

## Contents

Small City Air Fares	2
Vachal Heads TRB Ag Transportation Committee	2
National Highway Software	3
Griffin Named to Eno Board	3
MPC Progress Slowed	4
Researchers Participate on Rural Transportation Panel	4
TRF Moves to UGPTI	5
Zink to Receive Agrey Award	5
Advisory Board Member Profile	6
DOTSC Leadership Change	7
Technology Links Transit Class	7
School Bus Routing Program	8
SURTC Publishes DTA Newsletter	8
Student Wins ITS Essay Contest	9
DOTSC Expanding Programs	9
New UGPTI Staff	10
Transportation Week Luncheon	11
Driver Performance	12

## UGPTI Adopts New Mission and Vision Statements

Adopting new mission and vision statements at the summer UGPTI Advisory Council meeting was not a change in direction for the UGPTI, but an opportunity for council members to endorse the current activities of the institute and its future direction, according to board chairman David Sprynczynatyk.

“A year ago, the council held a strategic planning session to evaluate our mission and work and how it relates to North Dakota, NDSU and the students. The new mission and vision statements are an outgrowth of that process,” Sprynczynatyk says. “As we looked back at our history, we realized that the council had never officially endorsed or adopted the mission and vision statements of the institute.”

A strategic planning committee included council members Bob Kjelland, Curt

Peterson and Jim Boyd and was chaired by Sprynczynatyk. That group worked with UGPTI director Gene Griffin, associate director Denver Tolliver and advanced research fellow Ayman Smadi to draft new mission and vision statements. Those statements were amended and adopted by the board at its summer meeting July 12.

Griffin says the new statements more clearly and completely reflect activities within the organization and encourage staff members to broaden their ideas and efforts to address emerging needs and challenges in the region.

“To be an effective organization that continues to meet the needs of our state and region, we need to periodically look at where we are and where we need to go,” he says.

### ***Mission:***

***The UGPTI educates people, conducts research, and provides outreach in the areas of small urban and rural transportation and logistics to enhance the mobility of people, goods, and agricultural commodities.***

### ***Vision:***

***Excel as one of the premiere university transportation centers in the United States.***

## UGPTI Researchers Evaluate Small City Air Fares

Research at the UGPTI reveals that regulations designed to cut those differences in airline fares between large and small cities would increase costs for airlines, making it more difficult for them to do business in small cities.

The study was prompted by concerns that while airfares have declined since deregulation in the 1970s, passengers from rural and small communities continue to pay higher fares than passengers from metropolitan areas.

John Bitzan (an Assistant Professor in the College of Business Administration and an Affiliate of the



John Bitzan

UGPTI) and Junwook Chi (an Associate Research Fellow at UGPTI) confirmed earlier studies that showed airfares are 11 percent higher in smaller communities of less than 300,000 people than they are in larger communities. The study also examined the reasons for higher fares, focusing on cost differences, demand differences and differences in carrier market power.



Junwook Chi

Airfares were found to be higher in small communities due to higher costs of serving low density markets and due to higher market power of carriers in small communities.

“Differences in cost characteristics and market power characteristics explain similar proportions of the fare differences,” Bitzan says.

“It may be tempting to look at those differences in market power and try to fix them with some form of regulated competition,” Bitzan adds. “But we found that any attempt to do so would put upward pressure on costs, and no one would want to provide service to those communities.”

The researchers note that the primary reason for higher concentration in small markets appears to be a lower density of service rather than anti-competitive actions. Airlines in small communities have fewer passengers, use smaller equipment and serve these communities less often. Introducing more competition by increasing the number of airlines at a small community airport will decrease loads for

existing airlines and decrease the economical equipment sizes. Both of these decreases will lead to an increase in the cost of serving small community airports.

The study was conducted using a 10 percent sample of all tickets sold nationwide in the year prior to the terrorist attacks of Sept. 11, 2001. Results were submitted to the U.S. Department of Transportation and were presented at the Western Economic Association International Conference in Vancouver in July.

## Vachal Heads TRB Ag Transportation Committee

Kimberly Vachal, advanced research fellow with the UGPTI, was named to a three-year chair of the Agricultural Transportation Committee of the Transportation Research Board in January.



The TRB is a unit of the National Research Council, a private, nonprofit institution that is the principal operating agency of the National Academy of Sciences and the National Academy of Engineering. The Agricultural Transportation Committee brings together professionals active in agriculture, transportation planning, academia, and the private sector to research issues of common interest. The Agricultural Transportation Task Force membership has varied research interests, ranging from the effects of rail mergers on agricultural producers to evaluating the competitiveness of U.S. exports in the world market.

At the UGPTI, Vachal works with local, regional, and national freight groups to identify logistical opportunities and assess policy implications. Her work focuses on promoting a healthy, competitive logistical system that will enhance the position of rural regions’ products and especially agricultural goods, in both domestic and export markets. She has been at the UGPTI since 1992.

“I have been active in the TRB for some time, and this new committee is an opportunity to enhance interaction among industry, policymakers and academia in the area of rural freight and agricultural transportation,” Vachal says. “It also raises the profile of the institute and the work we do in this area.”

## UGPTI Work on National Highway Software to Benefit North Dakota

North Dakota will soon have a new tool for planning highway maintenance and improvement thanks to the Federal Highway Administration (FHWA) and the UGPTI.

The FHWA developed the Highway Economic Requirements System (HERS) planning software more than a decade ago to help assess the nation's highway system. In the past three to four years, the agency has been improving the software to look at highway systems at the state level. Denver Tolliver, UGPTI associate director, has been a key part of the effort.

"We were one of the few places to use the national model to do analysis on a state level as early as 1995," Tolliver says. "As a result of that work we were invited to participate in the developers' group that was improving the software."

"Now the UGPTI is tailoring HERS to North Dakota. We're developing features that will allow NDDOT and other agencies to use it in the future," he says. The process involves substituting North Dakota highway design values for national values and adding classes of highway and additional information that may be unique to North Dakota. The software customized for North Dakota should be ready for use this fall.

"We're also developing it so it can be used in conjunction with regional economic models so we can quantify the regional economic assessments," Tolliver says.

Tolliver says the effort in North Dakota is unique and may benefit other rural states. "We're one of the few states to look at a rural highway system and assess efforts to preserve that system. Most other groups using the software are in urban areas and are primarily concerned with highway capacity."

He says the software forecasts performance of highways over time and can predict the benefits of resurfacing, shoulder upgrades and other improvements.

"The software's primary use is as a big picture planning system and to quantify benefits of preserving the existing highway system," he says. "But we can also look at parts of the system, regions of the state, a corridor, or a particular highway. We can look at tradeoffs involved with certain geometric features such as lane width and shoulder width vs. structural capacity to help make planning decisions."

## Griffin Named to Eno Transportation Foundation Board of Advisors



Gene Griffin, director of the UGPTI, was recently named to a three-year term on the Eno Transportation Foundation's Board of Advisors.

The Eno Transportation Foundation, based in Washington, D.C., works to improve mobility by anticipating and averting issues that threaten it. Activities focus on all modes of transportation and its mission is to cultivate creative and visionary leadership for the transportation sector by identifying emerging transportation issues and accelerating the consideration of steps to address them.

The foundation is named for William Phelps Eno, an international pioneer in traffic control and regulation who wrote the first "rules of the road" which were adopted by New York City in 1909 and later by cities throughout the world. He chartered the foundation in 1921 as a means of attracting the thinking of other experts and specialists and of providing a forum for unbiased discussions.

"I will be serving with leaders in the transportation industry, so being named to the board of advisors is an honor and a great opportunity," says Griffin. "The appointment recognizes the excellent work and reputation of the Upper Great Plains Transportation Institute."

Griffin has been director of the institute since 1980, a tenure that has seen the Institute's annual budget increase to more than \$3 million and the number of staff grow to more than 40. During his tenure the UGPTI has gained national stature in its focus area of rural and small urban transportation and logistics.

## Lack of New Highway Bill Slows MPC Progress

The Mountain-Plains Consortium continues to move forward with its strategic plan despite the lack of a new federal highway bill.

“We are continuing to implement our strategic plan based on short-term extensions to the current highway bill,” says MPC director Denver Tolliver. The consortium has been able to continue some research that is underway, initiate funding for some research and make plans to increase the number of educational outreach programs.

TEA-21, the Transportation Equity Act for the 21<sup>st</sup> Century, is the federal highway bill passed in 1998. Among its various components is funding for 10 competitively selected University Transportation Center programs. The Mountain-Plains Consortium is one of those programs. It is administered by the UGPTI and features collaborative research and outreach programs at NDSU, the University of Utah, University of Wyoming and Colorado State University.

“Some of our efforts have been put on hold such as bringing South Dakota State University into the MPC.” An informal agreement was reached to invite SDSU into the MPC subject to the reauthorization of the highway bill and increased funding. Increased funds were provided in both the Senate and House versions of the bill.

TEA-21 expired on Sept. 30, 2003. Several extensions have provided funding to on-going programs. The house passed a transportation bill that authorized \$457.5 million over six years to the University Transportation Centers. The senate version of the bill authorized \$265 million for the program. The White House proposal called for \$195 million for University Transportation Centers. That is equal to the current level of funding.

“We are continuing as effectively as possible on our TEA-21 funding as it has been parceled out and is subject to existing obligations,” Tolliver says.

## Transportation Institute Researchers Participate on Rural Transportation Panel

Two researchers from the UGPTI’s Small Urban and Rural Transit Center were part of a panel discussion on rural transportation issues at the annual Transportation Research Forum at Northwestern University in Evanston, Ill., March 21-23.

Gary Hegland presented results of a research project on transportation needs of the disadvantaged in North Dakota. In the study, Hegland and Jill Hough gathered information on how disadvantaged individuals use public transportation and their evaluations of existing services. The information will help transportation planners in the state focus on areas where service needs to be improved or expanded.



Gary Hegland

Hough discussed a study of rural road users’ needs in North Dakota, South Dakota and Montana. In that study Hough and Hegland compared rural road users’ perceptions of roads with decision makers’ perceptions. Information will help county commissioners, engineers and others involved with maintenance and improvements on rural roads better communicate with and meet the demands of rural road users.



Jill Hough

Hough is director of the SURTC. Hegland is an associate research fellow. The annual Transportation Research Forum features presentations on transportation research and advances from university and industry professionals. The Transportation Research Forum is an independent organization of transportation professionals. Its purpose is to provide a forum for the discussion of ideas and research techniques applicable to economic, management and public policy problems involving transportation.

## TRF Moves to UGPTI

The Upper Great Plains Transportation Institute has become the administrative home of the Transportation Research Forum.

The Forum is an independent organization of transportation professionals that provides an impartial meeting ground for carriers, shippers, government officials, consultants, university researchers, suppliers and others to discuss ideas related to both passenger and freight transportation. The group has about 400 members and was founded in 1958.

Gene Griffin, UGPTI director, has been named executive vice president of the TRF and the UGPTI has become home to the day-to-day business of the organization. The Journal of the Transportation Research Forum will be published twice a year by the UGPTI and the staff there are also maintaining the TRF website.

TRF president C. Gregory Bereskin expressed enthusiasm at focusing most TRF activities at the UGPTI. "We believe there are great synergies here. We look forward to a long period of joint collaboration."

"There are some real benefits to the UGPTI as well for providing a home to TRF," Griffin says. "We will benefit from closer relationships with our colleagues across the continent. Sharing ideas, resources and knowledge have always been a strength for us. This will only strengthen that. Additionally, this will raise the awareness across the country for the excellent work we do here."

TRF was previously managed by the Eno Transportation Foundation based in Washington, D.C.

## Zink to Receive Agrey Award from Transportation Institute

Ray Zink, retired chief engineer for the North Dakota Department of Transportation will receive the John M. Agrey Award from the UGPTI.



The award recognizes significant contributions to transportation. It is named for John Agrey, a pioneer and innovator in North Dakota transportation who worked for more than 30 years with the North Dakota Public Service Commission. Zink will receive the award Sept. 28 at the Upper Great Plains Transportation Institute's Annual Awards Banquet at the Fargo Holiday Inn.

During his career Zink implemented major reforms within the department. He created the "master equipment operator" position which was instrumental in slowing turnover in the ranks of equipment operators and reinstating pride within the maintenance force. He also led the consolidation of maintenance sections leading to more efficient, productive employees and workstations. Finally, he established the low-load program to preserve the highway system by limiting the weight of tractor-trailer vehicles.

Originally from Bordulac, N.D., Zink earned a B.S. degree in engineering from NDSU in 1959. He began his career with the NDDOT that same year as a draftsman and eventually became the department's chief engineer. He retired in 1999 as deputy director for engineering policy and director of the office of highway operations.

Zink also served as vice-chair of the American Association of State Highway Transportation Officials (AASHTO) Standing Committee on Highways. He also served on the AASHTO Committee for National Cooperative Highway Research Programs.

Colleagues note that during his more than 40 years with the North Dakota DOT, he worked effectively with three governors, four NDDOT directors, members of both political parties and the workers of the DOT. Zink and his wife, Alita, have four children and live in Bismarck.

## Advisory Board Member Profile: David Sprynczynatyk

David Sprynczynatyk became a member of the UGPTI Advisory Board when legislation enacted by the North Dakota Legislature in 2003 required a representative from the North Dakota Department of Transportation to serve on the board. But Sprynczynatyk is not reluctant to serve.

“Even before the law was changed, I participated as an observer and interested party. The NDDOT is not just highways, our role is to provide an overall transportation system that is part of the economic well-being of North Dakota. From my standpoint, transportation is absolutely critical for North Dakota today and for our future as well. The Institute is in a position to help us,” he says.

Sprynczynatyk was appointed North Dakota Director of Transportation on Jan. 1, 2001 by Governor John Hoeven. He had previously served as North Dakota State Engineer and Secretary to the State Water Commission. His interactions with North Dakota State University go back more than 35 years. He graduated from NDSU in 1972 with a B.S. degree in civil engineering.

He is a registered professional engineer in North Dakota and is a member of the National Society of Professional Engineers and the North Dakota Society of Professional Engineers, having served one term as the state society’s president. He is also on the Board of Directors for the American Association of State Highway and Transportation Officials and is the vice president of the Western Association of State Highway and Transportation Officials.

Sprynczynatyk says the UGPTI fills two key roles for the DOT. “First, it’s a link between our department and the academic community at NDSU, especially the students. We have a great need for well-trained, well-qualified people.”

“Secondly, I view the institute as a valuable resource to us as we make decisions about the future of transportation in North Dakota. I look at the institute as an extension of the department and we’re able to bring the resources and expertise of the institute to our discussions,” he says.



Those roles will continue to grow in importance as transportation systems in the region face several key challenges, Sprynczynatyk says. Those challenges include:

- An aging highway system.
- Changing demographics with fewer people and more elderly in rural portions of the state and a younger and growing population in urban areas.
- Growing needs for high quality transportation systems across the state to safely and economically move people and goods.

“Dealing with changing demographics and ongoing funding limitations while being able to move people safely around the state are big issues,” he says.

“We also need to make sure North Dakota isn’t land-locked from the rest of the world — that people who choose to do business around the world can do so from any corner of the state.

Sprynczynatyk is also a graduate of the U.S. Army War College and a brigadier general in the North Dakota Army National Guard, currently serving as J-4 Logistics Director of the National Guard Bureau. He and his wife, Connie, have two children, Thomas and Cathryn.

## Leadership Change at DOT Support Center

With the retirement of Dennis Jacobson, Kurt Johnson will take over direction of the DOT Support Center.

Johnson has been at the UGPTI since 2003 and brings more than 23 years of highway industry experience to his new position.



Kurt Johnson

His work at the UGPTI focuses on asset preservation and management. Before coming to NDSU, Johnson was project manager of the American Association of State Highway and Transportation Officials in Washington, D.C. for 10 years. Before that he spent five years as vice president of a consulting company that specializes in pavement engineering. Immediately after earning his B.S. in construction management from NDSU, he spent nine years as a senior engineer with the North Dakota DOT.



Dennis Jacobson

Jacobson “retired” in June to half-time work with the UGPTI. The rest of his time is devoted to the North Dakota National Guard where he was recently named assistant Adjutant General. Many of the units under his direction focus on construction, transportation, infrastructure support and engineering. His civilian and military duties intersect in an effort to establish a joint military logistics training program at NDSU.

Jacobson joined the UGPTI in 2000 after more than 28 years with the North Dakota DOT. He joined the DOT in 1972 immediately after earning his B.S. degree in civil engineering from NDSU. He retired as East Region Engineer in charge of all construction and maintenance in eastern North Dakota.

In 2001 he earned two masters degrees: one in civil engineering from NDSU and one in strategic studies from the U.S. Army War College. He’s continuing to work on his Ph.D. dissertation. His research focuses on using microsensors in asphalt pavement to measure chemical changes over time. The sensors will be mixed into the asphalt at the plant and monitored wirelessly.

## Technology Links Students and Instructors in Transit Class

A dozen students from five states were enrolled spring semester in the “Introduction to Public Transportation Course” offered by NDSU and coordinated by an instructor in yet another state. Interactive video technology was the key to the course’s success.

“The television technology worked very well every week,” noted Jim Miller, a retired faculty member from Pennsylvania State University who is now an affiliated faculty with SURTC. “It never let us down.”



Jim Miller

The course is offered on the NDSU campus and is linked to universities and departments of transportation in North Dakota, South Dakota, Colorado, Utah and Wyoming via the TEL8 system, a telecommunications link serving that region and designed to enhance transportation research, education and technology transfer.

The course was coordinated by SURTC. “The TEL8 system and interactive video technology give us access to national-level expertise,” says SURTC director Jill Hough. “Students and professionals across the region are able to share their common challenges and benefit from each others’ unique perspectives and experiences.”

The course featured lectures by Barbara Sisson, associate administrator for research, demonstration and innovation in the Federal Transit Administration, and Bill Millar, chief executive officer of the American Public Transportation Institute.

In addition, students in the class presented a major research project to the class. Topics included:

- Light rail projects in Salt Lake and Minneapolis,
- Smart growth,
- Applications of intelligent transportation systems,
- Mass transit pricing,
- Mass transit for riders with disabilities,
- Coordination among mass transit agencies.

Hough and Miller say the class will be offered during the spring semester of 2005.

## SURTC Launches School Bus Routing Program

Every morning and afternoon during the school year, fleets of school buses fan out across the state. Those fleets represent a huge financial outlay for taxpayers and an investment of trust by parents depending on the buses and drivers to get their children to school safely and on time.

The challenge of getting kids to school in North Dakota is growing as the number of school aged children is shrinking while the distance between them is growing.

“With fewer students and a consolidation of school districts, bus routes are getting increasingly complex,” says Jill Hough, SURTC director. “But there is continued pressure on schools to provide busing that is safe, timely and efficient.”

To answer that need, SURTC is proposing a School Bus Routing Support Program to assist schools in developing and refining their bus routes.

“In many schools, there is a lack of expertise, technology and time to address routing issues. Software is available, but it is also complex,” Hough says. “We’re proposing that a more efficient approach would be to centralize some of that expertise here and provide it to school districts affordable assistance in addressing routing issues.”

The program would:

- Analyze North Dakota school district routing issues to identify widespread problems and opportunities.
- Establish a “help center” to assist school districts with problems throughout the school year.
- Develop school bus routes to maximize efficiency.
- Explore policy issues associated with school transportation funding.

In addition the program would look at ways to use the transportation capacity of school districts to serve broader communities. “As the population ages, transportation is becoming an important issue in rural areas. There may be ways that agencies can partner with school districts to use school vehicles to serve other needs,” Hough says. “It may be possible to serve multiple needs in a community with a single fleet of vehicles. That approach may be more efficient for all the agencies involved.”

Work on some of the issues has already begun. David Ripplinger, an expert in computer modeling and statistics is evaluating computer routing programs. SURTC specialists are working with the West Fargo School District and are looking for cooperators among the state’s smaller school districts to test some of their concepts.

The program will be proposed for full funding to the Legislature next year and SURTC staff members are exploring partnerships with officials at the North Dakota Department of Transportation and the North Dakota Department of Public Instruction.

## SURTC Publishes DTA Newsletter

With the spring issue, the UGPTI’s Small Urban and Rural Transportation Center began publishing the Dakota Transit Association’s quarterly newsletter. The “Dakota Transporter” will highlight opportunities, issues and ideas that will be useful to transit agencies across North and South Dakota. SURTC director Jill Hough and research fellow Gary Hegland are serving as editors. Within the next several months, newsletters will be available on the Web and distribution may eventually move to e-mail to improve timeliness and efficiency.



## NDSU Student Wins Intelligent Transportation Systems Essay Contest

NDSU graduate student Jerilyn Swenson was one of two students selected as winners in the ITS America Student Essay Competition.

Swenson is a masters student in civil engineering and an associate research fellow in the Advanced Traffic Analysis Center, part of NDSU's Upper Great Plains Transportation Institute.

The competition is designed to encourage student interest and future participation in the development of intelligent transportation systems. Intelligent transportation systems encompass a broad range of communications-based information, control and electronics technologies integrated into the transportation systems to help monitor and manage traffic flow, reduce congestion, provide alternate routes to travelers, enhance productivity and improve safety and efficiency.

The two winning essayists, Swenson and Virginia Tech student Tushar Awar presented their winning essays at ITS America's 14th Annual Meeting and Exposition, April 26-28, in San Antonio, Texas. They received transportation, hotel accommodations, complimentary registration, and up to \$150 in expenses to attend the meeting.

Swenson won for her paper responding to the question: "Which ITS technologies are the most important to integration of mobility, safety and security, and what are the best current implementations of these technologies?"

Swenson's essay examined six major areas of intelligent traffic systems, ranging from advanced transportation management systems to advanced vehicle control and safety systems and their impact on mobility, safety, and security.

The winning essays will be published in the show's CD-ROM.



## DOTSC Expanding Programs

In its relatively short history, the DOT Support Center (DOTSC) has already earned a reputation for developing students with the technical knowledge and experience to be valuable in the field.

"We're working now to build on that strong foundation," says DOTSC director Kurt Johnson. "We want to round out our students more and more to build a strong selling point of experience for our students to the DOT and consultancy firms."

DOTSC and UGPTI are developing joint programs with Bismarck State College. Jon Mielke, retired executive secretary of the North Dakota Public Service Commission, is heading that effort and will teach at BSC. "We anticipate that students will take entry-level courses there and then come here to NDSU for more advanced work," Johnson says.

Part of the NDSU experience is working as part of a student design team on actual DOT projects. Johnson says that effort will be expanded to include experience in materials testing and other areas that will give students a head start as design engineers.

## New Staff at Transportation Institute

**Jerilyn Swenson** joined UGPTI's Advanced Traffic Analysis Center in July 2004 as an associate research fellow. She began work with ATAC in early 2002 as an undergraduate research assistant. Swenson's main responsibility is the design and maintenance of metropolitan transportation models.

Swenson updates network and socioeconomic information and generates traffic scenarios requested by clients. She performs model runs, analyzes the resulting data, and creates maps and data summaries for ATAC's clients. She has been involved with several long-range transportation planning projects and is currently working on various projects for the F-M Metropolitan Council of Governments and the NDDOT. Swenson received her bachelor's degree in civil engineering the Spring of 2003 and is pursuing a master's degree.



**David Ripplinger** joined the staff of the UGPTI's Small Urban and Rural Transportation Center in June.

Ripplinger previously worked with the institute as a research assistant while earning his B.S. degree in agricultural economics from NDSU. He earned his M.S. in economics from Iowa State University in Ames. While at Iowa State he collected and analyzed data on international meat trade and conducted research on intellectual property rights in agriculture.

Ripplinger also served as an agricultural fellow in Washington, D.C., researching and writing briefs, speeches and papers for Iowa Senator Charles Grassley. He also was a research assistant with the USDA's Economic Research Service.

Ripplinger, originally from Devils Lake, will use his expertise in computer modeling and statistics in a project to help North Dakota school districts develop more efficient school bus routes. He will also work on traffic demand models and other computer modeling applications for the Small Urban and Rural Transportation Center.



**Jon Mielke** joined the UGPTI in March at Bismarck State College where he is involved in transportation educational programs developed jointly with the UGPTI. He also conducts research on transportation and traffic issues in the state.

Mielke retired in 2004 after 23 years with the North Dakota Public Service Commission. He served as executive secretary of that group since 1994 and was also director of the licensing division overseeing licensing of elevators, grain buyers, hay buyers, auctioneers and auction clerks. The licensing division also enforces state regulations relating to railroads. Originally from Grafton, Mielke holds a bachelor's degree in business and a master's degree in public administration both from the University of North Dakota. Early in his career, he worked with the North Dakota Highway Department and the City of Minot dealing with transportation and traffic issues.



**John MacGowan** was named national program coordinator in March and will work with federal agencies to match their needs with expertise and experience at the Institute.

John MacGowan, of Swanton, Md., will work part-time in Washington, D.C., collaborating with the Federal Highway Administration, Federal Motor Carrier Safety Administration, other federal agencies, and private motor carrier trade associations.

MacGowan retired from federal service 2001 after more than 30 years of work in federal transportation agencies. He served as director of the Office of Research and Development and director of Office and Bus and Truck Standards and Operations for the Federal Motor Carrier Safety Administration. Before that he was director of the Office of Operations Technology Services for the Federal Highway Administration.

## UGPTI Hosts Transportation Week Luncheon



**Tom Jirik** was hired as communication coordinator in February. He has been at NDSU for eight years as communications specialist with the agriculture communication department. He holds a bachelor's degree in mass communication and agricultural economics from NDSU. Before coming to NDSU he worked for nearly nine years in agricultural communication at Iowa State University. He began his communications career as a newspaper reporter in Iowa.

He will work with administration and staff to enhance the institute's marketing and communication efforts.



**Patrick Johnson** has joined the Transportation Safety Systems Center. As information technology project manager, Johnson will manage software applications and support functions for the center. He has been in the information technology field since 1981 and has been an information technology project manager since 1991. He has worked extensively with client/server and Web-based software applications.



**Brad Wood** is a new senior software engineer with the Transportation Safety Systems Center. He will be an integral part of the center's software development team and is already involved with several new development projects. Wood has extensive experience with software engineering, Web services and relational databases.

Nearly 40 people attended the National Transportation Week Luncheon sponsored by the Mountain Plains Consortium at NDSU on May 20.

The annual luncheon, held during National Transportation Week, is an opportunity for researchers across campus and transportation professionals across the area to celebrate transportation advances and share ideas, says Denver Tolliver, MPC director.

David Huft, director of the South Dakota Department of Transportation's Office of Research, was the keynote speaker. Huft outlined SDDOT's research program and highlighted the department's approach and philosophy toward research. He said future transportation in South Dakota will focus on reducing travel times, improving the capacity of the transportation system and safety. "All of those areas will need to be balanced with environmental concerns," he said.

Registered guests included faculty from five academic departments representing three colleges at NDSU. There were also representatives from the South Dakota Department of Transportation, the North Dakota Department of Transportation, the Fargo-Moorhead Council of Governments and three out-of-state universities.

## TSSC Adds Driver Performance to Safety Inspection Criteria

A new tool is being developed by UGPTI's Transportation Safety Systems Center (TSSC) to help commercial vehicle enforcement agencies identify potentially unsafe drivers.

The Federal Motor Carrier Safety Administration and State inspection agencies nationwide use the Inspection Selection System (developed by TSSC) to focus inspections on commercial vehicles with poor safety records. The system, in use nationwide since 1995, assigns an inspection value based on past inspections and safety performance of the carrier. Vehicles and drivers of carriers with high inspection values are singled out for more stringent and frequent inspections.

"The current system includes limited driver data, but its main emphasis is vehicle-related violations," says Brenda Lantz, TSSC director. "In research we examined driver convictions for moving violations — the kind that show up on your driver's license record." In the study, researchers linked data from the Commercial Driver's License Information System to employing motor carriers. "It was no surprise that we found that motor carriers that hired less-safe drivers had worse safety records," Lantz says.

Based on that effort, researchers and software designers at the TSSC began looking for ways to integrate the driving records of drivers into the Inspection Selection System.

"Research indicates that driver-related factors are the main cause of most commercial vehicle related crashes," Lantz says. "We want to provide a greater concentration on the commercial driver with the goal of reducing the number of crashes, ultimately reducing property damage, preventing injuries, and saving lives."

Researchers first had to determine how much emphasis to give the driving record data. Does it have more of an influence on overall truck safety than equipment or other violations? To what degree?

Next they needed to integrate the information into the current Inspection Selection System. They've completed this and will be field-testing the modified system in at least five states in the coming year. "We're selecting states with the highest number of commercial vehicle crashes, states that are willing to test the new software on their hand-held computers and states willing to test the software with their electronic screening systems — systems that automatically select vehicles for inspection based on pre-selected criteria. The work is expected to be complete in 2005.

"This has been an exciting project, because we are able to conduct the research and then implement and test it in a real-world setting," Lantz says. The study grew out of a Federal Motor Carrier Safety Administration effort in 2000 to identify technology and techniques to improve safety in the coming decade.