ***Equipment & Infrastructure – Bus Equipment***

### ***Project NV-26-7001.00: Zinc-Air Battery Bus Demonstration Project***

***Funding:*** \$2,000,000

***Duration:*** March 1998 - September 1999

***Performer:*** Electric Fuel Corporation,  
885 Third Avenue, Suite 2900, New York, New York 10022

***Principal Investigator:*** Julie Brokaw

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***Description:*** The objective of this project is to support research on the applicability of zinc-air battery propulsion systems for heavy-duty vehicles such as transit buses. Zinc-air battery technology offers a high energy and cost effective alternative to existing lead-acid batteries. This technology is being tested in Europe on small and medium-sized vehicles. The project effort includes modification and testing of an all-electric 40-foot transit bus, modified with suitable zinc-air battery propulsion system, to investigate the applicability of zinc-air battery propulsion systems for transit buses. Project activities will include assessment of performance, operating and maintenance costs, life cycle costs, and commercialization potential. High-density energy sources that are viable alternatives to lead-acid batteries and capable of providing longer ranges, help in public acceptance and successful introduction of electric propulsion vehicles.

### ***Project MA-90-7018.01: Altoona Bus Testing Management Oversight***

***Funding:*** \$ 300,000

***Duration:*** March 1998 - April 1999

***Performer:*** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

***Principal Investigator:*** David Spiewak

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***FTA Project Monitor:*** Tim Johnson, TRI ***Phone:*** 202.366.0212 ***Fax:*** 202.366.3765

***Email:*** [tim.johnson@fta.dot.gov]

***Description:*** The New Model 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. In FY 98 several important activities took place at the Bus Testing and Research Center (BTRC) located in Altoona, Pennsylvania. As in past years, testing of new bus models continues at the center to support the requirement that any new bus model purchased with Federal funds be tested and a report produced documenting test results. Since January of 1998, testing has been completed on eight bus models. An additional eight bus models are currently undergoing testing and are scheduled for completion by the end of 1999. The Bus Testing Center currently tests buses for safety, structural integrity, durability, performance, maintainability, noise, and fuel economy. In addition, under a contract with the FTA, the center is expanding its facilities to accommodate additional tests. When all modifications are completed, the center will have facilities capable of testing vehicles that use gasoline, diesel fuel, compressed natural gas, liquefied natural gas, methanol/ethanol, propane, and battery-powered electricity. This project will improve the reliability of delivery of goods and services to the transit industry and ensure compliance with the New Model Bus Testing Program requirements.

## *Equipment & Infrastructure – Bus Equipment*

**Project DC-26-7017.03: Baseline Advanced Design Transit Coach Specifications Update**

**Funding:** \$75,000

**Duration:** December 1998 - July 1999

**Performer:** American Public Transit Association

1201 New York Avenue, NW, Washington, DC 20005

**Principal Investigator:** Karol Popkin

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**Description:** This project is designed to improve the process for purchasing transit buses and, simultaneously lowering cost of vehicles. It is anticipated that developing a standard purchase specification could significantly reduce and simplify the time required and complexity of the procurement process, resulting in lower cost vehicles. This project enables APTA, in partnership with the transit industry, to complete the development of 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 project will complete Phase 2, development of technical specifications for 40-foot, high-floor, diesel buses only. Alternative configurations will be developed under a Transit Cooperative Research Program project. Phase 1, now complete, developed a comprehensive set of procurement guidelines. Both documents, technical specifications and procurement guidelines, are being developed through a consensus process agreed to by the industry. The final result may be lower cost vehicles and a streamlined procurement process--saving the industry both time and money. Both the technical specifications and procurement guidelines for transit buses will be posted on the APTA website at [<http://www.apta.com>].

# *Equipment & Infrastructure – Rail Technology & Systems*

## **Rail Technology & Systems**

The rail technology and systems component emphasizes activities such as radio-based communication and control systems, research on special guideway systems, and safety-related issues. Advances in vehicle and train control technologies enable transit agencies to provide higher quality service at lower costs. One example is the spread-spectrum radio system that has been adapted to train control--the Advanced Automatic Train Control System (AATC). AATC, being developed, tested and deployed at the Bay Area Rapid Transit District (BART), involves a partnership of BART, the Defense Advanced Research Projects Agency, FTA, Raytheon and Harmon Industries. Precise location of a train in real time and use of software for safety-critical applications allow trains to run at closer separation distances while improving safety. The system allows fast recovery in case of unexpected events and permits energy management for reducing operating costs.

To improve fixed guideway system capacity and safety without adding more tracks or modifying stations at enormous cost, FTA initiated the operational testing and deployment of radio-based or communications-based train control (CBTC) systems. CBTC systems are also applicable for grade-crossing protection and optimization of rail and road vehicle throughput at grade-crossings. Special emphasis is placed on the use of new technologies to ensure safety of equipment operations and passenger security. Research is also underway on specialty guided technologies such as urban maglev and suspended monorail systems.

### ***Project SC-03-7001.00: Charleston Monobeam Project***

***Funding:*** \$1,495,150

***Duration:*** November 1998 – June 2002

***Performer:*** City of Charleston, South Carolina  
36 John Street, Charleston, South Carolina 29403

***Principal Investigator:*** Christine Burr

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***Description:*** This project supports the efforts of the City of Charleston to undertake the development of a futuristic elevated urban transit system called System 21. Futrex Inc., a Charleston, South Carolina based company, is developing the System 21 "Monobeam" technology--a modular urban transit system that snaps together and resembles a monorail. But instead of two separate rails for trains running in opposite directions, System 21 hangs the cars on either side of a single triangular beam--thus allowing two-way traffic on one slender triangular guideway. Operating 16 feet above the city streets, electric vehicles with a unique cantilevered suspension can carry up to 52 passengers each, and can provide capacity of more than 20,000 passengers per hour per direction when operated in trains of up to 10 cars in length. This grade separated, bi-directional, low capital and low operating cost monobeam transit system will be built incrementally to serve several communities in the area. The City of Charleston determined that System 21 offers the best solution for a transit system in the Charleston area. Futrex is planning a 1.4-mile operational prototype in the vicinity of the Charleston International Airport, with the help of its consortium partners.

## ***Equipment & Infrastructure – Rail Technology & Systems***

***Project PA-26-7003.00: Low-Speed Magnetic Levitation Technology Study***

***Funding:*** \$974,000

***Duration:*** June 1998 - June 2000

***Performer:*** Port Authority of Allegheny County

2235 Beaver Avenue, Pittsburgh, Pennsylvania 15233

***Principal Investigator:*** James Barthen

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***FTA Project Monitor:*** Jeffrey G. Mora, TRI

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***Description:*** Low-speed magnetic levitation (MAGLEV) technology is a new area of transit research and technology study. Numerous studies have been conducted to explore the cost and feasibility of high-speed (up to 300 mph) MAGLEV systems for intercity service, but very little recent research has been conducted on low-speed (below 75 mph) MAGLEV technology for urban applications. At the same time, continuing traffic congestion and renewed interest in advanced technology for fixed guideway transit have stimulated interest in the potential of low-speed (below 75 mph) MAGLEV systems as an alternative to existing technologies. This project provides support to the Port Authority of Allegheny County to conduct research and determine the feasibility of the application of a low-speed MAGLEV system in an urban environment.



## *Equipment & Infrastructure – Civil Infrastructure*

### **Civil Infrastructure**

Change orders are a significant factor in cost overruns of transit construction projects. Better design and estimating techniques, improved understanding of the geologic impacts of tunneling, greater attention to risk management, and better methods for scheduling project construction can reduce the need for these changes. Creating incentives that reduce the financial advantage of change orders, while maintaining the integrity of the project, will reduce cost overruns. Research is currently underway to identify ways to reduce the need for change orders and resulting cost and schedule overruns. FTA is already researching and demonstrating the usefulness of one method—turnkey project delivery. Partnering agreements and fast track scheduling are other methods being tested by transit agencies. FTA will document best practices among these other project delivery innovations as well as turnkey. Further research will identify other ways to reduce the need for change orders and resulting cost and schedule overruns.

#### ***Project MA-26-7043.00: Turnkey Project Demonstration Program***

***Funding:*** \$100,000

***Duration:*** September 1998 – December 1999

***Performer:*** Planning Collaborative, Inc.

273 Summer Street, Boston, Massachusetts 02210

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***Description:*** Turnkey is a new and promising project delivery system to help expedite schedule, control costs, and better allocate and manage implementation risks. The method is currently being demonstrated in the Bay Area Rapid Transit District's (BART) turnkey project. This project provides contractor oversight management support for BART's San Francisco International Airport Extension Turnkey Project. Oversight support includes monitoring project activities and reporting on significant issues, including identification of problem areas and measures to maintain project time and cost schedules, recommendations for resolving problems, and information for determining project benefits. In addition, this oversight support will help FTA monitor, report, and evaluate the efficiencies of the turnkey procurement method to promote advanced technologies and decrease delivery cost of new fixed-guideway transit systems through improved project management and control. Overall, turnkey is an innovative transit procurement technique that allows a public entity to contract with a single private entity to deliver a complete and operational product--a fixed guideway system or extension of an existing one. Design and build stages in turnkey are integrated into a single procurement and completion contract.

## *Equipment & Infrastructure – Civil Infrastructure*

### **Project MA-26-7040.00: Turnkey Project Demonstration Program Support**

**Funding:** \$150,000

**Duration:** September 1998 – December 1999

**Performer:** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

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**Description:** The FTA Turnkey Projects Demonstration Program was established under the Intermodal Surface Transportation Efficiency Act to determine if the turnkey procurement method can advance new technologies and produce cost savings on new transit projects through improved project management and control. Congress authorized FTA to undertake at least two transit projects demonstrating turnkey procurement practices. This project provides management oversight services for three of the five FTA-sponsored turnkey projects currently underway—BART San Francisco International Airport Extension, New Jersey Hudson-Bergen Light Rail Transit, and San Juan Tren Urbano Rail Transit. Management oversight activities include project development and management control of each phase of the project, including reporting on construction financing, cost control and other elements as well as development of a Turnkey Best Practices Manual. This project will assist FTA in monitoring turnkey projects and evaluating efficiencies.

### **Project MA-26-7041.00: Innovative Finance & Joint Development Project**

**Funding:** \$125,000

**Duration:** June 1998 - June 1999

**Performer:** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

**Principal Investigator:** Terry Sheehan **Phone:** 617.494.3047 **Fax:** 617.494.3260

**FTA Project Monitor:** Stewart McKeown, TRI **Phone:** 202.366.0244 **Fax:** 202.366.3765

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**Description:** The FTA Innovative Finance and Joint Development project is designed to assist planning agencies, municipalities, and transit organizations plan and implement financing and joint development innovations, and leverage funds to finance the construction, operation or maintenance of transit infrastructure. Innovative financing involves the application of a variety of established and newly emerging financing techniques. Effective use of these techniques can reduce financing cost of transit infrastructure, at the same time reducing the overall cost of providing transit service. Joint development projects focus on removing obstacles to partnerships between transit systems and private sector firms--fostering more effective use of transit system owned property, securing a revenue stream for the transit system, increasing ridership, and shaping community land use patterns. This research includes monitoring, data collection, evaluation and documentation of best practices of joint development projects in four cities: Atlanta, Baltimore, Portland, and Washington DC. Emphasis is on joint development program criteria--property disposition, value capture, type of transit-oriented development, ridership impact, operating and maintenance cost, leasing, as well as on facility access, site preparation, environmental compliance, and local and/or state land use policies. A final Best Practices report will be developed based on information obtained from the evaluation and case study of the four joint development projects.

## *Fleet Operations*

### *Fleet Operations*

The FTA Fleet Operations program area focuses on shaping America's future by ensuring a transportation system that is accessible, integrated, efficient, and offers flexibility of choices. The goal of the Fleet Operations program is to increase efficiency, average speed, and throughput of transit fleets through technological improvements. Major elements of this program area are: Transit Capacity and Quality of Service, Transit Intelligent Transportation Systems, Bus Rapid Transit Initiative, and Mixed Rail Corridor Operations.

FTA targets the urban, suburban, and rural travel markets--introducing technological and other innovations to increase the quality and capacity of all transit modes operating both in mixed traffic and on exclusive rights-of-way. This program area enhances knowledge of the factors affecting the flow of transit, pedestrian, and other vehicular traffic flow and customer service quality. In addition, the Fleet Operations research and technology program supports FTA efforts in special events, including the 2002 Winter Olympics in Salt Lake City, and efforts of the U.S. Department of the Interior and National Park Service to reduce auto travel in the parks.

#### ***Project MA-26-7007.05: APTS Program Technical Support***

***Funding:*** \$150,000

***Duration:*** October 1997 - September 1998

***Performer:*** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

***Principal Investigator:*** Robert Ow

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***FTA Project Monitor:*** Ron Boenau, TRI

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***Description:*** This project continues support for the Advanced Public Transportation Systems (APTS) program--the transit component of the Department's Intelligent Transportation Systems (ITS) Program. Support includes technical assessment of new research for advanced public transportation systems including, fleet management, traveler information services, fare payment media and transportation demand management services. These advanced systems offer great potential for increasing the integration of multiple transit systems operations, information services and fare payment. The technologies also allow for the integration of transit with highway and traffic agencies, as well as integration with other non-transportation organizations involved with the transport of people, namely, the health and human services industry. The project also builds a body of knowledge and information from the experience of transit agencies, reporting on deployment of APTS technologies and state-of-the-art. Technical staff support will include reviewing, analyzing, and coordinating technical information in support of the APTS program, as well as preparation of concept papers and technical presentations. Both the *APTS State-of-the-Art Report*, identifying selected applications of APTS technologies, and the *APTS Deployment Report*, summarizing state of deployment in over 500 transit agencies, will be written and published. Products delivered under this project assist transit agencies in the planning, design, procurement, and implementation of ITS transit technologies. This project is funded by the DOT/ITS Joint Program Office.

## *Fleet Operations*

### **Project MA-26-7007.04: APTS Mobile Showcase Project**

**Funding:** \$125,000

**Duration:** June 1998 - June 1999

**Performer:** Volpe National Transportation Systems Center

Kendall Square, Cambridge, Massachusetts 02142

**Principal Investigator:** Robert Ow

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**Description:** This is the first time in transit history that a technology showcase-on-wheels will be developed to tour the country and demonstrate advanced technology products developed through FTA program activities. This project enables FTA and the Volpe Center to develop an overall design for the Advanced Public Transportation Systems (APTS) Mobile Showcase. A 40-foot transit bus, equipped with latest APTS technologies, will tour the country and demonstrate the latest advancements in information and communication technologies at various transit and ITS conferences, US DOT regional and divisional offices, transit systems, and at other events and locations. Showcasing includes demonstrations, lectures, video presentations, literature distribution, group discussions, and other activities. The bus will be equipped with and demonstrate the following APTS technologies: automatic vehicle locator, computer aided dispatch, signal priority, electronic payment, automated voice enunciator, in-vehicle LED signs, automatic passenger counters, traveler information kiosk, and other state-of-the-art electronic devices. This project is funded by the DOT/ITS Joint Program Office.

### **Project ND-26-7000.00: Assessing ITS Applications in Non-Urbanized Welfare Transit Systems**

**Funding:** \$100,000

**Duration:** November 1998 – December 1999

**Performer:** Upper Great Plains Transportation Institute, North Dakota University

PO Box 5074, Fargo, North Dakota 58105

**Principal Investigator:** Jill Hough

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**FTA Project Monitor:** William Wiggins, TRI

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**Description:** This project supports the Upper Great Plains Transportation Institute's effort to conduct a comprehensive review of the efficiency of intelligent transportation systems (ITS) in transit applications in rural area welfare-to-work transportation programs. Transit ITS, which includes the rural component, is a comprehensive approach to applying advanced technologies to transit to improve customer service and reduce system and operating costs. This project focus is on assessing the application of advanced technologies in rural welfare-to-work transportation in the areas of advanced traveler information, fleet management, and electronic payment systems. Information on the efficiency of these ITS technologies in rural welfare-to-work transit applications will be obtained from literature reviews, site visits to welfare-to-work transport systems, and telephone surveys. Project findings will be analyzed and reported in a final assessment report. This project is funded by the DOT/ITS Joint Program Office.

## *Fleet Operations*

### ***Project TX-03-4504.00: Autonomous Dial-A-Ride Transit Planning Model. Phase 3***

***Funding:*** \$200,000

***Duration:*** September 1998 – September 2000

***Performer:*** Corpus Christi Regional Transportation Authority  
812 Alameda, Corpus Christi, Texas 78404-2933

***Principal Investigator:*** Thomas Niskala

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***FTA Project Monitor:*** Charlene Wilder, TRI

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***Description:*** This project provides ongoing support to Corpus Christi Regional Transportation Authority to develop an autonomous dial-a-ride (ADART) planning model for the area. ADART is a computerized demand-responsive transportation system that provides door-to-door service, automated fare collection, and computerized diagnostic service. This project includes development of a peer review group consisting of transit operators and transportation experts to review ADART's implementation in Corpus Christi. Phase 3 activities include planning for a controlled service demonstration in Corpus Christi, involving three vehicles operating in a low density area. Previous phases (now complete) included a technology assessment and system design effort, as well as software development and deployment, and evaluation of the project. Overall, ADART holds the promise of providing better service than conventional dial-a-ride and at lower operating costs, increasing driver productivity, redeploying vehicles from one service area to another almost without cost, and reducing total manpower needs. A summary report of key findings and discussion points will be produced at the conclusion of the project.

### ***Project MA-26-7038.02: Bus Rapid Transit Initiative Technical Support***

***Funding:*** \$100,000

***Duration:*** January 1998 - September 1999

***Performer:*** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

***Principal Investigator:*** Judith Schwenk

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***Description:*** The new Bus Rapid Transit Initiative is aimed at introducing bus rapid transit in the United States by demonstrating, in partnership with local entities, how a combination of vehicle and ITS technologies, traffic engineering, and urban design enhancements can significantly increase speed and ridership, as well as reduce travel time, operating costs, and emissions. The program focus is on providing an integrated, well-defined transit system with operating speeds and service reliability comparable to those of rail transit. This technical support project fosters development of BRT by conveying information about the concept, how and why it was implemented in Curitiba, Brazil, why it is needed in the United States, and how it can improve bus operations. Technical support covered a range of activities in 1998, namely—developing and publicizing the BRT Initiative and providing technical assistance to FTA, transit agencies, cities, and others. Technical support also included preparation of resource papers, informational documents, and other information dissemination activities. Under this project, a one-day summit meeting took place January 15, 1998, Washington, DC, to launch the BRT Initiative. The summit meeting acquainted participants with the BRT concept as applied in Curitiba, why it is worth demonstrating in the United States, and BRT planning, design, and operational issues.

## *Fleet Operations*

**Project MA-26-7007.05: Development of International Standards for Public Transit**

**Funding:** \$100,000

**Duration:** May 1998 – September 1999

**Performer:** Volpe National Transportation Systems Center

Kendall Square, Cambridge, Massachusetts 02142

**Principal Investigator:** Michael Sheehan

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**Description:** This project supports the continuing participation of four United States experts in the development of international standards for public transit. The International Organization for Standards Technical Committee (ISO/TC) 204 for Transport Information and Control Systems is responsible for developing international intelligent transportation systems standards. The ISO/TC204's international Working Group (WG) 8 is chartered with developing international ITS standards in the areas of public transit and emergency services. The counterpart of ISO/TC204 WG8 in the United States is the United States Working Advisory Group (WAG) 8, which is responsible for developing United States positions on international standards and for initiation of international standards based on United States standards. This project is funded by the DOT/ITS Joint Program Office.

**Project MA-26-7007.05: Intelligent Vehicle Initiative – Transit IVI Needs Assessment**

**Funding:** \$200,000

**Duration:** May 1998 - September 1999

**Performer:** Volpe National Transportation Systems Center

Kendall Square, Cambridge, Massachusetts 02142

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**Description:** This project enabled the Volpe Center to develop a transit needs assessment for the Transit Intelligent Vehicle Initiative (IVI). The Transit IVI program is designed to accelerate development and availability of advanced safety information systems that help drivers process information, make decisions, and operate buses and paratransit vehicles safely and efficiently. The program goal is to integrate driver assistance and user information functions to permit vehicles and fleets to operate safely and efficiently. This needs assessment project is intended to identify and prioritize transit industry requirements and problems relating to solutions involving Transit IVI technologies. Project activities include an accident, technology, and benefits analysis. The project results include a set of Transit IVI research priorities. This project is funded by the DOT/ITS Joint Program Office.

**Project PA-26-7006.00: Lane Change and Merge/Collision Avoidance - Transit IVI**

**Funding:** \$650,000

**Duration:** April 1999 - September 2000

**Performer:** Pennsylvania Department of Transportation

555 Walnut Street – 9<sup>th</sup> Floor, Harrisburg, Pennsylvania 17101-1900

**Principal Investigator:** Christopher J. Johnston

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## *Fleet Operations*

**Description:** This lane change and merge/passing collision avoidance feature will provide various levels of support for detecting and warning the driver of the presence of vehicles and objects in adjacent lanes. Building on previous work performed for NHTSA on lane change and merge/passing collision avoidance, the project team will develop a set of performance specifications for transit buses. The new focus will be on transit vehicle characteristics, the operating environment, driver capabilities, and driver inattention. Lane change accidents are one of the top four types of transit vehicle incidents. This Transit IVI user services project includes development of a prototype system with the capability to validate the performance specifications. This project is funded by the DOT/ITS Joint Program Office.

### **Project MA-26-7007.05: Multi-User Smart Card Guidelines and Specifications**

**Funding:** \$400,000

**Duration:** August 1998 - August 1999

**Performer:** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

**Principal Investigator:** Mike Dinning

**Phone:** 617.494.2422 **Fax:** 617.494.2684

**FTA Project Monitor:** Sean Ricketson, TRI

**Phone:** 202.366.6678 **Fax:** 202.366.3765

**Email:** [sean.ricketson@fta.dot.gov]

**Description:** This is a three-year project intended to develop guidelines and specifications for multi-application payment systems for public transit. The guidelines and specification developed under this project will simplify the process which transit operators use to partner with financial institutions and other potential card users. The project effort will also define how applications on a multi-use transit card are installed and administered, define processing capabilities and security features, as well as define how data is stored and managed. Project specifications will be coordinated with the developing ISO standard for contactless cards. Both the guidelines and specifications will be developed in coordination with transit and financial services industries. Transit agencies and other entities interested in partnering with transit in a multi-application payment system will use the final product. The next step will be development of a model regional electronic payment infrastructure. This project is funded by the DOT/ITS Joint Program Office.

### **Project MA-26-7053.00: Utilizing GIS Technology in TANF Programs**

**Funding:** \$100,000

**Duration:** February 1998 – February 2001

**Performer:** Bridgewater State College  
Moakley Center, Bridgewater, Massachusetts 02325

**Principal Investigator:** Lawrence Harman

**Phone:** 508.279.6144 **Fax:**

**FTA Project Monitor:** William Wiggins, TRI

**Phone:** 202.366.4991 **Fax:** 202.366.3765

**Email:** [william.wiggins@fta.dot.gov]

**Description:** Some localities are currently using geographic information system (GIS) mapping technology to match welfare recipients and low-income workers with transit and jobs. With the assistance of GIS mapping, case workers can see where most public assistance recipients live, along with location of employment opportunities, daycare centers, and available public transportation. The objective of this agreement is to support Bridgewater State College efforts to develop transit GIS databases for installment on the Internet World Wide Web to promote and enhance the personal mobility of individuals leaving the welfare rolls. A transit ITS application and trip itinerary planning will be integrated with information technology of agencies administering Temporary Assistance for Needy Families (TANF) Programs and welfare

## ***Fleet Operations***

programs. The research will review the feasibility of developing GIS computer desktop applications--providing case workers with a one-stop capability to map out bus routes, trip itineraries, and employment support services--thus linking welfare recipients and low-income individuals to transit, job opportunities, and other employment related services.

### ***Project TX-26-7007.00: Rear Impact Collision Mitigation - Transit IVI***

***Funding:*** \$400,000

***Duration:*** August 1998 – September 2000

***Performer:*** Houston Metropolitan Transportation Area  
6922 Old Katy Road, Houston, Texas 77024

***Principal Investigator:*** Bill Kronenberger ***Phone:*** 713.881.3030 ***Fax:*** 713.881.3028

***FTA Project Monitor:*** Brian P. Cronin, TRI ***Phone:*** 202.366.8841 ***Fax:*** 202.366.3765

***Email:*** [brian.cronin@fta.dot.gov]

***Description:*** The objective of the Transit Intelligent Vehicle Initiative (IVI ) user services project is to develop a set of performance specifications for transit rear-impact collision warnings. One of the most frequent accidents in transit bus operations is when a vehicle collides with a bus from behind. Rear collision warning is a relatively unexplored area. Therefore, accident data will be analyzed as well as data characterizing behavior of drivers behind buses, as related to bus maneuvers. A warning system will also be developed, one providing a longer time window for drivers behind the bus to observe and react. The performance specifications will include both functional and component level specifications. This project is funded by the DOT/ITS Joint Program Office.

### ***Project FL-26-7009.00: Regional Application of Rural ITS in Florida's Coordinated Transportation System***

***Funding:*** \$200,000

***Duration:*** February 1998 – February 2001

***Performer:*** Florida Commission for the Transportation Disadvantaged  
605 Suwannee Street, MS-49, Tallahassee, Florida 32399-0450

***Principal Investigator:*** Mary Constiner ***Phone:*** 850.488.6036 ***Fax:*** 850.488.1330

***FTA Project Monitor:*** Charlene Wilder, TRI ***Phone:*** 202.366.1066 ***Fax:*** 202.366.3765

***Email:*** [charlene.wilder@fta.dot.gov]

***Description:*** This project provides ongoing support to the Florida Commission for the Transportation Disadvantaged to provide regional, multiagency application of intelligent transportation systems (ITS) technologies to selected rural areas of Florida's coordinated transportation system-- northern counties of Flagler, St. John, and Putnam, and the neighboring counties of Marion and Alachua. This electronically coordinated transit service provides transportation for persons needing transportation to job training, employment, medical service, nutrition purposes, rehabilitation, and other life-sustaining functions. ITS technologies considered include an automatic vehicle locating (AVL) system using geographic positioning systems, and automated scheduling, dispatching, and billing software. If successful, the project may serve as a national model for initiating a regional, electronically coordinated transit service in rural areas. Overall, ITS technologies are effective in improving the management and reliability of transit services and increasing customer satisfaction. This project is funded by the DOT/ITS Joint Program Office.



## *Fleet Operations*

**Project MA-26-7007.05: Transit ITS Professional Capacity Building**

**Funding:** \$450,000

**Duration:** August 1998 – August 1999

**Performer:** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

**Principal Investigator:** Joe LoVecchio

**Phone:** 617.494.2131 **Fax:** 617.494.2959

**FTA Project Monitor:** Sean Ricketson, TRI

**Phone:** 202.366.6678 **Fax:** 202.366.3765

**Email:** [sean.ricketson@fta.dot.gov]

**Description:** One of the fundamental program areas featured in the *FTA Research and Technology Five-Year Plan* is professional capacity building, which includes providing resources for improving the understanding and skills of transit professionals and for training the next generation of transit professionals and practitioners. This project provides for program management, course development and course delivery services for the FTA Intelligent Transportation Systems (ITS) Professional Capacity Building Program (PCB) effort. Program management activity includes research and development of a transit PCB strategy, coordination of PCB program effort with FHWA and ITS Joint Program Office, as well as coordinating and overseeing delivery of both FTA and the Department's PCB programs. Course development and course delivery activities will be coordinated with other agencies in the Department of Transportation. The 1998 PCB effort focused on development of introductory material for local transportation decision makers and for training the agency's regional staff on the National ITS Architecture. This project is funded by the DOT/ITS Joint Program Office.

**Project WA-26-7005.00: Transit Signal Priority Workshop**

**Funding:** \$25,000

**Duration:** September 1998 - February 1999

**Performer:** King County Department of Transportation  
Exchange Building, 821 Second Avenue  
Mail Stop 182, Seattle, Washington 98104-1598

**Principal Investigator:** Ellen Bevington

**Phone:** 206.689.7387 **Fax:** 206.689.7386

**FTA Project Monitor:** Brian Cronin, TRI

**Phone:** 202.366.8841 **Fax:** 202.366.3765

**Email:** [brian.cronin@fta.dot.gov]

**Description:** This research project is the first phase in developing a coordinated approach to transit signal priority between the transit industry and the traffic management industry. The transit industry participated in an Institute of Transportation Engineers (ITE) joint workshop with the National Transportation Communications for ITS Protocol (NTCIP) and Transit Communications Interface Profiles (TCIP) groups to identify various architectures, operational strategies, technologies, and standards that will enable transit agencies and state and local transportation agencies to develop devices, integration strategies, software and operational guidelines that meet the goals and obligations of individual organizations' missions. King County DOT and Palisades Consulting, Inc. facilitated the development of a Scope of Work for Transit Signal Priority within the context of the NTCIP's roadway signal priority effort. This project is funded by the DOT/ITS Joint Program Office.

## *Specialized Customer Services*

### *Specialized Customer Services*

The goal of Specialized Customer Services is to ensure a transportation system that is accessible, integrated and efficient, offering flexibility of choices to riders, and enhancing community living. Activities are designed to improve services tailored for low-income, elderly and other transit-dependent travelers including persons with disabilities. Better services improve access to jobs, educational opportunities, health care and other essential activities for those most in need of transit.

Increased emphasis is also being placed on service innovations for residents of rural and suburban areas, and citizens impacted by welfare reform. Several programs already in place include: Rural Transportation Services, Older American Accessibility Program, Job Access and Reverse Commute Grant Program, Human Service Coordination, and Project ACTION for implementation of the Americans with Disabilities Act.

***Project DC-26-7083.00: Accessible Community Transportation - Project ACTION***

***Funding:*** \$3,000,000

***Duration:*** March 1998 - December 1999

***Performer:*** Easter Seals, Project ACTION

700 13<sup>th</sup> Street, NW, Suite 200, Washington, DC 20005

***Principal Investigator:*** Nancy Smith

***Phone:*** 202.347.3066 ***Fax:*** 202.347.4157

***FTA Project Monitor:*** Elizabeth Solomon, TRI

***Phone:*** 202.366.0242 ***Fax:*** 202.366.3765

***Email:*** [[elizabeth.solomon@fta.dot.gov](mailto:elizabeth.solomon@fta.dot.gov)]

***Internet URL:*** [<http://www.projectaction.org>]

***Description:*** Project ACTION – Accessible Community Transportation in Our Nation is a national program of assistance designed to ensure that Americans with disabilities have access to transit services and facilities to meet basic mobility needs. This project provides Project ACTION with the resources necessary to continue executing projects and programs designed to facilitate cooperation between the transit industry and the disability community in ensuring accessible public transportation systems and compliance with the provisions of the Americans with Disabilities Act (ADA). Project activities include developing and disseminating training material to improve transit service for the disability community, and conducting transit demonstration and outreach programs addressing accessibility issues to improve transit service. Over the past ten years, Project ACTION has funded more than 80 local demonstration projects and 21 technical assistance development grants. The transportation accessibility topic areas addressed include--Consumer Education and Travel Training, Needs Assessments, Transit Personnel Training, Outreach and Marketing, Coordination, Technology, Paratransit Eligibility, and Universal Accessibility. For additional information, visit the Project ACTION website at [<http://www.projectaction.org>].

## *Specialized Customer Services*

**Project MN-26-7002.02: Community Works Program at Hennepin County, Minnesota**

**Funding:** \$1,000,000

**Duration:** April 1998 – April 2001

**Performer:** Hennepin County Training & Employment Assistance

300 South Sixth Street, Minneapolis, Minnesota 55487-0012

**Principal Investigator:** Larry Blackstad

**Phone:** 612.348.5859 **Fax:** 612.348.3932

**FTA Project Monitor:** Stewart McKeown, TRI **Phone:** 202.366.0244 **Fax:** 202.366.3765

**Email:** [stewart mckeown@fta.dot.gov]

**Description:** The Hennepin Community Works Program (HCWP) is an ongoing intergovernmental planning group, designed to pool resources and projects of member agencies to reverse economic deterioration in urban and suburban areas. The program is 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 focus of this project is to assist Hennepin County and the Humphrey Institute of Public Affairs at the University of Minnesota to evaluate the planning, design, and implementation of specific transit-related infrastructure investments. This information, combined with other research relating to community development issues in other areas, will be the basis for developing a national model for cities interested in infrastructure-led community revitalization. The multi-jurisdictional Hennepin Community Planning Committee has completed a number of research and planning studies related to transit infrastructure projects, that are designed to stimulate development of long-term private sector employment opportunities for the economically disadvantaged, stabilize and enhance the property tax base, and connect neighborhoods and communities to each other.

**Project DC-26-7001.00: DOT/DHHS Joint Coordinating Council – Technical Support**

**Funding:** \$100,000

**Duration:** July 1998 – July 1999

**Performer:** American Public Works Association

1301 Pennsylvania Avenue, NW, Suite 501, Washington, DC 20004

**Principal Investigator:** Beth Denniston

**Phone:** 202.393.2791 **Fax:** 202.737.9153

**FTA Project Monitor:** Douglas Birnie, TRI

**Phone:** 202.366.1666 **Fax:** 202.366.3765

**Email:** [douglas.dirnie@fta.dot.gov]

**Description:** The Departments of Transportation (DOT) and Health and Human Services (DHHS) have been working through the Joint Coordinating Council on Human Services Transportation to bring more efficient and effective delivery of transportation services sponsored by both departments, namely--promoting coordination of specialized and human services and development of coordinated health care transportation services. This project provides technical support to the Congressionally mandated DOT/DHHS task force on joint planning guidance. It will assist the American Public Works Association (APWA) and the DOT/DHHS Joint Coordinating Council on Human Services Transportation to continue promoting coordination of transportation services at state and local levels of government. Coordination issues include welfare to work transportation, Medicaid and health care services, elderly and disabled transportation, rural services and other forms of specialized transportation service. APWA will conduct research and other needed support activities including short term research projects, preparation of background issue papers, outreach materials, and other coordination activities.

## *Specialized Customer Services*

**Project DC-26-7068.00: National Joblinks Employment Transportation Initiative**

**Funding:** \$1,000,000

**Duration:** June 1998 - June 2000

**Performer:** Community Transportation Association of America

1341 G Street, NW, Suite 600, Washington, DC 20005

**CTAA Hotline:** 800.527.8279 **Fax:** 202.737.9197 **Email:** [resources@ctaa.org]

**FTA Project Monitor:** Douglas Birnie, TRI **Phone:** 202.366.1666 **Fax:** 202.366.3765

**Email:** [douglas.birnie@fta.dot.gov]

**Internet URL:** [http://www.ctaa.org]

**Description:** This project provides ongoing support to the FTA-sponsored National Joblinks program--a demonstration program designed to test innovative ways of connecting welfare recipients and other unemployed or underemployed low-income persons to jobs and job support services. CTAA administers the Joblinks program and funds projects demonstrating innovative employment transportation solutions. Fiscal Year 1998 provided support for the third round of Congressionally directed Joblinks activities. Types of projects administered through Joblinks III included: 1) Northern Tier Transit Coalition in Western Massachusetts—demonstration project for regional transportation service in rural and economically disadvantaged areas; 2) technical assistance projects to areas seeking to develop job access transportation services; and 3) *Employer Challenge 2000*--a flexible technical assistance and project development initiative which awards competitive grants to support development of exemplary employer-based strategies in connecting welfare recipient to employment sites.

**Project MO-26-5001.00: National Rural Transit Assistance Program**

**Funding:** \$685,000

**Duration:** April 1998 – July 1999

**Performer:** American Public Works Association

106 W. 11<sup>th</sup> Street, Suite 800, Kansas City, Missouri 64105.1806

**Principal Investigator:** Beth Denniston

**Phone:** 202.393.0137 **Fax:** 202.737.9153

**FTA Project Monitor:** Mary M. Churchman, TPM **Phone:** 202.366.6693 **Fax:** 202.366.7951

**Email:** [mary.martha.churchman@fta.dot.gov]

**Description:** The American Public Works Association (APWA) will continue to provide technical support to the FTA National Rural Transit Assistance Program. RTAP is a national program providing training and technical assistance for rural public transit operators, improving safety of rural public transit service, and supporting coordination with human services transportation. Most RTAP funds are apportioned to states on the same basis as formula funds for other than non-urbanized areas. RTAP project activities are guided by a review board consisting of eleven rural operators and state RTAP managers. Major products of the national RTAP program include production of training modules tailored to the needs of rural and specialized transit providers, train the trainer workshops, information bulletins, and a national resource center operated by the Community Transportation Association of America [http://www.ctaa.org/ntrc]. Training and technical assistance for rural and specialized providers helps ensure mobility to rural Americans and efficient use of federal, state, and local resources for rural transit.

## *Specialized Customer Services*

### ***Project MD-26-5001.00: National Rural Transit Database Update***

***Funding:*** \$65,000

***Duration:*** October 1998 - December 1999

***Performer:*** Institute for Economic & Social Measurement, Inc.  
4715 Cordell Avenue, Bethesda, Maryland 20814

***Principal Investigator:*** Jon E. Burkhardt ***Phone:*** 301.652.6693 ***Fax:*** 301.907.8952

***FTA Project Monitor:*** Mary M. Churchman, TPM ***Phone:*** 202.366.6693 ***Fax:*** 202.366.7951

***Email:*** [mary.martha.churchman@fta.dot.gov]

***Description:*** The National RTAP project has been successful in creating and disseminating useful and needed training and technical assistance information and materials for rural and specialized transit operators. This project provides for a major update of the rural transit database, ensuring timely completion of the database and analysis of the findings. The project will provide current information about the characteristics of rural and specialized transit providers assisted by FTA programs. The database is the only source of ridership statistics and operational characteristics of rural and specialized transit systems. It provides information for development of the *Rural and Specialized Transit Directory*. Previous directories have been a valuable resource for providers of rural public and human services transportation. The 1998 directory will be published and available in the latter part of 1999. Knowledge about these information systems is useful to federal, state, and local decision makers and planners in helping to ensure mobility for all Americans.

### ***Project VA-26-7013.00: Welfare-to-Work Outreach Activities***

***Funding:*** \$50,000

***Duration:*** July 1998 – September 1999

***Performer:*** Center for Transportation Training, Education & Research, Inc.  
PO Box 31, Springfield, Virginia 22150

***Principal Investigator:*** Stephen Blake ***Phone:*** 703.860.5575

***FTA Project Monitor:*** Pauline D'Antignac, TRI ***Phone:*** 202.366.0816 ***Fax:*** 202.366.3475

***Email:*** [pauline.dantignac@fta.dot.gov]

***Description:*** The Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) authorized the establishment of the Job Access and Reverse Commute Grant Program. The goals of this new grant program are to 1) provide transportation services in urban, suburban, and rural areas to assist welfare recipients and low income individuals in gaining access to employment opportunities, and 2) increase collaboration among transportation providers, human service agencies, employers, metropolitan planning organizations, states and affected communities and individuals. The program embodies a regional approach to job access challenges through the establishment of a Regional Job Access and Reverse Commute Transportation Plan. All projects funded under the Job Access and Reverse Commute grant program are derived from this area-wide plan. This research project supports establishing a working relationship with DOT University Transportation Centers to support job access activities. Activities include promoting and coordinating research, training, and educational welfare-to-work transportation activities; providing federal assistance to job access applicants in formulating and implementing local programs; monitoring welfare-to-work transportation developments around the nation; as well as assessing the status of state and local welfare-to-work transportation plans. This program helps to ensure that all Americans have access to transit to meet their basic mobility needs.

## *Policy & Planning*

### *Policy & Planning*

The goal of research in support of transportation policy and planning is to improve the quality and scope of the information available to decision makers on the various transportation options available and the impacts of those options. Sound investment decisions by state and local government officials and policy makers require knowledge of the social, economic, and environmental costs, and the mobility and accessibility benefits of alternative courses of action. This transportation policy and planning research will improve the acceptability of alternative institutional arrangements for providing mobility, develop better approaches to multimodal system evaluation, explore the transportation implications of sustainable development issues, as well as seek ways to ensure intermodal connectivity, and exploit the latest advancements in planning technologies to provide the information that policy setters and decision makers need.

FTA policy research support of improved system evaluation and sustainable development will include a continuing program of assessing effects of the FTA program and the benefits of transit. This research area is the source of current information on transit assets, performance, conditions, finance, innovative finance techniques, and investment needs. It includes the analysis and promulgation of available data on transit performance, conditions, and needs, as well as development of new data sources needed to provide information to national decision makers. A Transit Performance Monitoring System analyzes transit industry trends and needs in greater detail. A new financial model for assessing transit investment requirements nationwide is also under development. These tools will improve the understanding of the role of transit in providing mobility and accessibility.

### **Metropolitan Policy Development**

***Project DC-26-6035.00: Commercial Benefits of Transit Services in the United States***

***Funding:*** \$100,000

***Duration:*** August 1998 - December 1999

***Performer:*** KPMG Peat Marwick, LLP

8200 Greensboro Drive, Suite 400, McLean, Virginia 22102-3802

***Principal Investigator:*** David Lewis

***Phone:*** 301.565.0391 ***Fax:*** 301.565.0394

***FTA Project Monitor:*** Fred Williams, TBP

***Phone:*** 202.366.1696 ***Fax:*** 202.366.7116

***Email:*** [fred.williams@fta.dot.gov]

***Description:*** This purpose of this research is to analyze the commercial benefits of transit services in the United States and determine the economic benefits of transportation alternatives. The research will develop and implement a design to determine the national aggregate of commercial property impacts of proximity to high quality transit facilities. In addition, the research will procure and implement an input-output model for one or more urbanized areas that will permit measurement of the effects of transit on regional economic growth.

## ***Policy & Planning***

### ***Project DC-26-6034.00: Congestion Management Benefits of Rapid Transit***

***Funding:*** \$200,000

***Duration:*** June 1998 – December 1999

***Performer:*** Science Applications International Corporation

7927 Jones Branch Drive, Suite 200, McLean, Virginia 22102

***Principal Investigator:*** David Lewis

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***FTA Project Monitor:*** Fred Williams, TBP

***Phone:*** 202.366.1696 ***Fax:*** 202.366.7116

***Email:*** [fred.williams@fta.dot.gov]

***Description:*** This research project will develop and apply a streamlined method for multiple mode travel time studies in selected transit corridors. The research studies will report on travel time savings that a transit-highway travel time equilibrium provides for transit patrons, motorists in the corridor, and other network effects, as well as determine the monetary value of these congestion reducing benefits for each corridor. A final project report will be published and made available to the public. It will include discussion of the research methodology and research results.

### ***Project VA-26-6003.07: Conditions, Performance & Needs Data***

***Funding:*** \$300,000

***Duration:*** September 1998 - September 1999

***Performer:*** Booz Allen & Hamilton

8238 Greensboro Drive, McLean, Virginia 22102

***Principal Investigator:*** Donald Schneck

***Phone:*** 215.496.8403 ***Fax:*** 215.496.6801

***FTA Project Monitor:*** Matthew Welbes, TBP

***Phone:*** 202.366.1668 ***Fax:*** 202.366.7116

***Email:*** [matthew.we.bes@fta.dot.gov]

***Description:*** This research project assists the FTA Policy Development Office in developing the *Conditions and Performance Report to the United States Congress*. The report to Congress, required every two years and produced jointly with FHWA, focuses on assessment of highway and transit current conditions and performance, and future investment requirements. It is also used to highlight the results of policy research. Research includes new data collection efforts and further development and maintenance of the Transit Economic Requirements Model (TERM). This will improve the accuracy and reliability of collected data to help measure progress toward outcome goals. This project provides for transit and highway conditions, performance, and needs to be estimated on a similar basis.

### ***Project DC-26-6022.00: Transit Performance Monitoring System***

***Funding:*** \$200,000

***Duration:*** September 1998 - November 2000

***Performer:*** American Public Transit Association

1201 New York Avenue, NW, Washington, DC 20005

***Principal Investigator:*** Richard Weaver

***Phone:*** 202.898.4109 ***Fax:*** 202.898.4049

***FTA Project Monitor:*** Matthew Welbes, TBP

***Phone:*** 202.366.1668 ***Fax:*** 202.366.7116

***Email:*** [matthew.welbes@fta.dot.gov]

***Description:*** This research project is developing and testing the Transit Performance Monitoring System (TPMS), a method for measuring how well transit is performing three principal public policy roles: supporting basic mobility, transit oriented development/livable communities, and traffic congestion management. To create the TPMS measures, information about passenger travel patterns, transit service quality, and transit costs and benefits are obtained

## *Policy & Planning*

from a variety of sources—on-board passenger surveys, telephone surveys, literature reviews, route level collection of economic data, and other sources. When fully developed, the TPMS will be integrated into the FTA National Transit Database. The goal is to provide information annually on transit user travel and transit service quality from the customers' perspectives. These resources will help assess transit conditions, connections, and transit coverage at the local level as well as the national level.



## ***Policy & Planning***

### **Planning**

***Project CO-26-0005.00: Colorado Metropolitan Planning Organization Study***

***Funding:*** \$600,000

***Duration:*** June 1998 – June 1999

***Performer:*** Colorado Department of Transportation  
4201 East Arkansas Avenue, Denver, Colorado 80222

***Principal Investigator:*** Andrew Goetz ***Phone:*** 303.871.4217 ***Fax:*** 303.871.4217

***FTA Project Monitor:*** David Beckhouse, TRO-8 ***Phone:*** 303.844.3242 ***Fax:*** 303.844.4217

***Email:*** [david.beckhouse@fta.dot.gov]

***Description:*** The purpose of this project is to conduct a study of the metropolitan planning process and organization in the Denver metropolitan area. The Congressionally mandated study will be based on a scope of work agreed to by Douglas County, the Denver Regional Council of Governments, and the Colorado Department of Transportation. Research findings and recommendations will be included in a final project report and made available to the Congressional Committees on Appropriations.

***Project DC-26-8014.00: Conference on Transportation Issues in Large U.S. Cities***

***Funding:*** \$30,000

***Duration:*** February 1998 - June 1998

***Performer:*** Federal Highway Administration  
U.S. Department of Transportation, Washington, DC 20590

***FTA Project Monitor:*** Charles Goodman, TPL ***Phone:*** 202.366.1944 ***Fax:*** 202.493.2478

***Email:*** [charles.goodman@fta.dot.gov]

***Description:*** In FY 1998, this project support brought together transportation officials from the 12 largest cities in the United States and other stakeholders in a national conference to discuss common transportation issues, emerging opportunities, and strategies for responding to the unique needs of America's central cities. This national conference--Conference on Transportation Issues in Large U.S. Cities--was the first time the federal government brought together key institutional stakeholders to identify and discuss critical transportation issues facing America's largest central cities, as well as to make long overdue progress in improving mobility in large urban centers. Conference proceeding have been published in the report--*Transportation Issues in Large U.S. Cities, Conference Proceedings 18*. It is available from Transportation Research Board Business Office, 2101 Constitution Avenue, NW, Washington, DC 20418; Phone 202.334.3214, Fax 202.334.2519, Email [TRBsales@nas.edu].

***Project DC-26-7043.02: Livable Communities Initiative Consortium Support***

***Funding:*** \$70,000

***Duration:*** September 1998 - December 1999

***Performer:*** American Institute of Architects  
1735 New York Avenue, NW, Washington, DC 20006

***Principal Investigator:*** Stephanie Urban Vierra ***Phone:*** 202.626.7446 ***Fax:*** 202.626.7425

***FTA Project Monitor:*** Effie Stallsmith, TPL ***Phone:*** 202.366.5653 ***Fax:*** 202.493.2478

***Email:*** [effie.stallsmith@fta.dot.gov]

***Description:*** This project provides ongoing support to the Livable Communities Initiative Consortium--the American Institute of Architects, American Planning Association, Institute of

## *Policy & Planning*

Transportation Engineers, Urban Land Institute, and the Surface Transportation Policy Project. This group of professional organizations will undertake a new design review and outreach program focused on transit-related development and livable communities. The goal of this new program is to develop a review program which showcases state-of-the-art in transit-oriented design and development of community-oriented transportation. The Livable Communities Initiative, through the Consortium, supports 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.

## ***Professional Capacity Building***

### ***Professional Capacity Building***

FTA's program initiatives to build professional capacity in the transit industry are directly linked to the DOT Strategic Plan and the transit industry strategic planning recommendations -- to attract and maintain an educated workforce to assure economic prosperity in the 21st century. Professional Capacity Building activities focus on upgrading existing skills, strengthening organizational relationships, and exploring short-term solutions and innovative human resources practices to meet performance and productivity demands. Long-term emphasis focuses on attracting new and diverse professionals to the industry. Special emphasis is placed on improving day-to-day transit management and operations while linking the introduction of new technology with the knowledge and skills required to provide service effectively.

FTA plans to use the resources and tools of advanced simulation systems to enhance the quality of the workforce by making realistic training possible without risking real-life incidents. Training courses will be offered in the use of advanced simulation models to assist the transit industry in the design and construction of state-of-the-art transit systems and components.

FTA programs currently in place to assist the industry in meeting its human resources development needs are the University Transportation Centers Program, the Garrett A. Morgan Technology and Transportation Futures Program, the Transit Cooperative Research Program, and the National Transit Institute.

#### ***Project NJ-26-2901.07: National Transit Institute***

***Funding:*** \$3,000,000

***Duration:*** March 1998 - March 1999

***Performer:*** National Transit Institute, Rutgers, The State University of New Jersey  
120 Albany Street, Suite 705, New Brunswick, New Jersey 08901

***Principal Investigator:*** Stephen Parker

***Phone:*** 908.932.1700 ***Fax:*** 908.932.1700

***FTA Project Monitor:*** Charles Morison, TRI

***Phone:*** 202.366.0245 ***Fax:*** 202.366.3765

***Email:*** [charles.morison@fta.dot.gov] ]

***Description:*** This project provides ongoing federal support to the National Transit Institute—the transit training center. NTI was established in 1992 at Rutgers, The State University of New Jersey, 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. The Institute serves the training and development needs of the transit industry, and plays a significant role in support of FTA's Professional Capacity Building Program--emphasis on training and retaining a quality workforce in the transit industry. NTI develops and conducts training for federal, state and local transit employees on a variety of industry-defined courses in management and supervision, as well as innovative methods and techniques for improving transit workforce performance. Courses are conducted at sites nationwide on a broad range of subjects, including workplace safety and innovative financing.

## ***Professional Capacity Building***

This seventh year effort continues activities in a number of areas of service, including federal program and industry-defined training, along with workshops and seminars. The project also provides support for 1) the NTI annual *Transit Trainers Workshop*-- brings together trainers and human resources specialists from the industry to learn the latest training techniques and share training experiences on the job; 2) *NTI Transit Academy*--provides new transit professionals with a first hand look at all elements of transit service from the provider's perspective; 3) *NTI Transit Fellows Program*--a competitive program that identifies technical industry experts and supports presentation of their expertise at conferences, seminars, and workshops; and 4) *NTI Clearinghouse*. Future efforts will continue to focus on identifying new training opportunities and supporting needed managerial, technical, and professional development in the transit industry. Visit the NTI website at [<http://www.policy.rutgers.edu/nti>].  
*NTI Contact:* Stephen Parker, *Email:* [[stparker@rci.rutgers.edu](mailto:stparker@rci.rutgers.edu)].

### ***Project DC-26-7066.00: Transit Cooperative Research Program***

***Funding:*** \$4,000,000

***Duration:*** March 1998 - March 1999

***Performer:*** 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 Monitor:*** Lisa Colbert, TRI

***Phone:*** 202.366.9261 ***Fax:*** 202.366.3765

***Email:*** [[lisa.colbert@fta.dot.gov](mailto:lisa.colbert@fta.dot.gov)]

***Description:*** This project provides ongoing support to the Transit Cooperative Research Program—a transit industry-directed research program focused on providing the transit industry with resources for development of innovative near-term solutions to meet transit needs. TCRP is the only national program in which the transit industry has direct responsibility for setting the research agenda. The program promotes transit operating effectiveness and efficiency by assisting the industry in developing and applying the latest technology and operating techniques to improve mobility and accessibility. The program is guided by the TCRP Oversight and Project Selection (TOPS) Committee, representing all aspects of the transit industry. A major focus area of the program is professional capacity building--providing materials for use by transit professionals and for educating the next generation of transit professionals and practitioners.

TCRP is building an electronic body of transit knowledge with educational and training value that will extend into the next millennium. It includes innovative research and technology products such as—new paradigms, new conceptions of public transit's role in the community, electronics, fuel choices and cost model software, and new planning and management tools. TCRP also conducts an *International Studies Program* designed to assist in the professional development of transit managers, public officials, planners, and others charged with public transportation responsibilities in the United States. TCRP products are heavily used by the transit industry, universities, and transit and technical institutes for educating and training the current workforce, and for training the next generation of transit professionals.

*TCRP research problem statements are solicited annually, but may be submitted to TRB by anyone at anytime.* Submission deadline is April 30 each year. For additional information, visit TRB Website at [<http://www2.nas.edu/trbcrp>] or APTA Website at [<http://www.apta.com/tcrp>]. TCRP was authorized as part of ISTEA and established under FTA sponsorship in July 1992.  
*Contact:* Stephen J. Andrie, TCRP Manager ***Fax:*** 202.334.2006 ***Email:*** [[sandrie@nas.edu](mailto:sandrie@nas.edu)]

## ***Professional Capacity Building***

### ***Project DC-11-1108.00: University Transportation Centers***

***Funding:*** \$5,980,000

***Duration:*** March 1998 - March 1999

***Performer:*** Research and Special Programs Administration

U.S. Department of Transportation, Washington, DC 20590

***Principal Investigator:*** Elaine Joost, DRT-2

***Phone:*** 202.366.4993 ***Fax:*** 202.366.3272

***FTA Project Monitor:*** Charles Morison, TRI

***Phone:*** 202.366.0219 ***Fax:*** 202.366.3765

***Email:*** [charles.morison@fta.dot.gov]

***Description:*** This project provides continued support for innovative research, education, and technology transfer activities in the University Transportation Centers program--the only program in the United States that provides higher education for the next generation of transportation professionals and connects them to career opportunities in the industry. The University Transportation Centers Program's mission is to advance U.S. technology and expertise in the many disciplines comprising transportation through the mechanisms of education, research and technology transfer at university-based centers of excellence. University Centers conduct research aimed at addressing regional and national transportation problems. These centers of excellence address transportation management, research and development matters with special emphasis on increasing the number of highly skilled individuals entering the field of transportation.

Under TEA-21, the UTC program expanded in 1) the number of universities participating to 33 members, 2) the increased level of funding, and 3) the addition of education and technology transfer as primary program elements. All schools involved in the program provide a 50 percent match regardless of their level of funding. The US DOT provides up to \$33.25 million each year, of that amount, \$6 million comes from transit funding. Transit funds are used to support centers at the University of Minnesota, Northwestern University, Morgan State University, and North Carolina State University.

The Research and Special Programs Administration continues to manage this program on behalf of US DOT. Direct input is provided by the participating modal administrations relative to their research and educational interests at the participating schools. Visit the University Transportation Centers Internet website at [<http://www.utc.dot.gov>].

***Contact:*** Office of University Programs, Research and Special Programs Administration, U.S. Department of Transportation, 400 7<sup>th</sup> Street, SW, Room 8417, Washington, DC 20590.

***Phone*** 202.366.5442 ***Fax*** 202.366.3671 ***Email:*** [utc@rspa.dot.gov]

## *Professional Capacity Building*

**Project MA-26-7042.00: Small Business Innovation Research Program**

**Funding:** \$383,000

**Duration:** April 1998 - April 1999

**Performer:** Volpe National Transportation Systems Center

Kendall Square, Cambridge, Massachusetts 92142

**Principal Investigator:** Joseph Henebury

**Phone:** 617.494.2051 **Fax:** 617.494.2370

**FTA Project Monitor:** Stewart McKeown, TRI

**Phone:** 202.366.0244 **Fax:** 202.366.3765

**Email:** [stewart.mckeown@fta.dot.gov]

**Description:** This project provides ongoing support to the US DOT Small Business Innovation Research Program (SBIR). The program supports research projects that enhance the innovative capacity of small businesses as well as meet FTA research needs. SBIR provides an opportunity for these small firms to commercialize innovations developed from federal R&D funds, and provides FTA with an effective resource for transit research. The SBIR 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. 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. 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.

The Department's SBIR Program is a competitive contract award process and coordinated by the Research and Special Programs Administration at the Volpe National Transportation Systems Center. Within the US DOT, eight modal administrations participate in the program including FTA. Recent SBIR research topics have included, Transit Fare Collection Decision Models for Fare Policy and Cost Analysis, and Safety Intrusion Detection Devices--Transit Applications. For more information, visit the Department's SBIR Program website at [<http://www.volpe.dot.gov>], or visit the Small Business Administration at [<http://www.sba.gov>].

## *Professional Capacity Building – Human Resources*

### **Human Resources**

#### ***Project DC-26-2009.04: Cardozo Senior High School TransTech Academy***

***Funding:*** \$75,000

***Duration:*** June 1998 – August 1999

***Performer:*** District of Columbia Public Schools,  
415 12<sup>th</sup> Street, Washington, DC 20044

***Principal Investigator:*** Shirley McCall

***Phone:*** 202.673.7753 ***Fax:*** 202.673. 7754

***FTA Project Monitor:*** Linda W. King, TCR

***Phone:*** 202.366.0816 ***Fax:*** 202.366.3475

***Email:*** [linda.king@fta.dot.gov]

***Description:*** This project provides ongoing support to the TransTech Academy at Cardozo Senior High School—the first transportation studies academy in the Washington, DC area. The academy is designed to provide high school students with a well-rounded academic and technological program that exposes them to future career opportunities in the field of transportation. Educational resources offered to students include internships, mentoring programs, summer work programs, field trips, and college visits. The TransTech Academy curriculum for the 1998-99 school term provides for student activities that include after-school work study internships at US DOT and the transportation industry, educational field trips, transit courses, counseling and information relevant to career and educational opportunities in transit. The project reaffirms 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). The 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 transportation studies academy--TransTech Academy.

#### ***Project DC-26-2013.01: DOT Summer Transportation Internship Program***

***Funding:*** \$25,000

***Duration:*** Summer 1999

***Performer:*** Federal Transit Administration, Office of Civil Rights  
400 7<sup>th</sup> Street, SW, Washington, DC 20590

***FTA Project Monitor:*** Linda W. King, TCR

***Phone:*** 202.366.0816 ***Fax:*** 202.366.3475

***Email:*** [linda.king@fta.dot.gov]

***Description:*** This project represents FTA's continuing interest in the Department's Summer Transportation Internship Program for Diverse Groups. The program is designed to introduce women, persons with disabilities, and persons representing diverse ethnic backgrounds to the transportation professions through education and employment opportunities in transportation. College students at the sophomore level and above are recruited. The program goals are to ensure equal opportunity in all US DOT-assisted programs and to promote diversity in the workforce, transportation industry, and related professions. This project will help draw a larger pool of trained personnel from diverse groups into the transit industry through a transportation agenda of research, work experience, and travel. It is a community-based training project under the Department of Transportation's Garrett A. Morgan Program, promoting a linkage between transit industry's need for trained professionals and minority community's need for training and employment of their young people.

## ***Professional Capacity Building – Human Resources***

### ***Project CA-26-2001.04: LACMTA Transportation Career Academies***

***Funding:*** \$100,000

***Duration:*** August 1998 - August 1999

***Performer:*** Los Angeles County Metropolitan Transit Authority  
818 West 7<sup>th</sup> Street, Suite 300, Los Angeles, California 90017

***Principal Investigator:*** Carolyn Drummond

***Phone:*** 213.922.2454 ***Fax:*** 213.922.1702

***FTA Project Monitor:*** Linda W. King, TCR

***Phone:*** 202.366.0816 ***Fax:*** 202.366.3475

***Email:*** [linda.king@fta.dot.gov]

***Description:*** This project provides ongoing support to the Transportation Careers Academy Program. The program will continue developing and implementing transportation-related education courses at three schools in the Los Angeles Unified School District. The community-based training program is a partnership between the Los Angeles Metropolitan Transit Authority and the Los Angeles Unified School Districts. The program offers a school-to-career experience, i.e., prepares approximately 500 students from three high schools in South Central Los Angeles for future careers in transportation. Academic and vocational education as well as work experiences are tailored to match existing and future employment needs. The program offers minorities and young women opportunities to learn basic concepts in design, architecture, and urban planning, as well as summer internships in the industry. This community-based training program is sponsored under the Department's Garrett A. Morgan Initiative—which seeks to build partnerships between and within the transportation and education communities, thus linking the transit industry's need for trained transit professionals with minority communities' need for education and employment of its residents.

### ***Project VA-90-8003.01: Performance of Civil Rights Related Compliance Reviews of DOT/FTA Grant Recipients***

***Funding:*** \$281,817

***Duration:*** August 1997-August 1999

***Performer:*** CompuCon, Inc.  
1800 Diagonal Road, Suite 600, Alexandria, Virginia 22314

***Principal Investigator:*** Sandra Davis

***Phone:*** 202.684.7619 ***Fax:*** 703.548.9446

***FTA Project Monitor:*** Beverly E. Sligh, TCR

***Phone:*** 202.366.0816 ***Fax:*** 202.366.3475

***Email:*** [beverly.sligh@fta.dot.gov]

***Description:*** The Office of Civil Rights is responsible for monitoring and enforcing the compliance requirements of civil rights-related laws and affirmative action initiatives subject to FTA financial assistance programs. Compliance reviews focus on civil rights-related activities, and performed to monitor and enforce grantee compliance with the laws and authorities which apply to the financial assistance provided by FTA programs. The objective of this project is to acquire ongoing assistance and advisory services in the performance of civil rights-related compliance reviews of FTA grant recipients. 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 oversight reviews identified in FTA Risk Assessment Program.



## ***Professional Capacity Building – Human Resources***

### ***Project IL-90-8000.02: Performance of Civil Rights Related Compliance Reviews of DOT/FTA Grant Recipients***

***Funding:*** \$434,000

***Duration:*** June 1998 – June 1999

***Performer:*** Ralph G. Moore & Associates

211 West Wacker Drive, Suite 900, Chicago, Illinois 60606

***Principal Investigator:*** Lancer Foster

***Phone:*** 312.419.1911 ***Fax:*** 312.419.1918

***FTA Project Monitor:*** Beverly E. Sligh, TCR

***Phone:*** 202.366.0816 ***Fax:*** 202.366.3475

***Email:*** [beverly.sligh@fta.dot.gov]

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

### ***Project MD-26-2002.02: United Cerebral Palsy High School/High Tech***

***Funding:*** \$25,000

***Duration:*** June 1998 - November 1999

***Performer:*** United Cerebral Palsy of Prince George's and Montgomery Counties

Wm. Irwin Buck Center

3901 Woodhaven Lane, Bowie, Maryland 20715-1299

***Principal Investigator:*** Dr. Charles McNelly

***Phone:*** 301.262.4993 ***Fax:*** 301.262.4982

***FTA Project Monitor:*** Linda W. King, TCR

***Phone:*** 202.366.0816 ***Fax:*** 202.366.3475

***Email:*** [linda.king@fta.dot.gov]

***Description:*** This project is a continuation of a program funded since 1994 to provide young adults with disabilities, attending high schools in Prince George's and Montgomery Counties, with exposure to careers in transportation and technology. The program is in its fourth year. It is designed to introduce students to the professions, disciplines, and summer employment opportunities in the transportation sector. Students have the opportunity to attend and participate in workshops at the Department and to test their interests and abilities in a real world, working environment. The young adults are provided with career counseling and information pertaining to the career and educational opportunities in the transportation sector. This program helps to ensure equal opportunity in DOT-assisted programs and to promote diversity in the workforce, the transportation industry, and supporting professions.

# *Professional Capacity Building – Information & Communications*

## **Information & Communication**

### **Project VA-26-6006.00: FTA Internet Website Support**

**Funding:** \$100,000

**Duration:** August 1998 - August 1999

**Performer:** Bureau of Transportation Statistics

U.S. Department of Transportation, Washington, DC 20590

**Principal Investigator:** Robert Owens, TBP

**Phone:** 202.366.1689 **Fax:** 202.366.7116

**FTA Project Monitor:** Raymond Keng, TRI

**Phone:** 202.366.6161 **Fax:** 202.366.3765

**Email:** [robert.owens@fta.dot.gov] [raymond.keng@fta.dot.gov]

**Description:** This project continues service, development, and evolution of the FTA site on the Internet World-Wide-Web (FTA Website). The Website provides extensive information about FTA and its programs to the public over the Internet. It provides access to FTA announcements, notices, periodic reports, circulars, and final project reports developed through FTA sponsored research. The FTA Website serves as the electronic gateway to transit information on the Internet, having links to numerous other Internet sites, including transit operators, research agencies and other that provide information relevant to transit and FTA programs and interests. Tasks performed under this project include maintaining the FTA Internet Server, assessing and incorporating new software and technologies, tailoring and organizing files and documents for optimal electronic presentation, responding to customer queries, and advising FTA staff in development and presentation of information on the Internet. Visit the FTA Website at [<http://www.fta.dot.gov>].

### **Project VA-26-5001.00: National Transit Database – Technical Support**

**Funding:** \$250,000

**Duration:** July 1998 - July 1999

**Performer:** Signal Corporation

3040 Williams Drive, Fairfax, Virginia 22031

**FTA Project Monitor:** Gary Delorme, TPM

**Phone:** 202.366.1652 **Fax:** 202.366.7951

**Email:** [gary.delorme@fta.dot.gov]

**Description:** This project provides for continuing technical and administrative support to the management and operation of the National Transit Database. Project support includes data collection and validation, maintenance, software development, and annual report production. The National Transit Database is a congressionally mandated program that provides for the establishment of a uniform system of transit accounts and records, plus a reporting system for the collection and dissemination of public transit financial and operating data by uniform categories. Approximately 600 transit agencies submit detailed summaries of their financial and operating data to the FTA National Transit Database reporting system (formerly the Section 15 Program). This statistical data is reviewed 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*. Statistical information from the National Transit Database is used for planning of public transportation services and making public sector investment decisions at all levels of government. This project also provides for preparing National Transit Database reports for dissemination on the FTA Internet Website [[http://www.fta.dot.gov/project management](http://www.fta.dot.gov/project%20management)].

## ***Professional Capacity Building – Information & Communications***

### ***Project MA-26-7037.01: Research and Technology Five-Year Plan Development***

***Funding:*** \$75,000

***Duration:*** January 1998 – July 1998

***Performer:*** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

***FTA Project Monitor:*** Tony Yen, TRI

***Phone:*** 202.366.4047 ***Fax:*** 202.366.3765

***Email:*** [tony.yen@fta.dot.gov]

***Description:*** This project provided technical support to the Volpe Center for professional services needed to develop and publish the *FTA Research & Technology Five-Year Plan*. FTA began working with the transit industry to develop a Research & Technology Five-Year Plan that identified research and technology priorities in advance. The consultation process included numerous dialogue sessions with the transportation community--generating information that played an important role in setting the direction for development of the plan. This project provided for the professional services necessary to organize, process and integrate this transit industry input with the strategic goals of both the US DOT and FTA. Final delivery and dissemination of the five-year plan is also supported under this project.

### ***Project DC-26-8014.00: TEA-21 National Outreach Conference***

***Funding:*** \$30,000

***Duration:*** September 1998 - December 1998

***Performer:*** Federal Highway Administration  
U.S. Department of Transportation, Washington, DC 20590

***Principal Investigator:*** Sheldon Edner

***Phone:*** 202.366.8520 ***Fax:*** 202.366.3713

***FTA Project Monitor:*** Harriett Dietz, TPL

***Phone:*** 202.366.1627 ***Fax:*** 202.493.2478

***Email:*** [harriett.dietz@fta.dot.gov]

***Description:*** This intra-agency agreement with FHWA supported the Transportation Research Board's effort to convene a national outreach conference on the new legislation, the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21). The *Planning for the 21<sup>st</sup> Century Conference* provided both FTA and FHWA the opportunity to reach out to their customers and stakeholders and effectively communicate key provisions of the new and reauthorized programs in TEA-21, as well as to obtain input from conference participants on the impact of TEA-21 programs on the future direction of metropolitan and statewide transportation planning processes. The conference, held February 6-10, 1999, was also designed to promote discussion, exchange ideas, and create a better understanding of new transportation issues, such as welfare-to-work and intelligent transportation systems—both key elements of the Department's strategic plan.

### ***Project DC-26-0011.00: Technology Sharing – Printing & Distribution of Research Products***

***Funding:*** \$50,000

***Duration:*** March 1998 - March 1999

***Performer:*** Research & Special Programs Administration,  
U.S. Department of Transportation, Washington, DC 20590

***FTA Project Monitor:*** Linda Wolfe, TRI

***Phone:*** 202.366.8511 ***Fax:*** 202.366.3765

***Email:*** [linda.wolfe@fta.dot.gov]

***Description:*** Unless documentation of new technologies and innovations is delivered to prospective users, the R&D process leads nowhere. This project provided for the preparation, printing, and distribution of technical reports and program guidance on innovative transit

## ***Professional Capacity Building – Information & Communications***

planning, technologies, services, methods, and management practices. The technical information reported on was developed through a variety of R& D projects. Basically, this project concerns the logistics of preparing and delivering the information to external and internal customers in the transit community, who can use the information in planning for or implementing innovations. It includes adapting technical documents for posting on the FTA Internet Website and an ongoing agreement with RSPA for printing, announcing and disseminating the FTA transit planning, research and technology products.

### ***Project MA-26-5006.00: Transit Construction Roundtable Contract Support***

***Funding:*** \$80,000

***Duration:*** March 1998 – December 1998

***Performer:*** Volpe National Transportation Systems Center  
Kendall Square, Cambridge, Massachusetts 02142

***Principal Investigator:*** Melissa Laube

***Phone:*** 617.494.3559 ***Fax:*** 617.494.3260

***FTA Project Monitor:*** Carol Kerr, TPM

***Phone:*** 202.366.0204 ***Fax:*** 202.366.7951

***Email:*** [carol.kerr@fta.dot.gov]

***Description:*** This project provided for development of a brochure describing the activities and accomplishments of the *Transit Construction Roundtable*—a successful partnership between the federal government and local public transportation agencies. The brochure summarizes the history and accomplishments of the Roundtable, covering its first ten semi-annual meetings, and serves as an information resource to transit agencies and other organizations concerned with development of transit infrastructure. The Transit Construction Roundtable brings together FTA and grantee staff involved in the construction of major capital transit projects. This interactive national forum of engineers and construction managers allows for the exchange of ideas, experiences, and best practices in the implementation of high dollar/complex construction projects. This dialogue helps to 1) improve the quality of major capital projects by sharing lessons learned among transit agencies, and 2) improve FTA service to customers by listening to their concerns and implementing program initiatives to facilitate project delivery. Transit agencies can now access the FTA website and benefit from a series of *lessons learned* in transit design and construction [<http://www.fta.dot.gov>].

### ***Project DC-26-7070.00: Transit Research Discussion & Dissemination Services***

***Funding:*** \$150,000

***Duration:*** March 1998 - March 1999

***Performer:*** National Academy of Sciences, Transportation Research Board  
2101 Constitution Avenue, NW, Washington, DC 20418

***FTA Project Monitor:*** Elizabeth Solomon, TRI

***Phone:*** 202.366.0219 ***Fax:*** 202.366.3765

***Email:*** [elizabeth.solomon@fta.dot.gov]

***Description:*** This project provides ongoing support to the Transportation Research Board (TRB)—a unique source of independent expertise that develops and disseminates innovative research information addressing transit issues. The project support enables TRB to maintain an extensive network of transit experts in research, operations, and academia to work cooperatively on commonly held critical transit needs, and to resolve them through transit research, discussion and dissemination. One of the national resources the TRB partnership has long provided FTA with, is the opportunity to reach out to the transportation research community through TRB annual meetings, professional committees, and working groups. Each year, thousand of transit professionals and practitioners around the world are able to come together and focus on the

## ***Professional Capacity Building – Information & Communications***

sharing of ideas and transfer of knowledge relevant to national, state, and local transportation issues. FTA continues to support TRB activities that make possible this diverse and multi-national forum for professional capacity building. This project also supports the evolution, maintenance, and improvement of the Transportation Research Information Services (TRIS). TRIS is the TRB bibliographic database designed to be the comprehensive source of surface transportation in the world. TRIS database contains *document abstracts* describing published literature of highway research, rural, urban, and intercity transit research, highway safety research, railroad research, maritime research, and air transport research. The online version also contains *unpublished research* in progress in transit, TCRP, and highway research. Overall, TRB technology sharing services not only build professional capacity of the transit workforce, but also create public awareness of the benefits of transit, and help generate a first-class transit R&D capability. Visit TRIS on the TRB Internet website at [<http://www.nas.edu/TRB>]

## ***Index by State & Project Number***

---

### ***California***

- CA-26-0021.09. CALSTART Consortium Electric Vehicle Program, 9
- CA-26-2001.04. LACMTA Transportation Career Academies, 38
- CA-26-7002.05. Advanced Technology Transit Bus, 8
- CA-90-5002.00. Transit Security Audits, 7

---

### ***Colorado***

- CO-26-0005.00. Colorado Metropolitan Planning Organization Study, 31

---

### ***District of Columbia***

- DC-26-0011.00. Technology Sharing – Printing & Distribution of Research Products, 41
- DC-26-1108.00. University Transportation Centers, 35
- DC-26-2009.04. Cardozo Senior High School TransTech Academy, 37
- DC-26-2013.01. DOT Summer Transportation Internship Program, 37
- DC-26-5003.00. Survey of Seat Belt Usage, 6
- DC-26-6022.00. Transit Performance Monitoring System, 29
- DC-26-6034.00. Congestion Management Benefits of Rapid Transit, 29
- DC-26-6035.00. Commercial Benefits of Transit Services in the United States, 28
- DC-26-7001.00. DOT/DHHS Joint Coordinating Council – Technical Support, 25
- DC-26-7002.07. Domestic Fuel Cell Transit Bus Development Program, 9

- DC-26-7017.03. Baseline Advanced Design Transit Coach Specifications Update, 11
- DC-26-7043.02. Livable Communities Initiative Consortium Support, 31
- DC-26-7066.00. Transit Cooperative Research Program, 34
- DC-26-7068.00. National Joblinks Employment Transportation Initiative, 26
- DC-26-7070.00. Transit Research Discussion & Dissemination Services, 42
- DC-26-7083.00. Accessible Community Transportation - Project ACTION, 24
- DC-26-8014.00. Conference on Transportation Issues in Large U.S. Cities, 31
- DC-26-8014.00. TEA-21 National Outreach Conference, 41

---

### ***Florida***

- FL-26-7009.00. Regional Application of Rural ITS in Florida's Coordinated Transportation System, 22

---

### ***Illinois***

- IL-90-8000.02. Performance of Civil Rights Related Compliance Reviews of DOT/FTA Grant Recipients, 39

---

### ***Massachusetts***

- MA-26-5001.00. Drug & Alcohol Testing Management Information System, 2
- MA-26-5002.00. Safety Management Information System (SAMIS), 4
- MA-26-5003.00. Transit Safety & Security Clearinghouse, 6
- MA-26-5004.00. Transit Safety & Security Bulletin Board & Internet Website, 7

## ***Index by State & Project Number***

---

### ***Massachusetts - continued***

- MA-26-5005.00. Fault Tree Analysis of Commuter Rail, 3  
MA-26-5006.00. Transit Construction Roundtable Contract Support, 42  
MA-26-5008.00. Children Riding Transit, 1  
MA-26-5008.00. Moving People Safely Conference, 3  
MA-26-7007.04. APTS Mobile Showcase Project, 18  
MA-26-7007.05. APTS Program Technical Support, 17  
MA-26-7007.05. Development of International Standards for Public Transit, 20  
MA-26-7007.05. Intelligent Vehicle Initiative – Transit IVI Needs Assessment, 20  
MA-26-7007.05. Multi-User Smart Card Guidelines & Specifications, 21  
MA-26-7007.05. Transit ITS Professional Capacity Building, 23  
MA-26-7037.01. Research & Technology Five-Year Plan Development, 41  
MA-26-7038.02. Bus Rapid Transit Initiative Technical Support, 19  
MA-26-7039.00. Safety & Health Aspects of Fuel Systems & Technologies, 3  
MA-26-7040.00. Turnkey Project Demonstration Program Support, 16  
MA-26-7041.00. Innovative Finance & Joint Development Project, 16  
MA-26-7042.00. Small Business Innovation Research Program, 36  
MA-26-7043.00. Turnkey Project Demonstration Program, 15  
MA-26-7053.00. Utilizing GIS Technology in TANF Programs, 21  
MA-90-5003.00. Drug & Alcohol Testing Compliance Audits, 2  
MA-90-5004.00. State Safety Oversight Compliance, 5  
MA-90-7018.01. Altoona Bus Testing Management Oversight, 11

---

### ***Maryland***

- MD-26-2002.02. United Cerebral Palsy High School/High Tech, 39  
MD-26-5001.00. National Rural Transit Database Update, 27

---

### ***Minnesota***

- MN-26-7002.02. Community Works Program at Hennepin County, Minnesota, 25

---

### ***Missouri***

- MO-26-5001.00. National Rural Transit Assistance Program, 26

---

### ***North Dakota***

- ND-26-7000.00. Assessing ITS Applications in Non-Urbanized Welfare Transit Systems, 18

---

### ***New Jersey***

- NJ-26-2901.07. National Transit Institute, 33

---

### ***New Mexico***

- NM-26-7000.03. DUETS Demonstration of Universal Electric Transportation Subsystems, 10

---

### ***Nevada***

- NV-26-7001.00. Zinc-Air Battery Bus Demonstration Project, 10

## ***Index by State & Project Number***

<b><i>Oklahoma</i></b> OK-26-5001.00. Safety & Security Training Program, 4	TX-26-7007-00. Rear Impact Collision Mitigation Transit IVI, 22
<b><i>Pennsylvania</i></b> PA-26-7003.00. Low-Speed Magnetic Levitation Technology Study, 14 PA-26-7006.00. Lane Change/Merge Collision Avoidance - Transit IVI, 20	<b><i>Virginia</i></b> VA-26-5001.00. National Transit Database – Technical Support, 40 VA-26-5002.00. Security Plan/Emergency Management Survey, 5 VA-26-6003.07. Conditions, Performance & Needs Data, 29 VA-26-6006.00. FTA Internet Website Support, 40 VA-26-7013.00. Welfare-to-Work Outreach Activities, 27 VA-90-8003.01. Performance of Civil Rights Related Compliance Reviews of DOT/FTA Grant Recipients, 38
<b><i>South Carolina</i></b> SC-03-7001.00. Charleston Monobeam Project, 13	
<b><i>Texas</i></b> TX-03-4504.00. Autonomous Dial-A-Ride Transit Planning Model. Phase 3, 19	<b><i>Washington</i></b> WA-26-7005.00. Transit Signal Priority Workshop, 23