Vehicle Assist and Automation: Evaluating new technologies in bus safety

Imagine this scenario: It’s a cold January day in Minneapolis and a Metro bus is heading north on I-35West into downtown during morning rush hour. Traffic starts to back up at the Crosstown Highway, and soon the bus comes a standstill. The driver is going to miss the next time point, and if the delay continues, the bus may be late arriving downtown. Passengers start to grumble and wonder aloud, “Why doesn’t he just use the shoulder?” since Metro buses are allowed to do so during traffic jams. But the bus driver is not willing to take the risk. With all the snow on the ground, he has no way to tell where the shoulder ends. The bus arrives 20 minutes late.

Now, imagine a different scenario: Heading north on the same corridor, traffic starts to back up, but this time the bus driver presses a button that activates the new Driver Assist System, which enables him to view the shoulder boundaries as they are digitally projected on a head-up display. He moves safely onto the shoulder and starts bypassing the congestion; when the bus starts to drift a little too far left, the digital boundary on the head-up display flashes red and the left side of the driver’s seat begins to vibrate as warnings to the driver. He makes a steering correction and keeps moving, arriving downtown on time.

Driver Assists System enable bus drivers to view digitally projected images on a head-up display

Welcome to the world of Vehicle Assist and Automation (VAA), guidance technologies that provide partial or full control of a vehicle’s movements. In the transit industry,
VAA can be used for guiding buses in narrow lanes or shoulders, precision docking at stations, and collision avoidance. Until recently, VAA has seen only limited use, primarily overseas. Transit buses in Rouen, France, are equipped with an optical guidance system that uses a camera mounted on the front of the bus that “reads” the road stripes and locks onto a specified trajectory. In Eindhoven, Netherlands, transit buses can detect magnetic markers embedded beneath the pavement to dock precisely two inches from the station platform. In Essen, Germany, Adelaide, Australia, and Leeds, England, transit buses ride along specially-designed tracks using mechanical guide wheels mounted to the front and rear axles. In Adelaide, buses are able to achieve speeds up to 60 mph while using these tracks and guide wheels.

Until recently, only two agencies in the U.S. have attempted to use VAA in bus revenue service. One was the MAX bus rapid transit in Las Vegas, which included an optical guidance system (OGS). Due to the high maintenance costs of cleaning the pavement markers, it was discontinued. The other example of VAA in the U.S., which has been more successful, is the HealthLine BRT in Cleveland. HealthLine vehicles are equipped with mechanical guide wheels similar to the ones used in Essen, Adelaide, and Leeds and are used for precision docking at the stations.

Several transit agencies in the U.S. have launched demonstration projects of VAA and are experimenting with a variety of technologies. The Federal Transit Administration has asked CUTR’s National Bus Rapid Transit Institute (NBRTI) to evaluate these demonstration projects. NBRTI will review VAA’s impacts in several core areas, including customer and bus operator satisfaction, efficiency and productivity, maintenance, safety, and technology performance.

The Minnesota Valley Transit Authority (MTVA) in Minneapolis in November began using a Driver Assist System (DAS) much like the one previously described. The DAS was developed by the ITS Institute at the University of Minnesota to help make driving on highway shoulders easier for bus drivers. In Minneapolis, bus drivers are allowed to use the shoulders when speeds in the general purpose lanes drop below 35 mph. However, the shoulders are quite narrow (about 10 ft on average), which can make for a stressful ride, especially when the shoulder stripes are obscured by snow. MTVA’s hope is that the DAS will encourage bus drivers to use shoulders more frequently, especially during periods of inclement weather.

In California and Oregon, Caltrans, AC Transit, Lane Transit District, and California PATH at UC Berkeley have partnered to develop a magnetic-based guidance system similar to the one used in the Netherlands. AC Transit will use the technology on buses that cross the San Mateo
Bridge. The magnetic system will guide the buses in an HOV lane and through a narrow toll plaza. In Eugene, Oregon, Lane Transit District will use the technology on its Emerald Express (EmX) BRT primarily for precision docking at the stations. Because of the technology’s high degree of accuracy, the bus will be able to consistently get within two inches of the platform. That precision, combined with the near-level boarding already provided at the stations, should help make the experience of riding the EmX feel even more like rail. Both projects are scheduled to begin operations in March 2011.

The San Diego Association of Governments (SANDAG) and Metropolitan Transit System (MTS) are working with Swoop Technologies to create an optical- and radar-based guidance system for a new bus-on-shoulder service on I-805. As in Minnesota, bus drivers in San Diego will have the option of switching to the shoulders when speeds in the general purpose lanes drop below 35 mph. The bus driver will be in control of the vehicle at all times and use the VAA technology as an assist. In addition to lateral guidance and collision avoidance, which the Minnesota system has, San Diego’s guidance system will include adaptive cruise control; the VAA technology will reduce the speed of the bus should an object be detected to the front. This project is tentatively scheduled for Winter 2011.

NBRTI’s evaluation will look at the results with and without the technology in play to determine, for example, is there a difference in on-time performance with and without use of the VAA? Is there a difference in how well the bus stayed in the shoulder or how often the bus driver used the shoulder? Do bus drivers find the technology easy to use? Does it make their job less stressful? Do riders notice a difference in the smoothness of the ride? Results will be reported in a future issue.

For more information on the evaluation of these VAA demonstration projects, contact CUTR Senior Research Associate Brian Pessaro at pessaro@cutr.usf.edu, (813) 974-5113, or Transit Management Program Director Rob Gregg at gregg@cutr.usf.edu, (813) 974-8383.

**Federspiel retires from CUTR, USF**

After 33 years of service to USF, CUTR Human Resources Administrator Lynn Federspiel retired in December. She joined the USF Electrical Engineering Department in 1977 and subsequently served in the Department of Computer Services and the Math Department. In 1986, she was appointed Administrative Assistant to the Dean of the College of Engineering, working with several deans before joining CUTR in 2008. She and her husband Ron are avid supporters of USF, and her service to CUTR and the USF community will be missed!

**Gonzalez named NCTR 2010 Student of the Year**

Enrique Gonzalez-Velez has been named the 2010 Student of the Year for CUTR’s National Center for Transit Research (NCTR). He is a Ph.D. candidate in the USF Civil & Environmental Engineering Department and has worked as a Graduate Research Assistant at CUTR since 2006, assisting on projects related to transit safety. Enrique served as President of the USF Student Chapter of the Institute of Transportation Engineers (ITE), is a member of the TRB Committee on Visibility and the ITE Transportation Safety Council, and has presented his research results at TRB and Florida ITE meetings. Recognition of his award was made at the annual meeting of the Council of University Transportation Centers during the 2010 TRB meeting.
CUTR’s 2010 Transportation Achievement Award recipient Ben G. Watts was honored at a dinner in October that was attended by numerous transportation professionals and agency representatives. Mr. Watts, former Secretary of the Florida Department of Transportation, is a graduate of the U.S. Military Academy at West Point and joined FDOT in 1974, where he held increasingly responsible positions in maintenance, design, and production management. In 1987 he was appointed District Five Secretary and in 1989 was named FDOT Secretary by Governor Bob Martinez. He was retained as Secretary in 1991 by Governor Lawton Chiles and served until 1997. Thereafter, he joined Carter & Burgess, Inc., and was named president and CEO of the firm in 2003, retiring in 2008.

FDOT Secretary Stephanie Kopelousos gave the keynote address at the Award Dinner and Floridians for Better Transportation President Doug Callaway introduced Mr. Watts.

Also recognized at the dinner was Hongyun Chen, the 2010 recipient of the Georgia Brosch Memorial Transportation Scholarship. She received her Ph.D. in civil engineering from USF in December and worked at CUTR as a Graduate Research Assistant.

CUTR extends special thanks to this year’s Award Dinner sponsors:

**Platinum Sponsors**—AAA Auto Club South

**Gold Sponsors**—Florida Transportation Builders’ Association, Inc.; Parsons Brinckerhoff; PCL Civil Constructors, Inc.; Raymond James & Associates, Inc.; TransCore; Vecellio Group, Inc.


**TOP:** FDOT Secretary Stephanie Kopelousos, Florida Representative Rich Glorioso, CUTR Advisory Board Chair Kimberlee DeBasier, Awardee Ben G. Watts, CUTR Director Ed Mierzejewski  **BOTTOM:** CUTR Director Ed Mierzejewski, scholarship recipient Hongyun Chen, former CUTR director Gary Brosch and wife Barbara.
Message from the NCTR Director—Research that Makes a Difference

The National Center for Transit Research at USF is privileged to contribute to the improvement of our state’s and nation’s transportation system by conducting research that enhances the performance of public transportation and alternative forms of transportation. We aggressively share the results of that research and prepare the next generation of transportation professionals through classes, mentoring, and opportunities to participate as research assistants.

Our primary emphasis is on developing solutions to current challenges faced by operating transportation agencies. Many of our recent research products have been adopted by local, state, and federal agencies, and our research is enhancing safety and productivity, saving money, and improving the quality of performance at transit agencies and DOTs across the U.S. Our Bus Incident Reporting, Tracking, and Analysis System is helping agencies understand the circumstances under which accidents and incidents occur, which, in turn, enables them to modify their training and reduce accidents in the future. Our National Transit Database Sampling Package, adopted by the Federal Transit Administration, contains a guide and an Excel tool for NTD reporters that can decrease reporting burdens by taking advantage of modern sampling techniques and customizing the sample size to the individual conditions at each transit agency. FTA has asked that it be developed as a Web-based tool to further simplify efforts while actually improving the statistical validity of the reports. Our TRIMMS (Trip Reduction Impacts for Mobility Management Strategies) model enables agencies to calculate the impact of a broad range of TDM initiatives on factors such as congestion mitigation, emissions and air quality, accident reduction, and travel time savings. The model is now being used by EPA, FHWA, and a number of state and regional departments of transportation. These are only a few examples of the many products NCTR develops that are changing the way transportation agencies plan, analyze, and operate. The ultimate beneficiaries are all those who use our nation’s surface transportation system.

NCTR makes great efforts to distribute our research results through our Web site, presentations at conferences, publications, netcasts, and active participation on professional committees. Almost 5,000 professionals and students use our listservs. We also host a one-of-a-kind GIS in Transit conference every two years that specializes in new applications of geospatial analysis to benefit public transit agencies and their passengers.

Perhaps the most significant contribution made by NCTR and all University Transportation Centers is providing opportunities for students to discover the many professional opportunities in the field of transportation. Our former students now work at high levels of state Departments of Transportation, the Federal Transit Administration, the Research and Innovative Technology Administration, the National Center on Senior Transportation, regional transit agencies, and consulting firms. We look forward to introducing many more students to opportunities to serve our nation through their transportation expertise.

NCTR is proud to have successfully competed twice at the national level to attain and retain our Tier I UTC status. We are also ever grateful for the financial support provided by the Florida Department of Transportation for the matching funds they provide to our federal grant, as well as their role in helping develop and manage the research conducted.

Joel Volinski, NCTR Director
Program Overview

Funding
NCTR has now completed its 11th year, having been approved for funding in September 1999. The federal funding for this program helps to significantly expand the area of public transportation research already conducted by CUTR researchers over the last 21 years. Federal funds for the program are matched with a greater than 100 percent cash match from the Florida Department of Transportation (FDOT), creating more than a doubling of total program funding.

NCTR Advisory Committee
The NCTR Advisory Committee was created during the first six months of the program and consists of 14 experts in the public transportation community with knowledge in the areas of public transportation research, transit planning and operations, and alternative forms of transportation. The members and their affiliations are as follows:

- Joe Calabrese
  General Manager
  Greater Cleveland Regional Transit Authority
- Mike Baltes
  ITS Program Manager
  Federal Transit Administration
- Tim Garling
  Executive Director
  Pinellas Suncoast Transit Authority
- Ed Coven
  State Public Transit Office Manager
  Florida Department of Transportation
- Darryl Dockstader
  Director, Office of Research
  Florida Department of Transportation
- Dr. Minnie Fells-Johnson
  Public Transportation Consultant
- Dr. Wendell Joice
  Director, International Telework Assoc. & Council
- Perry Maull
  Operations Manager
  Indiana University Campus Bus Service
- Bill McCloud
  Senior Vice President & C.O.O.
  Veolia Transportation
- Jose-Luis Mesa
  Director, Miami-Dade MPO
- Louis Sanders
  Director of Research and Technology, APTA
- Eric Schreffler
  Director of Research, TDM Institute
  Association for Commuter Transportation
- Donna Vlasak
  Senior Program Officer
  Transportation Research Board
- Joel Volinski
  Director, NCTR

Year 11 Accomplishments

Research
The 11th year of the NCTR program (FY 2010) has supported 13 projects approved by the NCTR Advisory Committee. These projects consist of 4 core programs that will be conducted throughout the life of the NCTR program and 9 newly-selected research projects that explore methods to accomplish the goals of the U. S. DOT, and the Center, in enhancing the performance of public transportation:

- National Transportation Demand Management (TDM) and Telework Clearinghouse
- ongoing production of teleconferences and Webcasting
- graduate student professional development
- Journal of Public Transportation
In FY 2010, in addition to projects that fall into these core program areas, research topics were solicited from public transportation professionals throughout the U.S. and Canada. More than 75 research ideas were received, and 9 were selected for funding:

- An Assessment of Public Transportation Markets Using NHTS Data (Xuehao Chu, CUTR, 77920)
- Improving the Value of Travel Time Savings Estimation for More Effective Transportation Project Evaluation (Vicky Perk, CUTR, 77921)
- Project UCARE: Uniform Cost Accounting and Reporting Elements for TDM (Phil Winters, CUTR, 77922)
- Exploring Opportunities to Expand Public Transportation Services in Florida through Potential Private Sector Participation: Phase I—Analysis of Contracting for Fixed Route Bus Service (Stephen Reich, CUTR, 77923)
- Florida Bus Maintenance Staffing Practices (Jay Goodwill, CUTR, 77924)
- Exploration of Transit's Sustainability Competitiveness (Steve Polzin, CUTR, 77925)
- Enabling Cost-Effective Multimodal Trip Planners through Open Transit Data (Ed Hillsman, CUTR, 77926)
- Tracking Costs of Alternatively-Fueled Buses in Florida (Stephen Reich, CUTR, 77927)
- High Speed Rail (HSR) Station Area Access (Rob Gregg, CUTR, 77928)

The following indicates the titles and project numbers for the seven NCTR research projects completed during FY 2010. A sample summary of three of these projects follows in the text below. These projects are available in html and pdf formats on the NCTR Web site at www.nctr.usf.edu.

<table>
<thead>
<tr>
<th>Summary Listing of FY09 Completed Research Projects in FY2010</th>
<th>Project ID#</th>
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<tbody>
<tr>
<td>Regional Fare Policy and Fare Allocation, Innovations in Fare Equipment and Data Collection (Ann Joslin, CUTR, 77705)</td>
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<tr>
<td>Guidebook on Using American Community Survey Data for Transit Planning (Xuehao Chu, CUTR, 77802)</td>
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<tr>
<td>Evaluation of Smart Video for Transit Event Detection (Debbie Sapper, CUTR, 77807)</td>
<td></td>
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<tr>
<td>Evaluation of Electronic Data Recorder for Incident Investigation, Driver Performance, and Vehicle Maintenance (Debbie Sapper, CUTR, 77808)</td>
<td></td>
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<tr>
<td>Utilizing Information Technology in Innovative Marketing Approaches for Public Transportation (William Morris, CUTR, 77810)</td>
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<tr>
<td>Investigation of the Feasibility of Toll and Transit Agency Equity Sharing (Stephen Reich, CUTR, 77903)</td>
<td></td>
</tr>
<tr>
<td>Evaluation of Camera-Based Systems to Reduce Transit Bus Side Collisions (Pei-Sung Lin, CUTR, 77905)</td>
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Education

NCTR and its parent organization, the USF Center for Urban Transportation Research, continue to support initiatives to enhance professional development of the current and next generation of transportation professionals. These initiatives constantly are modified to reflect evolving needs and resources. Student interest in transportation remains strong, with many professionals pursuing updating of their credentials to remain competitive in a more challenging employment environment. There is a growing recognition of the role public transit will play in transportation in the future and an awareness of how issues such as economic competitiveness, sustainability, funding, and climate impact will influence transportation. The continuing extreme budget pressures on university resources and costs are pushing technology solutions and innovative strategies to the forefront.

Course enrollment remains strong, with a continuing shift to higher shares of part-time, certificate, and distance-learning students and fewer full-time graduate students. Job placement is more challenging than in the past but remains stronger than many professions. Planning-focused professionals appear to have a stronger employment environment than do design- or engineering-focused students. The program continues to be proud of its placement record, with numerous students finding increasingly prestigious employment opportunities.

CUTR faculty continue to supplement the academic teaching faculty, offering a breadth and depth of teaching and research opportunities well beyond that which could be supported by the tenure-track faculty alone.

Transportation Certificate Program

CUTR’s newest certificate, the Transportation Systems Analysis Certificate, has been well received, with ongoing inquiries and a growing roster of students pursuing it. The distance learning feature makes it particularly attractive for continuing education for working professionals. We have approached the USF Department of Civil and Environmental Engineering about moving ahead on the implementation of a complementary Transportation Planning Certificate that would target both engineers and non-engineers and would include more opportunities for non-engineering undergraduates, with approval anticipated in the next academic year.

NCTR has continued to explore mechanisms that would enable more graduate student in other universities to take transportation courses at USF and have them be accepted easily as credit toward their degree at their primary university. To this end, CUTR is participating in the Transportation Leadership Graduate Certificate Program, www.transleader.org/index.php, a national initiative to encourage and enable students to take specialized courses at various universities that are eligible towards a national certificate. USF has offered two courses, “Transportation and Land Use” and “Public Transportation,” as certificate-eligible courses. The first offering of “Public Transportation” as part of this program is scheduled for Spring 2011.

Other Education Initiatives

Several other initiatives continue to receive attention. The undergraduate course “Transportation and Society,” designed to introduce transportation to undergraduates from various disciplines, remains popular and is now being offered as a distance learning course.

Distance learning delivery has transitioned to use Elluminate Live™ software to enable an easier, more flexible, and lower-cost method for delivering distance learning courses. More courses are being taught through distance learning.
NCTR Student of the Year: Martin Akerman

Martin Akerman served as an NCTR Graduate Research Assistant while earning his master’s degree in Management Information Systems and Decision Sciences in the USF College of Business. During that time, he served as lead application developer in several projects that focused on innovative uses of the Internet and information technologies to increase efficiency, maximize mobility options, and promote safety and security in transit. His responsibilities included project task management, development of many transportation-related Web sites and Web applications, and a Web effort to help both truck and passenger car drivers understand and deal with the hazards of aggressive driving.

Martin was awarded the Latino Scholarship for outstanding academic achievement and was on the National Dean’s List from 2004-2006. He was recognized by the USF College of Business Administration with a faculty scholarship and was a member of Phi Kappa Phi. As a graduate student, his entrepreneurism brought university faculty together to help shape and define the field of Transit Informatics. During a USF visit by RITA Administrator Peter Appel to learn more about NCTR’s work, Martin was offered an internship to work at RITA in Summer 2010, during which he assisted the Administrator with integrating old databases with new databases.

Upon receiving his master’s degree, Martin joined the CUTR faculty. His future goals include the continuation of development in the field of Transit Informatics and assisting NCTR and CUTR in their efforts to remain in the forefront of transit research in the new age of technology.

Technology Transfer

Excellent research is of limited value if the results are not made available to as many parties as possible that might benefit from the findings. Extensive technology transfer is a key determinant of NCTR’s value. The following sections summarize specific accomplishments in the area of technology transfer over the last year.

Professional Activities

NCTR researchers continue to have significant involvement with partners in the public transportation industry, including serving on many Transportation Research Board (TRB) committees and holding leadership positions in the American Public Transportation Association (APTA), the Association for Commuter Transportation (ACT), and the Institute of Transportation Engineers (ITE). This has created an opportunity to tout the NCTR program through solicitation of project ideas from organization members and in the transfer of research results.

Training

During FY 2010, NCTR researchers were active in either providing or facilitating the following training sessions:

- AICP Prep Class - Suncoast Chapter APA
- GIS in Transit Conference
- Grants Management Training Workshop
- Introduction to Urban Transportation Planning
- ITS and Traffic Management
- Land Development & Access Management
- MPOAC Weekend Institute For Elected Officials
- NTI OpenStreet Webinar
- NTI Advanced Mobility Device Securement
• NTI Infectious Disease Awareness and Prevention
• Substance Abuse Management Compliance Program Update
• Transit Service Options
• Trends Affecting Transportation Systems
• TRIMMS Model
• Your Commuting Carbon Footprint
• National Transit Database Reporting & Data Collection Seminar
• Speed Monitoring Data Collection Summit

Florida Operator Training Program
• Conflict Avoidance: The Art of Maintaining Control
• Curbing Absenteeism in the Transit Workplace
• Fatigue Awareness Seminars for Transit Agencies
• Instructor’s Course in Bus Operator Training
• Instructor’s Course in 1-Day Paratransit Operator Training
• TSI Instructor’s Course in Excellence

Florida RTAP
• Paratransit Management & Operations
• Handling Transit Customer Complaints Webinar
• Maintaining Ridership in Tough Times Webinar

FPTA/FDPT/CUTR Professional Development Workshop
• Alternative Mobility Approaches
• Are Flexible Leadership Styles Effective?
• Effective Presentation Skills I: PowerPoint Do’s and Don’ts
• Effective Presentation Skills II: The Do’s and Don’ts of Effective Speaking
• Emergency Planning for Elderly and People with Disabilities
• Finding Positives in Difficult Times
• Fuel Efficiency and Transit’s Role in Environmental Awareness Initiatives
• Getting Your Message Out with Social Media
• It’s All About Change
• Managing Employee Performance Problems
• Marketing Session: Public Involvement and Advocacy
• New Drug and Alcohol Training Media
• ADA Complementary Paratransit Guidance
• System Safety Program Plans & Security Program Plans
• TDP Service & Capital Planning: Tips and Tools
• Transit Emergency Management and Evacuation Planning
• Transit Grants Overview and Compliance
• Transit in Growth Management & Sustainability
• Transit ITS
• Transit Procurement

STTTAP
• Integrating Transit Applications: Defining Data Interfaces Using TCIP
• ITS Regional Workshop
• NTI National Transit Database
• NTI System Security
• Reasonable Suspicion Determination for Supervisors
• Securing Community Mobility
• Substance Abuse Management Compliance Program Update
• Supervisor’s Certification Course
• Transit Industrial Safety Management
• Transit Threat and Vulnerability
• Radio Communications for Transit Dispatch Webinar

TDM
• Bicycle and Pedestrian Programs
• Boosting Morale, Performance, and Savings via Compressed Workweeks
• Commuter Choice Support/Smart Commute
• Creative Excellence for Successful Employer Programs
• Creative Thinking for the TDM Professional
• Effective Business Communication Skills
• Encouraging and Supporting Bicycling Through Employer Initiatives
• Introduction to Car Sharing
• Introduction to Parking Management
• Introduction to Telework
• RideShare Options
• Tweeting Demand Management - Doing an About Face(book) on Marketing Travel

Journal of Public Transportation

The Journal of Public Transportation is a respected international journal containing refereed papers on current, original research and case studies associated with public transportation and related policy issues. Topics are approached from disciplines including economics, engineering, planning, BRT, GIS, finance, and safety, and include methodological, technological, and financial perspectives, with emphasis on the identification of innovative solutions to public transportation problems. The journal has nearly 2,200 subscribers from all around the world and boasts a distinguished editorial board.

FLOW Newsletter

In 2007, NCTR initiated a new e-newsletter, FLOW: Moving People and Ideas. FLOW is another example of how NCTR shares the information generated through its research. The newsletter summarizes recently completed projects, provides updates on the NCTR education program and student accomplishments, and directs subscribers on how to access NCTR’s wealth of information.

Net Conferencing: Learn More—Travel Less

Netconferences provide a cost-effective method for reaching large groups of transportation professionals in real-time, requiring only a telephone, computer, and an Internet connection. All NCTR netconferences are available for on-demand viewing after the live presentation from the NCTR Web site at www.nctr.usf.edu.

As with the past several years, NCTR recognizes the importance of partnering with other groups to expand our reach. For example, we have partnered with chapters of the Association for Commuter Transportation (ACT) to host netconference events in their cities for ACT members and non-members. These events are held at 15 to 30 locations and attract up
to 200+ people for each event. In FY 2010, NCTR sponsored the following netconferences in partnership with ACT:

- **Boosting Morale, Performance, and Savings via Compressed Work Weeks’’ Netconference (June 2010)**
- **Creative Excellence for Successful Employer Programs (March 2010)**
- **“Tweeting Demand Management—Doing an About Face(book) on Marketing Travel Choices” (October 2009)**

**Website**

The NCTR Web site attracted nearly 23,000 unique visitors in FY 2010. The top 10 downloads continue to reflect interests in a range of public transportation topics and audiences that benefit from NCTR research, education and technical assistance efforts:

1. *Journal of Public Transportation*, Volume 12, Issue 1
4. Quantifying Net Social Benefits of Vehicle Trip Reduction Impacts (77805)
5. Development of a Large Bus / Small Bus Decision Support Tool (77713)
6. Impacts of More Rigorous ADA Paratransit Eligibility Assessments on Riders with Disabilities (77721)
7. Programs That Match Seniors With Volunteer Drivers (77717)
9. Tweeting Demand Management—Doing an About Face(book) on Marketing Travel Choices (handouts from netconference)

**Peer-to-Peer Exchanges**

NCTR has nearly 4,900 active subscriptions to its public transportation-related listservs, an overall net increase of 780 subscriptions (19%) in FY 2010. All NCTR abstracts, announcements, and listserv postings also are published as RSS feeds. This method allows NCTR to deliver information to the desktop of transportation professionals and others (e.g., customized Google or Yahoo home page) without cluttering email inboxes.

**Stakeholder Support**

Building and maintaining customer relationships are critical for growth and continued success in business. NCTR takes the approach that this holds true for technology transfer and does not pretend to be a one-stop shop with all the answers; we do, however, seek to be the first stop. NCTR wants to make it easier for people to quickly get answers to their questions. We realize that achieving our mission of making public transportation and alternative forms of transportation safe, effective, efficient, desirable, and secure requires the establishment of a range of relationships – NCTR to the stakeholder and as peer-to-peer. The listservs described above help peers get immediate answers. However, many people ask the similar questions, and new subscribers may have missed the responses to a similar question. Consequently, we are using the leading customer relationship management (CRM) solution to provide intelligent self-service options from people to search frequently-asked questions drawn from many of the questions posed via the listservs. This approach allows NCTR...
to respond promptly to customer questions while keeping costs low. Access to over 625 frequently-asked questions, ranging from case studies to job descriptions to commuter benefit implementation, are contained in the NCTR CRM. This self-service approach provides a means to reduce the total number of basic inquiries or repeat requests that require personal attention by NCTR researchers. Questions to NCTR also help identify research needs and topics for netconferences.

Best Workplaces for Commuters™ is an NCTR-supported initiative to reach out to private and public employers to enhance the understanding and productivity of programs aimed at increasing transit ridership, decreasing traffic congestion, and reducing emissions and energy use. Since assuming management from the Environmental Protection Agency, NCTR has focused on establishing Best Workplaces for Commuters™ as a community of employers. In FY 2010, NCTR introduced a $230 membership fee for workplaces that meet the National Standard of Excellence as established by the Environmental Protection Agency and enhanced by NCTR to help to continue to expand the program. Approximately 200 workplaces are members (www.bestworkplaces.org).

**Conclusion**

At the completion of its 11th year, CUTR’s National Center for Transit Research continues to produce a large volume of high-quality research of practical value to public transportation agencies and commuter assistance programs throughout the country. The results of the research are being effectively distributed through a variety of means, including new electronic techniques that allow fast and flexible access to the information NCTR is producing. The program is helping to cultivate the next generation of transportation professionals by providing opportunities for students who assist in the research being conducted. The vast majority of them are joining public and private sector transportation agencies upon graduation. NCTR also contributes to a national interdisciplinary transportation certificate program that will attract students and current practitioners to upgrade their skills and credentials.

NCTR always has enjoyed a strong relationship with the Florida Department of Transportation and is leveraging UTC program funds through partnerships and contracts with transportation authorities and the Federal Transit Administration. The research faculty and students of NCTR look forward to contributing to the enhanced performance of public transportation agencies throughout the nation.
After 22 years of outstanding service, CUTR Director Ed Mierzejewski has retired from CUTR. But don’t expect him to take it easy. “Retiring? I’m not retiring, I’m too young for that!” responded Mierzejewski. “I’m not ready to give up 40 years of experience in transportation planning and engineering only to wake up every morning and decide whether I want to play golf or go fishing.”

Before joining CUTR, Mierzejewski spent 18 years as a private consultant in transportation engineering and planning and has accepted a position in the Tampa office of national engineering and planning firm Gannett Fleming, Inc. “I’ve been at CUTR for 22 years, the last 9 as director. Some people feel like they’ve had jobs, but I have had a career in the transportation engineering profession,” he explains. “So I have a hard time imagining being totally disengaged from my work.”

CUTR was established in 1988 with Mierzejewski as one of the first staff. He has been integral to its growth into a nationally-recognized organization with more than 50 experts in planning, engineering, and public policy. “We have built an amazing group of people here at CUTR,” he says with genuine pride. “While we are nationally recognized, I have also enjoyed the opportunity to mentor individual students along the way. I still get mail from students from 10 to 15 years ago who believe we had a positive impact on their career and outlook on life.”

Mierzejewski’s advice for the next generation at CUTR is clear. “To be successful in an environment like CUTR, you need to maintain an entrepreneurial attitude,” he says. “We are almost exclusively dependent on contracts and grants to pay our salaries. So it is important that a new director has that entrepreneurial bent.” He strongly believes that CUTR’s staff of professionals are very good at doing just that. He explained that when he assumed the directorship, he asked every employee individually about why they wanted to work at CUTR since the money was obviously somewhere else. The overwhelming response was that people felt like they could make a difference at CUTR. “So I feel particularly good about the staff we have here,” he concludes, then pauses and adds, “Leaving something like this is always a little bittersweet.”

So what does a civil engineer do with his unretirement? Mierzejewski is the incoming president of the Alpha House of Tampa, a non-profit founded in 1981 to assist pregnant women in times of crisis. He and his wife Aline also mentor engaged couples prior to getting married and look forward to spending more time on these pursuits. They also enjoy traveling.

“We celebrated our 40th anniversary this year by spending a few weeks in Italy this fall. Italy’s roads, bridges and aqueducts, some going back over 2,000 years, are amazing,” he explains. He has admiration for Italy’s modern train system and enjoyed watching the typical Italian driver’s disdain for traffic devices and the Vespas swarm to the front of autos while stopped for a red light.

In his new endeavor, he hopes to “get back to my technical skills roots” in private consulting. His advice to students today is to keep active in professional organizations like the Institute of Transportation Engineers (from which he has received several awards for distinguished service) and to maintain good relationships, starting with fellow students and professors in college.

“You never know,” says Mierzejewski, “that down the road somewhere, you will be glad you did. The world moves on these relationships.”
John Wiencek, Dean of USF’s College of Engineering, has named Steve Reich as Interim Director of CUTR following the retirement of Ed Mierzejewski. Reich has served as Program Director of the Transportation Program Evaluation and Economic Analysis group at CUTR since 1999 and formerly was Executive Secretary of the Maryland Transportation Authority and Assistant Deputy Secretary of the Maryland DOT. In 2008, he served as interim director of the Tampa-Hillsborough County Expressway Authority. A national search for a permanent director of CUTR is under way, with the next director expected to take the helm during the summer of 2011.