

TRANSPORTATION

Building Jobs through
Transportation **FOCUS** Grant Year 9
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News and Information from the Rahall Transportation Institute



Contents:

News...p. 1, 3-4, 8

Research...p. 1

Education...

p. 6

Technology

Transfer...

p. 2, 5

K-12 Outreach...

p. 6-7, 9

Upcoming

Events...p. 10

Partner Schools:



RTI Representatives Participate in Norman Y. Mineta National Transportation Policy Summit

by Errin Jewell

On Oct. 6, 2007, representatives from the Rahall Transportation Institute participated in the *Norman Y. Mineta National Transportation Policy Summit: The Crisis in Transit Workforce Development*, in Charlotte, N.C.

U.S. Secretary of Transportation Norman Mineta (Ret.)

hosted this one-day session for transportation policymakers and senior managers to explore the transit workforce development crisis. Following a morning expert panel discussion, Mineta, U.S. Rep. Nick J. Rahall, II and RTI Director Robert Plymale were keynote speakers at a working luncheon. During this time, they engaged members of a morning panel in an open, roundtable discussion with the audience.



CONTINUED PAGE3:MINETA

2010 National Rural Intelligent Transportation Systems Conference to be Hosted by RTI



by Errin Jewell

The Nick J. Rahall, II Appalachian Transportation Institute (RTI) was recently selected to host the National Rural Intelligent Transportation Systems Conference in Huntington, W.Va., in August 2010. The conference's theme will focus on incorporating the "3Ts" - Technology, Transportation and Tourism with Intelligent Transportation Systems (ITS) in rural settings that provide a unique set of challenges and objectives not found in urbanized areas.

Dr. Andrew Nichols, RTI Research Associate, said, "The purpose of the conference is to provide an opportunity for transportation professionals to share research, education and technology transfer ideas on issues that are pertinent to our areas. In addition

CONTINUED PAGE 3: RURAL ITS



Local Educators and Industry Leaders Converge at RTI for Student Educational and Economic Development Success



*"We know that in the new economy, our schools must produce workers who can compete anywhere in the world."
First Lady Gayle Manchin,
21st Century Jobs Cabinet
Co-Chair*

On Oct. 3, 2007, West Virginia's First Lady Gayle Manchin, who is also the 21st Century Jobs Cabinet Co-Chair, brought together local education leaders and parents with business and industry owners at RTI headquarters to discuss opportunities to strengthen business and education relationships across West Virginia through a new program.

The Student Educational and Economic Development Success (SEEDS) program is a public/private partnership between the State of West Virginia and The Education Alliance. SEEDS uses "well-established business practices, such as time management, goal setting and measurement of performance, to help transform struggling schools." Meetings throughout West Virginia have been hosted by the 21st Century Jobs Cabinet and The Education Alliance.

At the Huntington meeting, high school principals and college admissions representatives to technical education instructors and manufacturers, attendees discussed strengths and shortcomings of current high school curricula in preparing students for higher education or the workplace. This meeting provided educators and employers with a facility to communicate about effective and realistic ways to equip students with skills that will help them gain and retain employment after finishing their education.

"We know that in the new economy, our schools must produce workers who can compete anywhere in the world," Manchin said.

The SEEDS program partners seasoned business mentors and master educators with school principals who apply for the program. Schools are selected based on academic and geographic data; the principal's vision for students, faculty and the larger school community; how the SEEDS program will help the school achieve 21st century skills for its students; and how the program will help the school and principal. Selected principals develop a plan and budget with the mentor and coach to implement innovative projects designed to improve the academic and social achievement of students in his or her school. Based on the plan, schools selected for the SEEDS program may receive special grant funds of \$25,000 per year from state and private contributions.

West Virginia Gov. Joe Manchin introduced the three-year SEEDS program Jan. 10, 2007, as part of his State of the State address. "We must continue to work together as educators, business leaders, parents and public servants to ensure that every West Virginia teacher and student has the knowledge and skills needed for this new economic world in which we now live," he said. "SEEDS will be used as a voluntary tool to help those schools that most need intervention and whose principals are open to change and are enthusiastic about the program's infusion of new thinking and strategies."

The Education Alliance is West Virginia's statewide public education fund. It is a non-profit organization with the mission to create positive, systemic change in public education.





FROM PAGE 1: RITS Conference

to participating in break-out sessions and listening to presentations from experts in the field, we will provide networking opportunities for rural transportation professionals to share information and ideas that may solve the transportation needs of our respective regions.”

RTI Director Bob Plymale said that because RTI is based in the only state located entirely within the Appalachian region, “We understand the challenges and needs of expanding and maintaining intelligent transportation systems in rural areas.”

RTI will work closely with the West Virginia Department of Transportation, the West Virginia ITS America Chapter and Meetings Northwest to make the conference a success.

Bruce Kenney, ITS Project Manager with the WVDOT, said, “The conference will be a great opportunity to showcase ITS projects that are underway in the state. By 2010, we will have a traffic management center in Charleston monitoring road and traffic conditions of specific corridors around the state. With our management center and future statewide ITS applications, our ITS initiative literally adds a third dimension to our transportation infrastructure, which also allows the WVDOT to partner with various state and regional stakeholders in promoting transportation safety and mobility.”

Tom Smith of the Federal Highway Administration, who has been instrumental in developing ITS projects at the Rahall Transportation Institute, said “We plan to use the conference as an opportunity to share and explore education, safety, security and efficiency issues that are specific to rural intelligent transportation systems.

“We also want to increase the visibility of ITS in this region by including smaller agencies and constituents that could potentially benefit from these ITS projects. By the time of this conference, we believe that West Virginia will be able to showcase some of the best success stories in the nation in rural ITS. Those successes will be due in large part to the great partnership that exists in this area between WVDOT, RTI and FHWA.”

Approximately 300 transportation professionals from across the United States are expected to attend the five day conference. These professionals will represent other state transportation agencies, academic institutions, consultants and equipment vendors.

Steve Albert, director of the Western Transportation Institute in Bozeman, Mont., said, “Bringing the NRITS conference back to the east coast and the unique transportation, economic development and partnership provide a great opportunity for RTI and West Virginia to showcase how they are addressing rural transportation challenges. ITS America and the Rural Stakeholder Group look forward to working together in partnership to bringing national rural ITS experience to WV, and vice versa.”

For more than 15 years, ITS America has been the foremost advocate for the development and deployment of intelligent transportation systems in the U.S. ITS America members come from private corporations, public agencies, academic institutions and research centers. ITSA America Members share a common goal: to improve the safety, security and efficiency of the nation’s transportation system for the traveling public through the deployment of ITS.

More information about ITS America is available at www.itsa.org. More information about the 2008 RITS Conference in Anchorage, Alaska, is available at www.nritsconference.org.





From left to right: Juan Barrios, Kent Sowards, LeAndria Reed, Sang Yoo, Richard Begley, Nick J. Rahall, Curtis Jones, Robert Plymale. Below: RTI Workforce Development Director Diana Long speaks during the summit.

FROM PAGE 1: MINETA

The summit was presented to the public at no fee by the Mineta Transportation Institute (MTI) and the Rahall Transportation Institute, and was co-sponsored by AASHTO, Amtrak, American Public Transportation Association and others. The summit preceded the 2007 Annual American Public Transportation Association Meeting, which took place Oct. 7-10, 2007.



David L. Turney, chair MTI Board of Trustees; presided over the summit. William Millar, APTA president and Rod Diridon, national Council of University Transportation Centers president and MTI Executive Director, welcomed guests. The morning expert panel included: Dr. Diana Long, Workforce Development Director, Rahall Transportation Institute; Ron Hynes, US DOT Federal Transit Administration Deputy Associate Administrator for Research, Demonstration and Innovation; Janet Oakley, AASHTO Director of Policy; Stephanie Pinson, Gilbert Tweed Associates, Inc. President/CEO and APTA Executive Board and Human Resources Committee Member; and Dr. Asha Weinstein, PI "Paving the Way, Workforce Development Crisis in Transportation," MTI Research Associate.

Dr. John Collura, national Council of University Transportation Centers Workforce Development Task Force Chair, University Transportation Center Director, University of Massachusetts, served as panel moderator. RTI representatives to the summit included: Plymale, Long, Dr. Richard Begley and Research Associates Juan Barrios, Curtis Jones, LeAndria Reed and Kent Sowards.





30 Transportation Professionals Complete FHWA-NHI Course 130053

From Oct. 16-18, 2007, thirty transportation professionals completed FHWA-NHI Course 130053: Bridge Inspection Refresher Training in Charleston, W.Va. Participants were federal, state and local agencies and private-sector personnel employed in inspecting bridges or managing bridge inspection programs. Participants must have completed prior comprehensive bridge inspection training or have met the criteria for a bridge inspector under the State's procedures or requirements.

The major goals of this course were to refresh the skills of practicing bridge inspectors in fundamental visual inspection techniques; review the background knowledge necessary to understand how bridges function; communicate issues of national significance relative to the nation's bridge infrastructure; re-establish proper rating practices; and review the professional obligations of bridge inspectors.

This course is based on the "Bridge Inspector's Reference Manual," 2002 with reference to the "AASHTO Manual for the Condition Evaluation of Bridges," 2000, with interims, the "FHWA Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges," 1995, including 2003/2004 errata sheet, and the "AASHTO Guide for CoRe (Commonly Recognized) Structural Elements," 1998, with interims.

Core course topics included tri-axial constraints, inspector qualifications and duties, record keeping and documentation, structure inventory and appraisal overview, national bridge inventory standard component ratings, element level ratings, safety, component case studies for decks, superstructures, substructures, channels and a virtual bridge inspection classroom exercise.

Upon completion of the course, participants were able to: identify and document inspection observations using standard methods, evaluate defects based on the current AASHTO Manual for Condition Evaluation of Bridges, code NBI bridge components using the FHWA Recording and Coding Guide and code element level bridge data in accordance with the AASHTO Guide for CoRe (Commonly Recognized) structural elements. Those who completed the course earned 1.8 Continuing Education Units.

First Responders Shown GIS Applications That Assist in Emergencies

On Sept. 25, 2007, Research Associate Sang Yoo informed emergency professionals about how GIS applications can be used to assist in emergency situations during the Annual Local Emergency Planning Committee/State Emergency Response Commission 13th Annual Conference in Charleston, W.Va. He explained how emergency responders may use web-based intelligent geographic information system applications to access, produce and print maps that help identify geographic features, structures, roads and other objects during emergency situations. Yoo demonstrated how TEDIS, the online Transportation and Economic Development Information System created by RTI, may be used to create real time, accurate and accessible maps to assist them in emergency work.

ACCUWeather Commercial Weather Services representative Louis Seidel and National Maritime Enhancement Director Dana Robertson also presented "New Technology Applications for Emergency Management and Response," which informed attendees about the partnership between Operation Respond and AccuWeather, Inc. They stressed the critical need for emergency responders, managers and dispatch centers to have ready reference to lifesaving commercial hazmat information as well as server weather warning and predictions in order to help ensure life, safety and understanding of environmental dangers and hazards for emergency personnel.

The conference took place from Sept. 25-26, 2007, and was made possible by the West Virginia Division of Homeland Security and Emergency Management. In addition to the presentations, RTI hosted an informational table with ACCUWeather and Operation Respond. Information about RTI, its services with Operation Respond, safety training courses and other information was made available to conference attendees.

Robertson, Yoo, Errin Jewell, LeAndria Reed and Barbara Roberts represented RTI during the event.



Staff and Student Spotlight

Andrew Gooding



Birthplace: Ithaca, N.Y.
Title: Research and Technical Writer
Education: Bates College (Undergraduate Degree), University of North Carolina at Chapel Hill (Masters Degree), University of Illinois at

Urbana-Champaign (pursing a Ph.D.)

Projects w/ RTI: Research and Technical Writing

Kristina Hatfield



Birthplace: Gilbert, W.Va.
Title: Undergraduate Assistant
Education: Pursing a Bachelor of Business Administration in Accounting at Marshall University

Duties at RTI: Includes secretarial duties such as answering telephones, greeting visitors, picking up mail and general office help.

Robo Geek Squad Places Third in WV FIRST LEGO League Tournament

Congratulations to the 18 teams that participated in the 2007 FIRST LEGO LEAGUE (FLL) season, especially the 3rd place winners Robo Geek Squad, who was coached by Linda Hamilton, RTI Coordinator K-12 Outreach Intelligent Transportation Systems Workshops Using LEGO Robotics and Marshall University math instructor and Matt Bailey, RTI undergraduate assistant.

The competitive season culminated Dec. 15, 2007, with the West Virginia State Tournament at Wheeling Jesuit College. Nearly 400 students competed by using LEGO Robots to complete energy-related missions, such as moving a solar panel to the roof of a building, erecting power lines and harnessing wind energy. Teams had two and one half minutes to complete their challenges, and also gave presentations explaining their energy sources, environmental impact and usefulness of the energy sources. Approximately eight of the teams competing in the 2007 tournament were Cabell County teams supported by RTI: the RoboPirates, Irish Engineers, RoboGeek Squad, Thundering Bots, Techno-Tigers, Milton Alchemists and Southside Cardinals.

FLL teams began their season in Sept. 2007 and met regularly during the fall to perfect their missions. Ten teams also competed locally at a public event at Marshall University, December 8, 2007. The final FLL events for the 2007 season took place January 19 and February 23, 2008, at two "FIRST LEGO LEAGUE TEAM TIME with a Friend" days. Students were invited to bring friends who are interested in competing in the 2008 FLL challenges to get a head start in learning programming and building for challenges. Their first activity was to construct and program a mechanical arm to toss a ball a measured length into a box.





WV Operation Lifesaver - NR Train, Bridge Day, Re-Training, Board Meeting, Halloween, YMCA

During the final quarter of 2007, West Virginia Operation Lifesaver presenters had many opportunities to present rail grade-crossing safety information to train enthusiasts from pre-schoolers to senior citizens.

For two weekends in each October, New River Train Excursions depart from Huntington, pick up passengers in St. Albans and continue across the state to Hinton for Rail Days Celebrations. In 2007, WVOL volunteers conducted grade-crossing safety presentations on the excursions, which took place Oct. 20, 21, 27 and 28. Presenters from RTI included John Ball and Errin Jewell.

On Oct. 20, LeAndria Reed and other WVOL volunteers hosted an informational booth and handed out safety information to visitors as part of Bridge Day activities in Fayetteville. Bridge Day is West Virginia's largest one-day festival and thousands of visitors attend each year.

At the West Virginia Pumpkin Festival, which took place Oct. 4-7, 2007, visitors were encouraged to operate a computerized train simulator. This hands-on activity put visitors in the conductor's seat and demonstrated how to speed up, slow down, maintain speed and manipulate signals. RTI representatives Kim Baker, Ball, Jewell, Kate Jordan and Reed all volunteered time at the festival, which takes place annually at the West Virginia Pumpkin Park in Milton.

On Oct. 31, Reed and Jewell hosted an OL booth at the Kenova Superdome. This community-based Halloween activity allows hundreds of local students and parents to safely trick-or-treat and receive information from safety organizations such as WVOL, RAZE West Virginia and other groups.

On Nov. 7, more than 30 pre-school students at the Cross Lanes YMCA learned about the dangers of trespassing on railroad tracks. Jordan and Jewell presented information and showed the "Sly Fox and Birdie" safety video to the students before fielding questions from them.

Approximately 20 presenters met in Barboursville December 12 to participate in WVOL "retraining," in which they learning new reporting methods and were given a refresher course in how to best present railroad safety information to different types of audiences. The final WVOL activities for 2007 was the annual board meeting, which took place December 13 at RTI headquarters in Huntington. During this meeting, presenters met to discuss the number of presentations conducted during the year and created strategies to cover more geographic and demographic areas throughout West Virginia in 2008.



West Virginians for Better Transportation Meet in Huntington

On Sept. 19, 2007, approximately 30 transportation professionals, concerned citizens, local and state government leaders and economic developers met at RTI headquarters for a West Virginians for Better Transportation (WVBT) regional meeting.

RTI Director Bob Plymale welcomed guests, who represented Cabell, Wayne, Putnam and Mason Counties, and asked them to share their ideas on how to improve West Virginia's transportation needs.

"RTI is happy to be a part of a team to improve the transportation infrastructure in our state. We've been at the forefront of this issue since we were created in 1998," he said.

"In the nearly 10 years since then, we've devoted our efforts to improving transportation issues in the Appalachian region through research projects, technology transfer activities and educational opportunities from elementary schools to master's and Ph.D. degree candidates."

Local speakers and representatives then addressed West Virginia's transportation concerns.

Joe Deneault, Chairman of WVBT, said, "The meetings are designed to educate local and community leaders about the state's transportation system, its current and projected challenges and the financial plight facing the state Road Fund (now and future). There are more needs facing our state's transportation system than can be met with existing and projected resources. "Local communities all across the state are struggling with the impacts of this situation. Moreover, many communities are going to face greater problems and issues as limited state Road Fund dollars are stretched even further."

The meeting was part of a WVBT-spearheaded, statewide education campaign designed to generate public awareness of the state transportation system and foster debate about the ability to meet current and future needs. This campaign is called "Keep West Virginia Moving." WVBT's goal is to educate people about the challenges facing West Virginia's transportation system. The Huntington meeting was one of seven regional meetings that took place throughout the state in late 2007.

West Virginians for Better Transportation is a statewide coalition of businesses, trade associations, chambers of commerce, convention & visitors' bureaus, community groups, local leaders, educators and many others. These groups have joined together to express concerns about West Virginia's transportation crisis and to call on state leaders to develop long-term solutions.





Students Learn about Careers in Transportation, Steps to Achieve Them, During Career Day Activities with LEGO Robotics

“Building Jobs through Transportation” was the primary theme during career days at two Southern West Virginia Schools in November and December 2007. Linda Hamilton, Marshall University mathematics instructor and RTI K-12 LEGO Outreach Coordinator, informed students about transportation career opportunities by using LEGO robotics during these events.

On November 20, 2007, middle school students journeyed to the Cam Henderson Center at Marshall University to “learn how math, science, engineering and technology can help in getting jobs in transportation,” Hamilton said.

Students completed hands on robotics experiments with FIRST LEGO League activities including a “Power Puzzle Challenge” which asked students to explore how personal energy choices to heat homes, fuel cars and power computers impact the environment, economy and life around the globe. At the end of the day, students were guests at a Marshall University women’s basketball game.



On December 4, 2007, approximately 200 students from Culloden Elementary in Cabell County, W.Va., participated in Career Day activities.

Culloden students completed LEGO Robotics exercise that involved using intelligent transportation systems to program and operate vehicles and city components. Under the guidance of Hamilton, teachers and volunteers helped the students teleoperate AppaLEGO City, which is located at RTI Headquarters in Huntington, via the internet. In addition, they constructed, programmed and operated a robot at Culloden Elementary. Team work, problem solving, science, technology, engineering and math were emphasized during the robot construction.

They also were informed of a variety of transportation-related careers, which range from road construction to civil engineering to GIS planning. The educational steps that are required to achieve these careers, from choosing high school courses to completing technical school or college level training, were also underlined during Culloden Career Day.





Transportation Focus is a quarterly newsletter published by the Nick J. Rahall, II Appalachian Transportation Institute.

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Contributors: Barbara Roberts, Diana Long, Linda Hamilton, Raymond Busbee

Read **Transportation Focus** online at www.njrati.org.

Upcoming Events

Conferences

Aug. 6-7, 2008

9th Annual Technical Forum, Geohazards in the Appalachian Region, Charleston, W.Va.

Technology Transfer Activities

May 2008

National Maritime Days Celebration, Harris Riverfront Park, Huntington, W.Va.

K-12 Outreach

March 8, 15, 22, 2008

Saturday LEGO Robotics Camps, Marshall University Continuing Education, Huntington, W.Va.

April 25-26, 2008

West Point Bridge Design Contest, Charleston, W.Va.

June 15-20, 2008

Exploring Engineering Academy of Excellence, Marshall University, Huntington, W.Va.

June 29-July 4, 2008

West Virginia Operation Lifesaver Rail Camp, Petersburg, W.Va.

Register online at www.njrati.org or call Sandra Jones at (304) 696-7098.

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