



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

Managing Editor, Design and Layout: Errin Jewell

Writers and Copy Editors: Pam Hamilton, Errin Jewell, Kate Jordan

Contributors: Barbara Roberts, Diana Long, John Perry, Robin Swiney

Read *Transportation Focus* online at www.marshall.edu/ati/news/newsletter.htmlx.

Upcoming Events

Conferences

Aug. 6-7, 2008 Technical Forum, Geohazards in the Appalachian Region, Charleston, W.Va.

Transportation Seminar Series

Sept. 19, 2007 West Virginians for Better Transportation, Regional Transportation Education Sessions, RTI Headquarters, Huntington, W.Va.

Technology Transfer Activities

FALL 2007 GPS Technology Training with the WVDOT
Aug. 28-31, 2007 HEC RAS River Analysis System. Marshall University Graduate College, South Charleston, W. Va.

Sept. 20, 2007 Truck Driver Awareness Training, Fairmont, W. Va.

K-12 Outreach

Oct. 20-21, 27-28, 2007 West Virginia Operation Lifesaver Presentations aboard the New River Excursion Train, Huntington to Hinton, W. Va.

Register online at www.marshall.edu/rti or call Sandra Jones at (304) 696-7098.

Upcoming Events



Nick J. Rahall, II
Appalachian Transportation Institute
P.O. Box 5425
Huntington, WV 25703-0425
1-800-284-9853
www.marshall.edu/rti

Non-Profit Org.
Bulk Rate
U.S. POSTAGE
PAID
Permit No. 206
Huntington, WV

Return Service Requested

visit us on the web at www.marshall.edu/rti

Summer 2007



U.S. Rep. Nick J. Rahall, II

\$3 Million USDOT Grant Secured for RTI Research, Job Creation

On Friday, August 10, 2007, U.S. Rep. Nick J. Rahall, II announced that Rahall Transportation Institute (RTI) has received a \$3.01 million grant to continue its transportation research efforts and to build jobs through transportation.

The grant comes from the U.S. Department of Transportation's Research and Innovative Technology Administration.

"This funding will allow RTI to continue bringing jobs and investment to southern West Virginia and throughout the Appalachian region," said Rahall. "That's why I have worked for nearly a decade to create and support this institute. The importance of RTI is apparent

when you consider that according to the Department of Transportation, for every \$1 billion of investment in our infrastructure, 47,500 jobs are created."



1987 2009

Dr. Richard Begley, RTI's associate director, said the grant will potentially create more jobs in Huntington and southern West Virginia by helping create a base for large-scale commercial companies that focus on transportation safety.

"We have the opportunity to start up high tech industries here," Begley said. "We are trying to build jobs for West Virginians here."

CONTINUED PAGE 5: GRANT

Contents:
News...p. 1, 4, 5
Plymale's Perspective...p. 2
Education...p. 6
Technology Transfer...p. 2, 3, 7
K-12 Outreach...p. 7-11
Upcoming Events...p. 12

Partner Schools:



First 2 Recipients of Rail-SOURCE Awards Honored at RTI

On May 24, 2007, the first two recipients of the Railroad Safety and Operations Research Center of Excellence (Rail-SOURCE) Awards, Mr. John West and Mr. Bernie Sanders, were honored at RTI headquarters in Huntington, W.Va.

RTI Director Bob Plymale, who opened the event, said one of the purposes of



the awards was to "highlight a very successful public private partnership in engineering research between RTI and the CSX Corporation.

CONTINUED PAGE 5: Rail-SOURCE

Summer 2007

visit us on the web at www.marshall.edu/rti





Plymale's Perspective The Director's Report



Intermodal Transportation Brings Benefits to Our Region

At the Rahall Transportation Institute, "intermodal transportation" is not just an industry buzzword or latest trend. Instead, intermodal transportation means the creation of new jobs and developing new markets for goods created in our region. It also means these goods can be moved across our nation at a pace that's not only faster, but safer and more secure.

To the hard working people of the Appalachian region, well-paying jobs are precious, and the increased use of intermodal transportation means current infrastructure must be modified. The local workforce welcomes the opportunity to assist in expanding single-stack railroad tunnels, widening narrow highways and enlarging ports. Jobs relating to the maintenance, logistics and security of new transportation infrastructure are also welcome to our region, as well as those involving the increased buying and selling of goods that will come in and out of the area.

Whether goods enter and exit our region through truck, train, boat or plane, a top priority is ensuring that cargo and infrastructure remain safe and secure. The use of intermodal transportation usually requires goods to remain in one container from the beginning to the end of the journey. By decreasing the number of times goods are transferred from container to container and reducing the number of individuals who have access to them, the the opportunity to tamper with goods also diminishes. In addition, loading times are shortened, which means goods get to and from their destinations at a much quicker pace.

Finally, intermodal transportation amplifies the amount of goods that can travel by rail, boat and plane, which can drastically cut down the number of heavy vehicles on our highways. This can lead to shorter driving times, fewer accidents and less damage to roads and bridges.

Sincerely,

Robert H. Plymale

119 Professionals Attend Geohazards Technical Forum



by Kate Jordan

Geohazards in Transportation in the Appalachian Region Technical Forum took place in Asheville, N.C., at the Haywood Park Hotel, August 1-2, 2007. There were 119 people attending from states including: Kentucky, West Virginia, Ohio, North Carolina, Virginia, Georgia, Pennsylvania, Colorado, South Carolina, New York, Wisconsin, Tennessee and Utah.

Barbara Roberts, RTI Program Coordinator, Sr., was one of the coordinators for the conference. Roberts said attendee's comments about the conference were positive, and they stated content was on target with their needs.

Approximately eight sessions were presented during the two-day forum. Some of this year's topics were: Geotechnical Case Studies of North Carolina; Landslides: Present & Future; Cost Benefits of Geoscience Information; Economic Impact of Geological Hazards; Geological Mapping: Targeting Geological Hazards in Transportation; Innovations in Real-Time Monitoring for Geohazards; Karst and Mine Subsidence Hazards in Transportation; Rock Slope Problems and Stabilization.

The next forum will take place Aug. 6-7, 2008, in Charleston, W. Va. For more information contact Barbara Roberts at robertsb@marshall.edu or Dr. Tony Szwilski at szwilski@marshall.edu.



Students Explore Careers in Transportation, Technology during Summer LEGO Activities

This summer, Linda Hamilton, Coordinator K-12 Intelligent Transportation Systems Workshops Using LEGO Robotics, helped students to explore careers in transportation through LEGO camps, workshops and special events.

From June 18-22, 65 4-H DUPLO Campers built "everything from abstract designs to zoos" using DUPLO blocks. Four groups of campers used pictorial charts to assemble vehicles and roads that solved problems such as transporting goods across water, mountains, cities and farms. Train safety was emphasized when students built eight configurations of a track and learned to switch parts, monitor intersections, move gates and signal traffic while two model engines ran.

Simple machine kits, which were purchased by RTI, were used June 25-29, during the 4-H LEGO Technology Camp. Participants created vehicles powered by balloons, sails, rockets and rubber bands. They discussed how each energy source propelled vehicles and compared direction, speed, distance and stability.

"Make It Go!" was the theme of a camp that took place June 25-29, at Marshall University (MU). Teams built intelligent robotic vehicles by following pictorial instructions. They were required to use problem-solving skills to modify vehicles to accommodate custom requirements. Emphasis was placed on making sturdy structures, incorporating gears and pulleys, controlling speed and direction and integrating RCX microcomputers.

Parents joined children in constructing and programming intelligent vehicles using LEGO Cities and Transportation sets, which were provided by RTI, during Robotics Camp, which took place July 9-13 at MU's Division of Continuing Education.



On July 14, "Kids Day" in Morgantown featured a LEGO Transportation build, during which younger students constructed vehicles, streets and buildings using DUPLO blocks provided by RTI.

"LEGO Fun" Days took place at Cabell and Lincoln County libraries, when Hamilton led students as they used LEGO elements to build city neighborhoods, places to work and vehicles. Events took place at Salt Rock and Milton, Tues., July 17; at the Cabell County Main Library and Guyandotte, Wed., July 18; and Cox Landing and West Huntington, Thurs. July 19.

"Big kids and little kids explored careers as they modeled building an intelligent city, which included places to work and live as well as the transportation infrastructure," said Hamilton.

From July 30-Aug. 3, Hamilton hosted two camps at MU. LEGO DUPLO CAMP took place in the morning, when 15 K-3rd graders "set up a world of DUPLO with a playground, stores, parks, zoos, homes and workplaces, complete with transportation to get to them all. In the afternoon, LEGO Technology Building Camps consisted of 12 3rd-8th graders, who "built LEGO gears, pulleys, levers, wheels and axles into machines to solve 100 challenges," she said.

Twelve students in grade 4 and up participated in "City Sights - Program LEGO Robotics" camp Aug. 6-10. They built and programmed environmentally-friendly robots to perform tasks of the FIRST LEGO League City Sights Challenges. Students participated in small-team design projects, while fostering an understanding of science and physical principles for robotic building and computer programming in RoboLab. Projects were structured to allow students to work in an open-ended, investigative environment, while working in a team.

The final summer LEGO event was completed Aug. 18 during the "Block Party" in the Highlawn neighborhood of Huntington. The Barboursville Middle School FIRST LEGO League coach and team members got some early practice for the fall competition by programming and demonstrating a robot.

Due to space constraints, most LEGO Robotics activities require advance registration and some require a small fee. For more information contact Hamilton at (304) 696-7166.





Exploring Engineering: Academy of Excellence Camp Educates Students during its 7th Year

By Kate Jordan

The 2007 Exploring Engineering: Academy of Excellence camp took place on Marshall University's campus from June 17-22. Students arrived Sunday, June 17, to check into the dorms, take campus tours, hear a welcome message from Stuart Harshbarger, from Johns Hopkins University, and take time to get to know one another.

Monday morning started bright and early at 8 a.m. with an introduction to CAD/CAM design, which aided

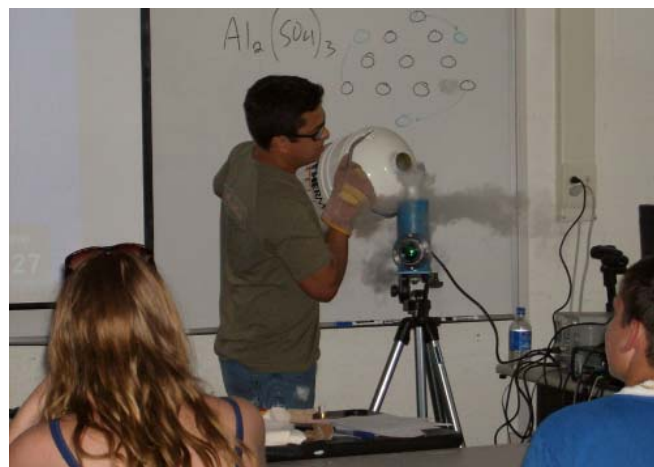


Above: Teams constructed trebuchets from PVC pipe, duct tape and other household supplies.

students in the construction of CO₂ racers, a project which would be ongoing through the entire week. Students were also introduced to civil and environmental engineering, along with highlights on surveying, GPS and Environmental Sampling.

On Tuesday, students worked on a trebuchet design, a project that was a favorite to student Adam Martin, an upcoming junior at Elkins High School. "I like building stuff that is hands-on," stated Martin, who is interested in a career in mechanical engineering.

The trebuchet design resulted in a competition Tuesday, and throughout the rest of the week students were involved in other activities. LEGO Robotics, and design and construction of a robot took place Wednesday, while Thursday consisted of field trips to the Toyota Plant in Buffalo, W.Va., tour of the Memorial Tunnel, and a trip to Columbia Gas followed by a GIS Presentation and discussion by Alejandro Sanchez and Pete Daily of the Rahall Transportation Institute. The presentation focused on how infrared cameras are used with GIS technology along with how GIS helps aid transportation systems. Finally, after lectures and presentations, students got to hang up the text-



Above: RTI's Alejandro Sanchez informs students about how GIS technology works before he describes career opportunities that use GIS.

book discussions when they went to a picnic/pool party at Water Ways, in Boone Co. W.Va.

Friday wrapped up with the much anticipated CO₂ races, which student Jessica Lundy, an upcoming junior at Fairland High School in Proctorville, OH, said she had been looking forward to all week. "I can't wait to see how it goes," said Lundy, "it's been my favorite project." Jessica found out about EEAE camp through Engineering Day which took place at Marshall University, and is interested in a career in civil engineering. Before going home, students, parents and sponsors were invited to an awards luncheon where students received certificates and were recognized for their hard work. Sponsors were also recognized for making EEAE camp possible.



Above: CO₂ Racers were designed, created and tested by students.

One individual who has helped make EEAE camp possible is David Meadows, who has been with the camp for 7 years. He is a civil engineer and his camp duties include working with students on surveying and the trebuchet project. "We make improvements every year," stated Meadows. "We try to add new stuff to make the camp challenging and individual engineers who commit time and money to promote engineering as a career to high school students. For more information on Exploring Engineering: Academy of Excellence please visit www.marshall.edu/eeae.



Rahall and Plymale Present 1st GPS Reporting, Responding Units to West Virginia State Police



On Friday, June 1, 2007, Congressman Nick J. Rahall, II and RTI Director Bob Plymale presented the first of 600 new Geographic Positioning System (GPS) units to the West Virginia State Police (WVSP) at the Beckley State Police Headquarters.

The GPS technology was made available through a \$493,000 COPS (Community Oriented Policing Services) grant from the United States Department of Justice, which was secured by Rahall. The new technology consists of mobile, paperless, GPS-based, data-reporting and responding, communication equipment. It is to be installed in police vehicles to assist in computer-aided dispatch and reporting immediately from the field to WVSP headquarters and will be used throughout the state. RTI facilitated training on the new technology.

"Bringing GPS technology to our law enforcement personnel will provide them with some of the most modern crime-fighting equipment available," Rahall said. "Our police have the difficult job of protecting our communities and fighting crime. Providing state-of-the-art technologies like GPS will give them a leg up on catching criminals and responding quickly to emergencies that may arise.

During the presentation, RTI Director Bob Plymale welcomed guests and introduced Col. David L. Lemon, Superintendent of the West Virginia State Police, who demonstrated the new technology and explained its benefits. More than \$46 million in COPS grants has been awarded to law enforcement agencies in West Virginia since the program began in the mid-1990s. More than \$2 million of the funding has been used to add 20 school resources officers and more than \$4 million has been used for crime-fighting technologies.

18 WVDOT Professionals Complete Basic GPS Training Course

by Diana Long,
Workforce Coordinator



Left: Alejandro Sanchez explains to a WVDOT employee how to collect field data points using portable GPS units.

Geographic Positioning System (GPS) units are everywhere, in our fishing boats, in our ATV's and in our cars. Viewing the technology is great. To be a user of the technology requires deeper skill sets. Grasping the basic underlying knowledge and skills of latitude, longitude, data collection and correction is the first level of learning. Being able to apply the skills in the field is the second level necessary before GPS will affect the way transportation workers perform their jobs.

RTI delivered a basic GPS course for 18 WVDOT professionals, May 10-11, 2007 at Marshall University Graduate College in South Charleston. Sang Yoo was the lead instructor with assistance from Research Associates Pete Daily, Chandra Inglis-Smith and Alejandro Sanchez.

Students initially learned to collect field data points by hand and then progressed to collecting data using sophisticated GPS receivers. Students were given related skills and knowledge of the elements of a Cartesian coordinate system: how to convert the data into decimals, how to correct GPS data using differential correction degree, how to design a data dictionary and how to import data into ArcGIS to prepare maps.

Participant's evaluations reflected large gains in new learning and a belief held by more than 70% of the class that the skills will change the way they perform their jobs. An applied version of the GPS training is scheduled for WVDOT utility workers in the Fall of 2007.

RTI is interested in customizing this GPS training for interested clients. For more information contact Diana Long, RTI Workforce Coordinator, 304.542.3303 or longd@njrati.edu.





Transportation Update

Guest Column by
 U.S. Representative Nick J. Rahall, II

At the close of the 20th century - thanks to American breakthroughs in transportation and the rise of automobiles, airplanes, and 44,000 miles of super highways - the world had become a healthier, safer, and more productive place and the U.S. was positioned as world leader in trade and industry.

As a Member of Congress, I put a great deal of time and energy into developing our Nation's transportation infrastructure to make sure that we retain our status as world leader and that our Nation's history of achievement continues for centuries to come.

It is with great pride that I recently accepted the Vice Chairmanship of the House Committee on Transportation and Infrastructure. I am honored to help steer such an important and influential committee, and look forward to continuing the effort to drive our country toward higher levels of greatness.

Because I have more than 30 years of experience in transportation policy under my belt, it is no coincidence that transportation is the first T of my "three T's" (Transportation, Technology, and Tourism) agenda. I firmly believe that a more secure and prosperous America begins with transportation, here at home, through proper investment in community transportation and infrastructure, and economic initiatives that will improve the overall strength and stability of Southern West Virginia.

The U.S. Department of Transportation tells us that for every \$1 billion of investment in our infrastructure, 47,500 jobs will be created. As Vice Chairman of the Transportation Committee, I strive to provide southern West Virginians, and all Americans, with safe and prosperous communities where they can find cutting-edge jobs, earn a livable wage, and enjoy all that our beautiful country has to offer.

Earlier this summer, I helped the U.S. House of Representatives pass a transportation funding bill that is a testament to how, even with tight fiscal constraints and pay-as-you-go budgetary rules, the 110th Congress is striving to invest in needed infrastructure. The bill provides \$40.2 billion to improve and maintain our Nation's aging highways and nearly \$600 million for highway safety programs. I am particularly proud of the bill's increased funding for the modernization, safety, and efficiency of our Nation's airports. The bill pays special attention to airports in smaller, rural communities - the type that serve as economic engines here in southern West Virginia. It provides billions to ease congestion in over-crowded airports like the Tri-State Airport in Huntington, as our Nation's airport infrastructure prepares to handle the dramatic increase in passengers over the next several years. It also increases funding to the Essential Air Service Program, which helps support rural airports in Raleigh, Mercer, and Greenbrier counties.

Over the years, I have secured hundreds of millions of dollars of federal investment for new construction and improvements to southern West Virginia's transportation infrastructure. With every dollar, I ask myself: How can we turn this federal investment into jobs and a vibrant economy for hard-working West Virginians?

At Marshall University, the Rahall Transportation Institute (RTI) is doing just that. In 1998, I established RTI to enhance the transportation and job creation in southern West Virginia and throughout the Appalachian region. And nearly a decade later, I am proud to say that the RTI's hard work and achievements continue to pay off. Last month I proudly announced that they were awarded another \$3.01 million from the U.S. Department of Transportation for advanced transportation research. This funding will allow RTI to continue to lure high-tech jobs and transportation investment to southern West Virginia and ensure the students at Marshall proudly uphold the institute's motto, 'building jobs through transportation,' for years to come.

As you can see, creating jobs through transportation is good for southern West Virginia. It is as simple as that. For more information contact: Lara Cottingham (202) 225-3452.



2007 WVOL Rail Camp Takes Place in Petersburg



by Kate Jordan

For railroad enthusiasts 7-17 years old, West Virginia Operation Lifesaver hosted its 2007 summer rail camp June 24-29, in Petersburg, W.Va. Twenty-eight students attended this year's rail camp, some coming from as far as Minnesota. Students spent the week learning about careers in the rail industry and railroad safety, as well as receiving hands-on experience with locomotives.

Upon their Sunday arrival, students were given a pre-test to assess their knowledge of railroad safety and the test was given upon departure to measure how much their knowledge increased. Monday's activities started at 8 a.m. with breakfast and a class that discussed railroad grade crossings on site at the South Branch Valley Railroad. Students were divided into teams and began practicing for the "Great Handcar Race" that would take place Tuesday. Monday evening, students boarded a dinner train that took them from Petersburg to Moorefield, which wrapped up the day's activities.

Tuesday's main activity was the handcar race. After safety classes from Anthony Cole, a train enthusiast from St. Albans, W.Va., students beat the heat at the Moorefield pool.

Wednesday, students toured Seneca Caverns, and later that evening, parents and guests were invited to the annual open house dinner. Thursday morning, camp counselors and some

visiting parents got to partake in a Motorcar Trip that ran from Moorefield to Sector. Twenty motorcars participated in this scenic trip down the railway. After returning from the trip, everyone boarded an Excursion Train, which went from Petersburg to Sector, for lunch. Upon returning Thursday evening, campers got to test their OL knowledge in "Operation Lifesaver Jeopardy" as their final activity before camp ended Friday.

Camp counselor LeAndria Reed said she thought that by the end of camp, campers were more aware and in tune with the importance of railroad safety. "It's not something kids think about everyday, but once they do, they really start to pay attention."

Campers were presented with awards Friday for earning points for their teams. Following the awards presentation, campers and counselors parted ways, but with high hopes of attending camp next year.

Special Thanks goes to sponsors including Appalachian Rail Excursions, CSX, Norfolk Southern Corp., Federal Railroad Administration, Flavas Catering, RTI, South Branch Valley Railroad, TrakSpec, West Virginia Public Service Commission and West Virginia State Rail Authority.

Kudos to the men and women who volunteered their time and knowledge to make rail camp another success in 2007!





Pikeview High School Students Win 2007 Bridge Design Contest



by Errin Jewell

Two students from Pikeview High School, Olivia Milam and Kattie Riggs, received First Place High School and Overall Honors at the 2007 West Virginia Statewide West Point Bridge Design Competition. Fifteen design teams competed at the state level to design, within a two-hour time frame, the least expensive bridge that would sustain American Association of State Highway and Transportation Officials (AASHTO) load conditions.

RTI and the West Virginia Department of Transportation are primary sponsors of the state event, which is open to all middle and high school students in West Virginia free of charge. The national contest is sponsored by the American Society of Civil Engineers and administered by the West Point Military Academy.

The contest, which is an annual outreach activity for the West Virginia American Society of Civil Engineers Young Members Forum, is a nationwide, web-based competition that promotes math, science and technology education to students from age 13 and up to grade 12. The 2007 competition began in the fall of 2006, when working engineers contacted each of the state's 625 high schools and middle schools. Three hundred teams registered for the state competition, but only 250 uploaded successful designs during the January/April 2007 qualifying round. The 2007 statewide competition took place at the Clay Center for the Arts and Sciences in Charleston, April 27-28, 2007. In addition to the high school teams that competed, 2007 was the first year that five middle school teams participated.



More than 70 civil engineers and engineering majors from across the state volunteered to visit classrooms and demonstrate the bridge design software and promote the field of civil engineering as a career. Research Associate John Ball, P.E., represented RTI as a mentor and liaison for the contest.

For more information about this year's contest, visit bridgecontest.usma.edu or contact the 2007 WV Contest Coordinator, Jerry Elkins, PE at jelkins@trcsolutions.com or by calling 304-346-2599.

West Virginia Winners Circle:
1st Place High School & Overall:
 Olivia Milam & Kattie Riggs
 (Pikeview High School)
2nd Place High School & Overall:
 Lincoln Shaefer & Evan Ford
 (Brooke High School)
3rd Place High School:
 James Fuller (Greenbrier High School)
1st Place Middle School & 3rd Overall:
 Jeff Cowen & Chris Wanstreet
 (Ritchie County Middle School)
2nd Place Middle School:
 Blaine Willis & Seth Wells (Ritchie
 County Middle School)
3rd Place Middle School:
 Jared Shipe & Mark Britton
 (Ritchie County Middle School)
**2007 Outstanding Participating
 Volunteers:**
 Jimmy Wriston & Joe Carte (WVDOT)
 & Katrina Andrews (Ritchie County
 Middle School)



FROM PAGE 1: GRANT

RTI Director Robert Plymale said that since Huntington is already recognized as one of the best places in the country to research transportation issues, more jobs are inevitable. He said RTI is one of only 10 National Transportation Institutes and one of 60 University Transportation Centers in the United States.

"When you become a center of excellence, more high-tech companies are going to gravitate towards you and want to base their companies there," Plymale said.

FROM PAGE 1: Rail-SOURCE

"They played a key role in helping us get our first railroad engineering research dollar in addition to providing access to their rail lines here locally for several years." In fact, he said, "the railroad engineering research project at RTI is our largest and longest funded project.

"Since 2000, Senator Byrd has provided over \$4.3 million [of Federal Railroad Administration grants] to RTI for this [railroad research] project. We think these funds have produced some significant results that you will hear a little more about today with more results hopefully later this year."

These results include RTI's first international award for the "Best Paper Award from University Researchers" received during the 8th International Conference and Exhibition on Railway Engineering in London, England, in 2005.

Plymale said the research team, which consisted of Dr. Richard Begley, Dr. Tony Szwilski and Pete Dailey, were responsible for the international award, which would not have been possible without support and participation from CSX during the research stages.

West, President of CSX Technology and Chief Information Officer, CSX corporation, said, "Over a year ago I was asked to be a founding member and an active participant in RTI's Rail-SOURCE Advisory Board, also known as the Railroad Safety and Operations Research Center of Excellence..."

"Such a role, at least for me and my team, is very different and challenging. The program's intent, at least

With the recent grant, he said RTI can continue to progress in all areas of transportation.

RTI was established at Marshall University through a \$12 million grant thanks to the efforts of Rahall and through the Transportation Equity Act for the 21st Century in 1998. This grant includes four other schools in southern WV as partners: Bluefield State University, Mountain State University, West Virginia University Institute of Technology and Southern West Virginia Community and Technical College.

from my perspective, was to identify opportunities to improve railroad operation, safety and other measures, by using innovation and subsequent practical application. By working together, we believed the team could produce tangible benefits.

"Using CSX as the test bed, with Bernie Sanders assigned to direct our activities, CSX provided input on numerous activities: high accuracy mobile yard surveys, tracking devices on railcars, power generation for railcar sensors.

"Of those three experiments, we are already using the mobile surveying equipment in production for 2 years within CSX with great results. It is faster and safer, which translates to lower cost. In less than a year together, the teams produced tangible 'corporate' benefits.

"Based on the results I have shared with you today, we look forward through this partnership to find even more benefits for our industry from the valuable research conducted here at Marshall."

Marshall University President Stephen Kopp offered brief remarks and then presented the first Rail-SOURCE Awards to West and Mr. Bernie Sanders, Director of Progress Excellence for CSX Technology.

Kopp said, "There is no doubt in my mind that the integration of our resources, with the resources of an operating railroad, has resulted in a very unique opportunity for RTI and [Marshall University]. The Rail-SOURCE Advisory Board will play a key role in the years ahead in maintaining the momentum of the successful technology development and transfer."



Staff and Student Spotlight

Birthplace: Penfield, N.Y.
Title: Research Associate
Education: B.S. in Anthropology / Archeology from Mercerhurst College. M.S in Geobiophysical Modeling from Marshall University



Projects w/ RTI: Principal investigator for the WVDOT Linear Referencing/web portal project, GIS Curriculum Development Team, Workforce Development Study Team.

Mike Orr

Birthplace: Philippi, W.Va.
Title: Graduate Research Assistant
Education: B.A. Classical Archaeology, University of North Carolina - Chapel Hill. Currently pursuing an M.S. in Geobiophysical Modeling at Marshall University



Projects w/ RTI: Currently working on DOT Project (Linear Referencing) Previously worked on ARC, Tax Parcel Mapping Project (Gilmer, Wetzel counties), DOT GIS Training

Plymale Speaks about Role of Transportation in Greater Huntington Area at Chamber of Commerce's Young Professionals Committee Meeting

On Thurs., June 7, 2007, RTI Director Bob Plymale was the guest speaker the Huntington Regional Chamber of Commerce's Young Professionals Committee Meeting. Plymale spoke about the role of transportation in the greater Huntington area's future economic development. The meeting took place at the Pullman Plaza Hotel as part of the Chamber's lunchtime Speaker Series. Research associates Richard Hatcher, Brie Salmons and Kent Sowards, who are also members of the Young Professionals Committee, also attended the presentation.

WV Public Service Commission - Rail Safety Section Ranked #1

On July 10, 2007, West Virginia Governor Joe Manchin recognized the West Virginia Public Service Commission's (WVPSC) Railroad Safety Section for being ranked number one in the nation in 2007. In 2006 & 2005, the section was ranked second in the nation.

During the event, WVPSC Transportation - Enforcement Division Director Gary Edgel expressed appreciation for RTI's partnerships with several programs, such as Truck Driver Awareness Training (TDAT) and West Virginia Operation Lifesaver (WVOL). Because RTI has provided instructors, facilities, volunteers and training materials, research associates John Ball and LeAndria Reed were present during the recognition event.

The Railroad Safety Section is responsible for the administration and enforcement of federal and state safety regulations governing the transportation of persons and property by rail. In an effort to reduce the number of grade crossing accidents, the Railroad Safety Section is also responsible for the WVOL program.



WVOL Activities Stress Rail Grade Crossing Safety to Professionals, Adults, Students during Summer

by Errin Jewell

RTI has teamed with West Virginia Operation Lifesaver several times recently to stress the importance of rail grade crossing safety to professionals, adults and students in our region.

Wayne County Library Summer Reading Program

As part of the Wayne County Library's Summer Reading Program, RTI presented approximately 30 students and 12 parents with rail crossing safety information. On Thursday, July 19, 2007, LeAndria Reed and Errin Jewell showed summer reading program participants an informational video and gave them literature and pencils to enforce WVOL's "Stay Off, Stay Away, Stay Alive" message. Representatives from the Kenova Fire Department were also present to inform participants about fire safety.

Norfolk Southern Excursion Train

On Wed., August 1, 2007, John Ball, Jewell and Reed were a part of a WVOL team who presented safety information to approximately 106 passengers traveling by rail from Williamson to Kenova, W.Va. and back.



Above: Reed distributes safety brochures to passengers.

The trip, which was made possible by Norfolk Southern, was an educational program to make the public aware of grade crossing safety. According to Norfolk



Above: West Virginia Operation Lifesaver volunteers presented rail grade crossing safety information to passengers on the Norfolk Southern Excursion Train.

Southern Corporation, the train ride "is an opportunity to promote safety and make safest the communities through which Norfolk Southern travels."

Rail industry workers, local government, economic development professionals, safety personnel and other guests were invited by Norfolk Southern to ride in the two Powhatan Arrow passenger cars. During the trip, large television monitors

inside of each car displayed a live view of the railroad track as viewed from the conductor's seat. Riders were also made aware of the potential site of the Prichard Intermodal Facility in Wayne County.

State Fair of West Virginia

From Aug. 10-10, 2007, WVOL hosted an informational booth at the State Fair of West Virginia in Fairlea. Ball, Kimberley Baker, Errin Jewell and Kate Jordan each assisted at the booth for two shifts.

Approximately 700,000 tickets were sold during this year's fair, and the WVOL booth provided visitors with railroad safety information. Presentations were scheduled with local educators, who requested WVOL visit their classrooms, workplaces or other venues to enforce the importance of rail grade crossing safety.



Above: Jewell and Jordan were two of the RTI employees who volunteered to work at the State Fair of West Virginia in Fairlea.

