

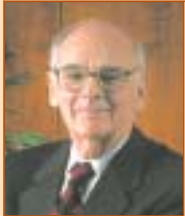


HIGHLIGHTS

Cambridge, Massachusetts

Sept/Oct 2003

National Transportation Systems Center



Richard R. John

Director's Notes

Working with National Park Service and Other Federal Agencies

As part of the Research and Special Programs Administration, the Volpe Center is committed to the Administration's strategic goal of protecting our natural environment and national heritage from harmful transportation-related consequences. The Volpe Center is especially proud of its work in recent years supporting transportation initiatives of the National Park Service (NPS). The NPS mission is to preserve unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. As the U.S. population grows, the park service has become aware that managing increased visitation and the potential negative environmental effects of transportation in the parks is an essential component of fulfilling the park's mission.

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- Enhancing flight-tracking systems
- Supporting air traffic control communications in Iraq
- Developing asset management tools
- Adding value with organizational redesign

FOCUS



North Bridge in Minute Man National Historical Park in Concord, Mass., is the site of the "shot heard 'round the world" and the opening battle of the American Revolution. Important historic sites such as this can be jeopardized by the effects of increased vehicle traffic in and around national parks. The Volpe Center is actively engaged in NPS efforts to provide efficient park access while preserving natural and cultural resources for future generations. Projects range from individual park traffic studies to a system-wide transportation plan. (NPS photo)

Resolving Transportation Challenges In and Around National Parks (NPS)

Every year more people visit our national parks to explore nature and learn about U.S. history and culture. In fact, 285 million people – equivalent to the entire U.S. population – visit national parks annually, and that number is expected to increase to 367 million by 2020. Growing visitation not only strains existing park transportation systems, but the resultant vehicle traffic and pollution can spoil visitor experience and threaten precious natural and cultural resources.

Accordingly, the National Park Service (NPS) is exploring new ways of planning for and providing transportation that will help meet its dual mission: to protect the extraordinary sites in its care while providing for

public access and enjoyment. Alternative transportation systems (ATS) provide viable options to private vehicles, and can integrate all means of travel within and around a park. In 2000, the Volpe Center began supporting the NPS, in particular the Alternative Transportation Program, in addressing complex transportation issues, applying an integrated approach to ensure efficient, cost-effective, environmentally sound projects. Beginning with a project at Independence National Historical Park in Philadelphia, this work has ranged from park traffic studies to multi-site master plans, to the first NPS-wide, long-range transportation plan.

Integrated Alternative Transportation Planning

In 1998, the Transportation Equity Act for the 21st Century (TEA-21) provided increased opportunities for the NPS to implement sustainable transportation. A new approach was needed – one that enabled parks to coordinate their efforts with other stakeholders, such as regional and state planning agencies and local communities. In 2001, the Volpe Center was called on to help guide the NPS Alternative Transportation Planning process as well as train NPS personnel to follow the process. And several times a year, NPS asks Volpe to help assess a particular project's progress and make recommendations for planning, development, and implementation.

Additionally, Volpe teams are working on ATS planning projects for several NPS units. Key issues include:

- Park access
- Vehicle/visitor circulation
- Visitor experience
- Regional transportation links
- Visual impact
- Land use/environmental impacts
- Parking management
- Stakeholder interests.

Solving Complex Problems

Cape Cod's regional population triples every summer and its year-round population is the fastest growing in the Northeast; therefore, transportation is a high-profile issue with many stakeholders. Volpe collaborated with the NPS – and worked in concert with nearby towns and statewide, regional, and local organizations – to develop a 25-year plan encompassing both operational and limited capital improvements for alternative transportation to, from, and within the Cape Cod National Seashore.

A Vast and Varied System

The Park Service comprises parks, recreation areas, parkways, and national monuments in 49 states and 5 territories. The 388 park units range widely in size and type from historic buildings in downtown Boston, to the Grand Canyon, to Alcatraz Island in San Francisco Bay. Means of public access are just as varied – scenic parkways, park roads, ferries, shuttle buses, rail systems, and bike and pedestrian trails.

Volpe's ATS planning may assess:

- Multiple modes: shuttle, bus, ferry, trolley, or rail
- Clean-fuel vehicles
- Short- and long-term options
- Enhancements to existing transportation systems, such as integrating traveler information tools
- Integration with regional transit or
- Roadway improvements.

Some parks pose particularly complex operational challenges. To improve access to four diverse NPS units around Boston Harbor, a Volpe team developed a water-based transportation master plan. The Volpe Center produced a framework for linking the units via ATS to simplify park visits, especially multi-site trips, and help alleviate traffic congestion and pollution.

Another NPS unit with a wide range of settings, the National Parks of New York Harbor, covers 26,000 acres in the heart of the New York metropolitan area, encompassing a network of sites including the Statue of Liberty, various Manhattan sites, and the Gateway National Recreation Area. Volpe produced a waterborne transportation study of the area, including a preliminary ferry service concept plan. The next phase will provide in-depth analyses of land-side ferry access, ridership forecasts, fee structures, finances, traffic management, operations, and facilities planning.



Volpe has developed several water transportation plans, including a master plan for sites in and around Boston Harbor.

Contributing to a City's Revival

Volpe recently completed a planning study to help Lowell National Historical Park, the City of Lowell, Massachusetts, and other partners assess opportunities for implementing a light-rail system reminiscent of the city's late 19th/early 20th century trolley lines. The city is experiencing an economic resurgence, and the proposed system, which uses the park's existing line as a backbone, is designed to improve mobility downtown, where streets are narrow and auto congestion is common. The Center is now engaged in follow-on planning and environmental assessment.

Maintaining Historic Character

The historic character of a park unit can be jeopardized by traffic congestion, especially when heavily traveled roads or trails are also historic sites. For example, the main road used for traveling among various sites in Minute Man National Historical Park in Massachusetts – Route 2A, or “the Battle Road” – is an historical landmark itself. Volpe prepared a traffic study that examined traffic conditions and projections in the context of the anticipated expansion of a nearby airport and growth in the surrounding Massachusetts communities. This study formed the technical basis for a shuttle feasibility study that Volpe is currently conducting.

Every year, more than 1.7 million people visit the Gettysburg National Military Park. Although it surrounds the Borough of Gettysburg, Pennsylvania, the park is not linked to the town by public transportation; during peak summer visiting periods, the town and park suffer from heavy traffic congestion and overflow parking. The Volpe team proposed a



A Volpe-developed planning study proposes to implement a light rail system that serves the City of Lowell as well as the Lowell National Historical Park and employs trolleys similar to that shown above. (Photo by Kevin Harkins, courtesy of Lowell National Historical Park.)

shuttle service for the park and surrounding communities and identified key issues related to implementation and operation.

The Roosevelt-Vanderbilt National Historic Sites in New York comprise four separate sites linked by congested suburban roadways. Visitors rely on cars; transit options and parking are limited. Volpe identified ATS options and specified route configuration, service frequency and type, vehicles, and infrastructure requirements. The Center is now performing a shuttle feasibility study.



Volpe staff worked with the NPS Denver Service Center (DSC), which is in charge of planning a transportation hub facility for the Roosevelt-Vanderbilt National Historic Sites (above). The DSC is the NPS centralized planning, design, and construction project management office. (Image courtesy of Mark Tabor, NPS DSC)

Mitigating Suburban Sprawl

In Pennsylvania and New Jersey, Valley Forge and Morristown National Historical Parks both grapple with a problem that is familiar to many communities – their formerly rural settings are now suburban population centers. Surrounded by commercial and residential development, scenic park roads have become congested commuter routes. To help alleviate the stress on vulnerable historic sites, natural resources, and park vicinities, the Volpe Center collaborated with local stakeholders in performing traffic studies for both parks. Shuttle feasibility studies will offer additional options for congestion relief.

Helping Travelers Plan Meaningful Park Visits

Traveler information systems (TIS) are valuable tools that provide real-time transit and traffic information – when the next bus will arrive, levels of road congestion, travel time from point A to point B, or how many parking spaces are left at the beach. The Volpe Center designs systems to help national park visitors plan enjoyable visits.

At Yosemite National Park, the first phase of a TIS project includes a traffic data needs assessment, creation of a network-based travel demand model, and preparation for multimodal traffic simulation. Future phases may include design, installation, and operation of a TIS that would assist traffic circulation analysis, daily park operations, information distribution, emergency traffic management, and ATS management and operations.



One product of Volpe's TIS project at Yosemite National Park is a network flow model. The screen shot above shows evening peak-hour traffic flow (the yellow segment depicts the congestion near Yosemite Falls), and the route of the shuttle bus.

For the Massachusetts National Parks, Volpe is developing physical and electronic ways to help visitors plan trips to 18 NPS units that document a range of significant periods and events in the nation's history. A multidisciplinary Volpe team is developing a web-based TIS that goes beyond "how to get there" and helps users plan their visits in

an historical or cultural context. For example, a visitor could plan a trip to visit Revolutionary War sites in chronological order, or visit sites related to the role of women in the Industrial Revolution. The system will show visitors how to use public transit to navigate among the various park sites, most of which have been integrated into the local transit system's trip planner. The team is also developing an alternatives analysis to help determine the optimal location for a Visitor Transportation Hub that will serve as a gateway to the Massachusetts Parks.

Volpe developed a parking management system and TIS for the Sandy Hook unit of the Gateway National Recreation Area in New Jersey, which experiences severe roadway and parking lot congestion during the summer season. Park staff use parking management technology to monitor lot capacity; when lots are nearly full, en route travelers are notified via highway advisory radio and changeable message signs. The parking management system supports the Route 36 Congestion Management Plan prepared by the metropolitan planning organization in cooperation with a dozen traffic agencies and the park.

New Ways of Planning for the Future

The size and scope of the National Park Service present unique transportation needs. NPS recognizes that achieving its vision of an efficient, sustainable transportation system will require comprehensive plans that help its transportation program managers effectively articulate and demonstrate progress toward this vision. In cooperation with the Federal Highway Administration and in consultation with the Federal Transit Administration, the Volpe Center is helping the NPS develop its first service-wide, long-range transportation plan. The goal is not a prescriptive regulatory document, but rather an overarching policy framework and general guidance regarding transportation in the National Parks.

Under a new pilot program, the Volpe Center will perform a needs analysis of short-term transportation issues for the NPS Northeast Region, which stretches from Virginia to Maine. The Volpe team will determine opportunities for: ATS; connections with existing regional transit operations; transportation links among park units; and mitigation of emerging issues, such as increasing traffic congestion in formerly rural areas.

The Volpe Center supports the NPS vision of a sustainable transportation system that will enable the public's enjoyment of our National Parks for generations to come.



The Volpe-developed parking management system (PMS) for Sandy Hook is integrated with the traveler information system. As shown above:

- 1. PMS counts vehicles entering and leaving parking lots.*
- 2. Traffic counts from 9 lots are radioed to a central computer at the ranger station.*
- 3. As lots fill, rangers update park entrance staff, who inform visitors about parking. When PMS predicts that the lots will be full within 30 minutes, potential visitors can be notified by:*
- 4. Highway Advisory Radio announcements to travelers en route.*
- 5. Notices on two portable dynamic message signs along NJ Route 36.*
- 6. A dozen nearby traffic agencies via TRANSCOM.*



Sharing Rail Safety Research with South Korea (FRA)

Representatives of the South Korean National Railroad Education Center visited the Volpe Center on July 17 and 18, 2003, to discuss rail fire safety. Messrs. Wonyoung Lee, Suggui Kang, and Yongsam Kim met with Volpe staff regarding rail car material fire hazards as well as aspects of human-centered safety activities focusing on passenger evacuation and rescue. Messrs. Lee, Kang, and Kim are members of a team formed in response to a South Korean subway fire on February 18, 2003, that resulted in almost 200 deaths and more than 150 injuries. They are working to prevent human error in railroads through education, training, and the development of laws for railroad safety.

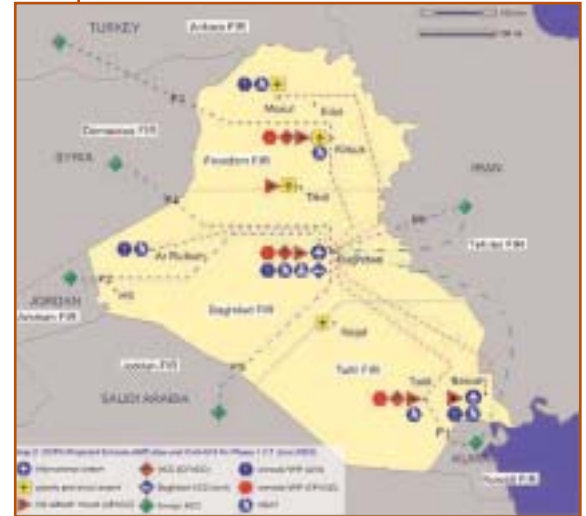
Dr. Donald Sussman, Chief of the Operator Performance and Safety Analysis Division, and Ms. Stephanie Markos, Railroad Systems Division, hosted the visit, which was coordinated with the Federal Railroad Administration (FRA). Ms. Markos provided an overview of the FRA regulations related to fire safety and the FRA-sponsored fire research program. The fire research program has investigated an alternative fire performance evaluation methodology based on Heat Release Rate and computer modeling. The preliminary results of passenger rail fire hazard analyses indicate that the proposed alternative test method could provide more accurate and cost-effective material fire performance screening. Ms. Markos and Mr. John Pollard, Operator Performance and Safety Analysis Division, also provided an overview of the FRA regulations and research program related to emergency evacuation and rescue. The results of ongoing Volpe research have been incorporated into FRA regulations, as well as American Public Transportation Association Passenger Rail Equipment Safety Standards and recommended practices for emergency signs and emergency lighting.

As chair of the Transportation Research Board's Subcommittee on Railroad Operational Safety, Dr. Sussman arranged for the South Korean team to attend the midyear meeting of the subcommittee on July 15 and 16, 2003, in Washington, D.C. Subsequently, Mr. Wonyoung Lee was accepted for membership in the subcommittee.



Volpe Assists in Establishing Air Traffic Control Communications in Iraq (FAA)

The Federal Aviation Administration (FAA) is assisting the Office of Reconstruction and Humanitarian Assistance (ORHA) in reconstituting civil aviation communication in Iraq. Especially critical is the establishment of Aeronautical Fixed Service (AFS) telecommunications between Iraq and adjacent Middle Eastern States to support the safe and efficient movement of air traffic in accordance with international standards. Since May 2003, the Volpe Center has been supporting the FAA's Business and Strategic Planning Division in this effort. Mr. Michael Reamer of Volpe's Telecommunications Division serves as technical advisor to the Lead Coordinator for the FAA and Transportation Security Administration's civil aviation assistance to the ORHA in Iraq. In this capacity, Mr. Reamer has supported the Lead Coordinator in providing guidance to the coalition forces on reconstituting the inter-Iraqi AFS communications infrastructure.



The reconstitution of Iraq's civil aviation infrastructure is considered a key component of ensuring the safe and efficient flow of air traffic in the Middle East. (Map developed by the Lead Coordinator for the FAA and TSA civil aviation assistance to the ORHA in Iraq.)

Mr. Reamer's efforts included providing a framework for defining inter-Iraqi AFS communications requirements, such as air traffic voice and data services. On behalf of the Lead Coordinator, he also prepared and assisted in the negotiation of Letters of Agreement to establish appropriate bi-lateral AFS communication services between the Coalition Provisional Authority and several Middle Eastern States, including Iran, Syria, Jordan, Turkey, Saudi Arabia, and Kuwait. As a result of this effort, a new inter-Iraqi AFS communications interface with Kuwait was established. Mr. Reamer also assisted in the evaluation and selection of a communications service provider to implement intra-and inter-Iraqi AFS communications; the development of a new network routing plan to optimize the flow of aviation data among states interfacing with Iraq; and the development of a management, operations, and maintenance plan to support the reconstituted Iraqi AFS infrastructure.

Enhancing Flight-Tracking Systems (AMC and RAF)

Volpe's Intermodal Logistics Systems Planning and Integration Division has helped the U.S. Air Force and Army, Defense Logistics Agency, and United Kingdom (U.K.) Ministry of Defense to develop functional data management and information technology strategies and systems to meet critical transportation and logistics requirements.

In recent years, both the U.K.'s Royal Air Force (RAF) and the U.S. Air Mobility Command (AMC) have benefited from sharing enhancements to flight-tracking applications developed by the Volpe Center.

The RAF Logistics Flight Data Management System (L-FDMS) is a Volpe-developed management information system that combines aircraft location data, passenger data, and cargo data to provide in-transit visibility of the U.K.'s strategic airlift. Recently, a Volpe team, led by Mr. Jack Krumm, worked with the RAF to prepare for, and pass, an important security vulnerability assessment. In June and July of 2003, U.K. information security personnel conducted an extensive set of tests, attempting to penetrate Volpe-designed security configurations; they were unable to break through the Volpe-designed secure servers. This milestone will lead to the successful security accreditation of L-FDMS and enable the RAF to deploy the software to its air bases.

AMC is responsible for Air Force and commercial-contract air mobility. The Volpe Center developed the AMC Flight Following System, which combines FAA flight data from the Volpe-developed Enhanced Traffic Management System (ETMS) with military logistic data sets. (For more on ETMS, see July/August 2003 *Highlights*.) Recently, Mr. Krumm and his team added helicopter data to the secure Volpe military flight data feed. In addition, Volpe provided AMC with software code previously developed for L-FDMS in support of the RAF that makes helicopters easily discernible from fixed-wing aircraft.

A flight-tracking system developed for the Royal Air Force by the Volpe Center recently passed a security vulnerability assessment.



Volpe Supports Strategy for Iraqi Energy Production and Distribution (USCENTCOM)

In August 2003, the U.S. Central Command (USCENTCOM) held a three-day Working Strategy Meeting at MacDill Air Force Base, Tampa, Florida, to address security and counter-smuggling problems plaguing Iraqi energy production and distribution operations. In response to a request by workshop organizers for DOT participation, the Volpe Center was asked to send a representative. Mr. Charles McCarthy of Volpe's Infrastructure Protection and Operations Division attended, along with U.S., British, and Australian military personnel who were stationed in Iraq; members of the Coalition Provisional Authority; the United Nations; and several Iraqi leaders from the Oil, Electric, and Water Supply Ministries.

The working group was tasked with identifying significant short-term improvements in the areas of electric infrastructure repairs and upgrades; oil infrastructure repairs and upgrades; fuel distribution and infrastructure security (oil and electric); and counter-smuggling. At the conclusion of the meeting, General John Abizaid, Commander of USCENTCOM, was briefed on proposed solutions.



Volpe Center Improves Business Practices

The Secretary of Transportation, Norman Y. Mineta, emphasized the need for performance-based government in the Department's 2003 Performance Plan. The Department of Transportation's organizational excellence goal is to "advance the Department's ability to manage for results and innovation." Deputy Administrator Samuel Bonasso is leading RSPA's effort to improve performance across the organization, which includes the offices of Hazardous Materials Safety, Pipeline Safety, Innovation, Research and Education, Emergency Transportation, the Transportation Safety Institute, and the Volpe National Transportation Systems Center.

A RSPA management assessment of the Volpe Center was conducted in the summer of 2003. The assessment confirmed that the Center provides a unique and invaluable capability to the Department. It also identified specific areas where improved management practices and processes could enhance the Center's performance and maximize the value of its work. Additional reviews of the Center are ongoing and their recommendations will be incorporated into the Center's improvement plan.

When the Volpe Center was established more than 30 years ago, it primarily served administrations of the DOT. However, as the Center's capabilities became more widely known, its customer base grew to include other federal, local, and international agencies, and it evolved in response to a variety of differing customer requirements. The Center welcomes the opportunity to assess, standardize, and improve its support to all clients while maintaining its commitment to meeting individual customer's needs.

In response to the assessment, Volpe Center management and staff are revising processes and management practices. Fundamental to these actions are a wide range of systemic improvements associated with deploying a robust and integrated financial/project management information system. This tool will assist project managers and RSPA management in managing cost and performance and in reporting performance to Center sponsors. The Center's infrastructure and business practices will migrate to a more mature state, and management and staff will re-focus their

"Government likes to begin things—to declare grand new programs and causes. But good beginnings are not the measure of success. What matters in the end is completion. Performance. Results. Not just making promises, but making good on promises."

President George W. Bush
President's Management Agenda 2002

The Volpe Center is applying an integrated approach to improve:

- External and internal reporting and communications
- Project management practices
- Budget and reporting practices
- Acquisition management
- Customer satisfaction.

attention on the Center's internal and external communications. These changes will modernize the Center's accountability and responsiveness to both sponsors and taxpayers.

The Volpe Center is especially aware of the importance of customer satisfaction – quality work and customer responsiveness are central to its success. The Center has received high praise in recent customer surveys, with more than 80 percent responding with “good-to-excellent” ratings regarding our ability to perform technical work to high standards. To gain further customer feedback, independent third parties will conduct annual customer surveys. Future issues of *Highlights* will provide updates on this continuous improvement process.

Adding Value through Organizational Redesign (EPA)

Dr. David Damm-Luhr of the Planning and Policy Analysis Division is in the process of completing organization systems performance work with the Water Policy Staff (WPS) of the Environmental Protection Agency's (EPA) Office of Water. He designed and facilitated a two-day offsite retreat in June 2003 and a follow-up in October 2003 in Arlington, Virginia, both geared to culminate nearly three years of Volpe's support in rethinking the policy unit's mission, core business processes, and relations with its customers and stakeholders. WPS is a primary resource for helping EPA's Assistant Administrator for Water implement national priorities.

Volpe's work began when the Director of the Water Policy Staff called on Dr. Damm-Luhr as an organizational expert to help her with issues of strategy, organization, and operations. Volpe staff interviewed office directors and conducted focus groups with office staff of the four major national water programs. They benchmarked policy offices in EPA, DOT, and other federal agencies, and worked with WPS to review and analyze the data, and then rethink the distribution of its workload to increase both internal job satisfaction and customer satisfaction.

Based on this success, the WPS Director tasked Volpe with reviewing processes among the core business lines (Policy Formulation, Economics, and Regulatory Management). The results: a new approach to planning work with an overall “investment portfolio” orientation focused on strategic priorities, better regulatory management through an Office of Water-wide process improvement, and a determination of how best to use the skills of recently added economists. WPS now has a firm foundation for the future, especially in implementing the details of its redesign as a number of important senior staff transitions take place early in 2004.



Volpe helped WPS see that to add value to their work, a redistribution of the workload among its value-added areas was necessary to increase satisfaction among staff as well as among customers. For example, more “forward thinking” and less “rapid response.”

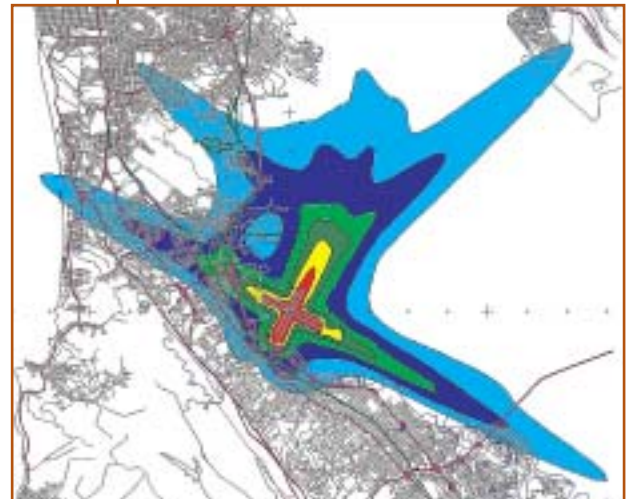
Developing Asset Management Tools (BIA)

Asset management of transportation infrastructure provides a decision-making framework that draws from economics as well as engineering. With the availability of increasingly powerful data systems, the practice of asset management has become more feasible. A multidisciplinary Volpe team, led by Mr. Walter Gazda of the Economic and Industry Analysis Division, is developing an updated Road Inventory System to improve the efficiency of data collection and management for the Bureau of Indian Affairs (BIA) Department of Transportation (DOT). The effort will involve development of an Oracle database to replace the current Cobol-based process. The new system will reduce data maintenance, facilitate data entry, and ease integration with other BIA asset management systems, including a bridge management system previously developed by the Volpe Center.

The Volpe team, working in concert with the Engineering and Operations Branch of the BIA DOT, completed the development of functional requirements and specifications in August 2003. Typical of the Volpe process, this involved gathering feedback from BIA engineers who will use the Road Inventory System. Development of the system is currently underway; completion is expected in January 2004. Volpe team members include Mr. Steve Pax of EG&G Technical Services (a Volpe on-site contractor) and Mr. Jan Popiel of Computer Science Corporation (a Volpe on-site contractor).

Published & Presented

- Mr. Christopher Roof of the Environmental Measurement and Modeling Division presented a paper at the Inter-Noise 2003 Conference in Seogwipo, Korea, held August 25 to 28, 2003. "Use of One-Third Octave-Band Spectral Data in Community Noise Models" details recent and planned enhancements to the Integrated Noise Model, a computer model developed by Volpe for the Federal Aviation Administration's Office of Environment and Energy for airport noise prediction and analysis.
- Two articles by Volpe Center staff are featured in the July/August 2003 *Public Roads* special issue on transportation and the environment, which emphasizes the importance of environmental stewardship and streamlining to the Federal Highway Administration (FHWA). *Public Roads* is a bimonthly publication of the FHWA. The articles can be found at <http://www.tfhr.gov/pubrds/03jul/index.htm>.
 - "Reviews on the Fast Track," authored by Ms. Cassandra C. Allwell of the Planning and Policy Analysis Division, provides a step-by-step guide to practices that states employ to streamline the environmental review process. This article reflects work led by Ms. Allwell since 2000 in support of the FHWA's environmental stewardship and streamlining initiative.
 - "Nurturing an Environmental Perspective," co-authored by Ms. Rachael Barolsky of the Planning and Policy Analysis Division and Ms. Ruth Rentch of the FHWA, sheds light on best practices that honor environmental commitments throughout



These sound level contours around a typical airport are derived using the Volpe-developed Integrated Noise Model and used for impact analysis and planning.

the lifetime of a transportation project. The article summarizes a report produced by the FHWA and the Volpe Center, "Domestic Scan: Environmental Commitment Implementation — Innovative and Successful Approaches," which can be viewed at <http://environment.fhwa.dot.gov/strmlng/domScanRpt/index.htm>.

- On August 26, 2003, Mr. Greg Ayres of the Accident Prevention Division and Dr. Mary Stearns of the Operator Performance and Safety Analysis Division presented "Human Factors in Driver Assistance Systems" at a meeting organized by the Massachusetts Institute of Technology chapter of the Human Factors and Ergonomics Society. The presentation focused on human factors issues that will be investigated by the Volpe Center during a field operational test of a Roadway Departure Crash Warning System conducted by the University of Michigan Transportation Research Institute and sponsored by the National Highway Traffic Safety Administration. The Volpe evaluation will assess test participants' ability to understand the system's warnings and to respond effectively to them in a real-world driving environment.
- In August 2003, the Motor Carrier Safety Assessment Division delivered "Measuring the FMCSA's Safety Objectives from Year 2000 to 2002" (FMCSA-RI-03-018) to the Federal Motor Carrier Safety Administration (FMCSA). This report documents the progress made toward meeting FMCSA's safety objectives during 2000-2002 and describes in detail the methodology for establishing the metrics and benchmarks for measuring progress. In developing the report, the Volpe team used industry safety measures from SafeStat, a Volpe-developed, data-driven analysis system that utilizes a comprehensive variety of safety data to determine the relative safety fitness of motor carriers on a periodic basis. The analyses/metrics in this report demonstrate that FMCSA is moving in a positive direction with respect to meeting its stated safety objectives, as further evidenced by NHTSA statistics showing year-to-year reductions in truck-related highway fatalities. Mr. Donald Wright, Mr. David Madsen, and Ms. Julie Nixon of the Motor Carrier Safety Assessment Division authored the report. Mr. Walter Zak and Mr. Leon Parkin of EG&G Technical Services (a Volpe on-site contractor) and Ms. Anusha Seetharaman of Cambridge Systematics Inc. (a Volpe on-site contractor) provided technical support. The report is available on line at: <http://ai.volpe.dot.gov/CarrierResearchResults/CarrierResearchContent.stm#safeobj>.

Volpe Journal 2003: Transportation and Security

How do we increase security while preserving our economy and quality of life? The Volpe Center's security work addresses this question, in many contexts and for many clients. The 2003 issue of the *Volpe Journal*, "Transportation and Security," describes the Center's three-fold perspective on security: 1) identifying vulnerabilities in the transportation system; 2) introducing preventive measures and protecting potential targets; and 3) managing the consequences of a terrorist attack. Recent projects include: assessing critical transportation infrastructures for DOT, deploying screening systems for the Departments of State and Defense, and helping communities respond to emergencies.

The *Volpe Journal* is available online at <http://www.volpe.dot.gov/infosrc/journal/index.html>, or in hard copy from Lynn Murray at (617) 494-2224 or MurrayL@volpe.dot.gov.



Director's Notes

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Accordingly, a 1997 memorandum of understanding between the Secretary of Transportation and the Secretary of the Interior established a mutually beneficial relationship to improve transportation in and approaching NPS facilities.

In cooperation with the Federal Highway Administration, Federal Lands Highway Core Business Unit, the Volpe Center is supporting a comprehensive program for the NPS aimed at developing and implementing alternative transportation systems that may help reduce air and noise pollution in the National Parks.

This issue of *Highlights* describes many of these transportation projects, culminating in the Center's support to the development of a long-range transportation plan for the entire park system. The Volpe Center's wide range of technical capabilities – from transportation systems planning, to vehicle and fuel technologies, to environmental assessment, to traffic and transit operations management – are well suited to NPS needs.

Some of Volpe's international efforts are also featured in this issue. In these areas, the Volpe Center demonstrates its responsiveness in both partnering with other federal agencies and sharing Volpe's experience across national boundaries.

Most importantly, this issue also features an update on the Volpe Center's efforts to strengthen and improve its business practices in step with the President's Management Agenda and the Department of Transportation's strategic goal of achieving organizational excellence. The Center welcomes the opportunity to enhance its performance and maximize the value of its work through improved management practices and processes.

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