

## Peter H. Appel Confirmed as Administrator of the Research and Innovative Technology Administration



Peter H. Appel, RITA Administrator  
*U.S. DOT photo*

Peter H. Appel was confirmed by the U.S. Senate as Administrator of the U.S. Department of Transportation's Research and Innovative Technology Administration (RITA) on April 29, 2009.

RITA brings together important data, research and technology transfer assets of the department, including: the John A. Volpe National Transportation Systems Center; the Bureau of Transportation Statistics; Transportation Safety Institute; Research, Development and Technology; University Transportation Centers; and the National Transportation Library. RITA also provides strategic direction and oversight of U.S. DOT's Intelligent Transportation Systems (ITS) Program.

Before joining RITA, Mr. Appel was with the global management consulting firm of A.T. Kearney, Inc. He has led business improvement initiatives for clients in the private and public sectors, with a focus on transportation and infrastructure. Mr. Appel has over 20

years of experience in transportation, and has supported organizations in the railroad, trucking, airline, and ocean shipping industries with growth strategy, supply chain improvement, post-merger integration, public-private partnerships, and other key business and policy issues. Previously, he served as the Special Assistant to the Administrator of the Federal Aviation Administration, and as Assistant Director for Pricing and Yield Management at Amtrak.

Mr. Appel earned his bachelor's degree from Brandeis University in Economics and Computer Science with Highest Honors, and received his Master of Science in Transportation from the Massachusetts Institute of Technology.

During a recent visit to the Volpe Center, Mr. Appel held a Town Hall meeting with Volpe Center staff and met with several staff members and teams recently recognized at the Greater Boston Federal Executive Board's Excellence in Government Awards ceremony, the premier celebration of excellence in the local Federal community.

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## COI Spotlight— Safety Management Systems

From the very beginning of its history, safety has been the primary mission of U.S. DOT. This is true for the Volpe Center as well, as can be seen in this month's spotlight on our Center of Innovation (COI) for Safety Management Systems. Led by Dr. Marc Mandler, the COI's goal is to help the Volpe Center be recognized as experts in improving transportation safety by helping customers to apply state-of-the-art safety management system principles to their activities.

The COI deploys a variety of tools and capabilities to achieve this goal. COI staff continually update their own skills and expertise through training, technical exchanges and meetings. They re-engineer customer safety management business processes. They develop, manage and host IT systems for safety

### Centers of Innovation

- Multimodal Systems Research and Analysis
- Safety Management Systems
- Environmental and Energy Systems
- Freight Logistics and Transportation Systems
- Physical Infrastructure Systems
- Communication, Navigation, Surveillance (CNS) and Traffic Management Systems
- Human Factors Research and System Applications
- Advanced Vehicle and Information Network Systems

data. Above all, a major thread that runs through the Center's activities is enabling the acquisition, maintenance, analysis and distribution of transportation safety data to support effective measures to reduce the number, severity and cost of transportation accidents to both customers and society as a whole.

The current major customers for the Center for Safety Management Systems are the Federal Aviation Administration (FAA), the Federal Motor Carrier Safety Administration (FMCSA), the National Highway Traffic Safety Administration (NHTSA), and the Pipeline and Hazardous Materials Safety Administration (PHMSA). Among the Center's portfolio of projects are:

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## COI Spotlight *Continued*



Federal Motor Carrier Safety Administration truck inspection.

*Volpe Center photo by Julie Nixon*

- To support the FAA, the Volpe Center developed and manages the Safety Performance Analysis System (SPAS), which is used by aviation safety inspectors and safety program managers as a valuable information source.
- Since its establishment in 2000, the FMCSA has turned to the Volpe Center for assistance in organizing their major programs.

The Safety Management Systems COI is now the home for many of these major support activities, including mission-critical information technology capabilities and applications that enable FMCSA to monitor compliance with motor carrier safety laws and procedures. The COI is also supporting FMCSA's major Comprehensive Safety Analysis 2010 (CSA 2010) initiative.

- The Volpe Center has also developed several key data systems for NHTSA, such as ARTEMIS and CIREN. ARTEMIS arose partly as a response to the issue of defective tires on sport utility vehicles and enables NHTSA to discern potential safety threats related to the performance of individual vehicle components. The Crash Injury Research and Engineering Network (CIREN) Electronic Data System is a vital tool for NHTSA in the collection and analysis of data on transportation crashes.
- The Center developed and implemented the Safety Monitoring and Reporting Tool, or SMART, for PHMSA. SMART is a web-based information system that includes data on pipeline accidents, technical specifications and other key information useful to pipeline inspections, monitoring and safety improvements.

## National Conferences Focus on Hurricane Season Preparedness

With the commencement of hurricane season in the Atlantic Ocean on June 1, transportation users and service providers need to pay heightened attention to tropical weather forecasts and the potential for damaging storms along the Gulf and Atlantic Coasts. A leader in emergency transportation, the Volpe Center recently participated in two national meetings on hurricane preparedness.

The 31<sup>st</sup> National Hurricane Conference in Austin, Texas provided the Volpe Center with the opportunity to meet with other federal, state and local government colleagues and attend training and workshops on improving hurricane preparedness, response, recovery and mitigation in order to save lives and property in the U.S. and the tropical islands of the Caribbean and Pacific. Transportation, evacuation, business, industry and economic stability, public awareness/media, and sheltering and mass care were workshop topics.

The Hurricane Gustav and Ike After Action Meeting focused on response and recovery activities in Texas and Louisiana in the

wake of these two storms.

Mr. Terry Sheehan, Volpe Center staff member and U.S. DOT's Region 1 and 2 Regional Emergency Transportation Representative and Transportation Emergency Support Function (ESF) lead for the Northeastern U.S. under the Federal Emergency Management Agency's National Response Frame-

work contributed to the meetings. During Hurricanes Gustav and Ike in 2008, Sheehan was the lead manager at the Baton Rouge LA Joint Field Office for the ESF-1.

Knowledge gained from these conferences will be used to enhance regional emergency transportation response cadre training, which will be offered at the Volpe Center this summer.



Bay St. Louis Beach Boulevard in Bay St. Louis, Mississippi during recent hurricane.  
*Volpe Center photo by Terry Sheehan*

## Volpe Center GPS Expert Testifies Before Congressional Subcommittee



Karen Van Dyke, National Expert on Global Positioning System.  
*Volpe Center photo*

Ms. Karen Van Dyke is the Volpe Center's National Expert on Global Positioning System (GPS), and is also serving as the Acting Director for Positioning, Navigation and Timing in the U.S. DOT's Research and Innovative Technology Administration (RITA). A leading DOT authority on this topic, Ms. Van Dyke was recently asked to testify before the National Security and

Foreign Affairs Subcommittee of the House Committee on Oversight and Government Reform in response to a GAO report on potential GPS availability gaps beginning in two years.

Ms. Van Dyke's testimony focused on the topic of the criticality of GPS to civilian users. She discussed the importance of GPS positioning, navigation and timing (PNT) services and the need to ensure the sustainment of the GPS constellation. The technology enhances public safety by preventing transportation accidents and reducing the response time of emergency services. It allows agriculture operations to continue through low visibility field conditions to apply chemicals precisely, reducing environmental impact while also reducing production costs. Of particular importance to the U.S. DOT is the operation of the FAA's NextGen Air Transportation System which requires the precise navigation and surveillance capabilities based on GPS.

Ms. Van Dyke also stated that the U.S. DOT is confident that the Department of Defense

will continue to operate GPS at or above the minimum GPS Performance Standard commitment and will find innovative methods to extend the life of the GPS satellites to prevent any gaps in availability. However, GPS is vulnerable to interference that can be reduced, but not eliminated. The Volpe Center issued the "Vulnerability Assessment of the Transportation Infrastructure Relying on the Global Positioning System" in 2001. This assessment indicated that, due to the reliance of transportation on GPS signals, it is essential that threats be mitigated and alternative back-ups be available, and the system be hardened for critical applications.

Potential back-up capabilities to GPS are being explored as part of a National PNT Architecture study. The overarching goal of the architecture, with GPS as its cornerstone, is intended to overcome identified capability gaps, and achieve an evolutionary path to providing integrated space-based, terrestrial, and autonomous solutions in the 2025 time period that will ensure the continuity of government-provided PNT services.

## Chair of Transportation Research Committee Completes Successful Term

Ms. Anya A. Carroll, the Volpe Center's National Expert in Multimodal Surface Transportation Operations, is wrapping up a productive six-year term as chair of the Transportation Research Board (TRB) Committee on Highway-Rail Grade Crossings. The committee deals with the safety and related characteristics of at-grade highway intersections with both heavy and light rail lines – such as economic factors, traffic flow and countermeasures.

The Highway-Rail Grade Crossings Committee also serves as a focal point for promoting safe, cost-effective and efficient traffic control technological innovations and strategies. It identifies and prioritizes research needs; promotes research into new systems and strategies; and fosters cooperation, coordination and the sharing of information among researchers, government agencies and the railroad industry, nationally as well as internationally.

The committee recently re-established a web site with over 900 citations from the highway-rail grade crossing literature. The group has also grown to over 30 members and now includes more than 100 friends of the committee from North America and overseas in its information distribution community.

In addition to sessions at the annual TRB meetings, the committee has also held mid-year meetings with the Institute of Transportation Engineers, Operation Lifesaver, Inc. and regional conferences. Special sessions have been held at various locations around the world including Melbourne, Australia; Sheffield, United Kingdom; Paris, France; and Montreal, Canada.

There are several additional recent and current Volpe Center chairs of TRB committees and groups. Bob Dorer, Director of the COI for Physical Infrastructure Systems, chairs the Rail Group, which is one of the



Anya A. Carroll, National Expert in Multimodal Surface Transportation Operations  
*Volpe Center photo*

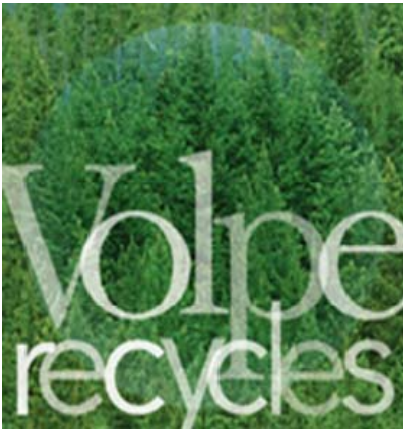
eleven TRB groups to which committees report. Other TRB committee chairs include Doug Lee of the COI for Multimodal Systems Research and Analysis (Transportation Economics), and Gregg Fleming (Director) and Dr. Judith Rochat of the COI for Environmental and Energy Systems (Transportation-Related Noise and Vibration).

## Cambridge Presents Go Green Award to the Volpe Center

The City of Cambridge, Massachusetts, recently named the Volpe Center as the Go Green winner in the large business category for waste reduction for 2009.

Dr. Richard John, Director Emeritus and Acting Director of the Volpe Center, accepted the award at the City of Cambridge's annual Go Green Business Awards reception on May 26. Volpe Center Green Team members Adam Klauber and Eran Segev also attended. As part of its Go Green Month Celebration each May, the City of Cambridge recognizes local businesses and institutions for outstanding environmental efforts with the Go Green Business Award. Awards are presented in the following categories: city employee; climate change; community sustainability; energy; storm water management; waste reduction and recycling.

The Volpe Center increased its recycling rate from 4 percent in 2006 to 50 percent in 2008, and set an annual goal to achieve at least 70 percent, purchases paper products with 30%-100% post-consumer recycled content, and has reduced waste by making payroll and timesheet



systems paperless. If Volpe achieves a 70 percent recycling goal in the future, the facility will reach the top one percent nationwide of those achieving this goal. To put this in perspective, only one city in the United States has a recycling rate of 70 percent.

## Greater Boston Federal Executive Board Recognizes Volpe Center Staff



Peter Appel, RITA Administrator and Richard R. John, Director Emeritus and Acting Director with two of the recent recipients of the Greater Boston Federal Executive Board's Excellence in Government Awards, the premier celebration of excellence in the local Federal community. Pictured above are Judith Burki-Cohen, Human Factors Research and Systems Application Center of Innovation, who received the Professional Employee of the Year Award, and Hadar Rosenhand from the Human Factors Research and Systems Application Center of Innovation, who received the 2009 award for Administrative Support and Excellence.

Volpe Center's Maritime Safety and Security Information System Team was presented with the Creativity and Innovation Team Award.

*Volpe Center Photo by Diane Wells*


## Volpe Center Highlights

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