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## Freight Transportation Center Established to Study Regional Issues

Improving freight movement in the region stretching from Chicago to the Pacific Northwest is the focus of a new research and outreach center at North Dakota State University, Washington State University and the University of Washington.

“Regional freight transportation issues are gaining importance almost daily,” U.S. Senator Byron Dorgan said. “The interstate nature of today’s commerce—and the inter-jurisdictional issues that arise from it—demand that we think more broadly. I think this new effort to look for more and better ways to improve freight transportation in the region is an exciting step in the right direction. Improving our regional freight system will help businesses and industries in our rural communities, and our farmers, compete more effectively in today’s global marketplace.”

The Northern Plains-Pacific Northwest Center for Freight Mobility is funded through a \$500,000 appropriation in

the 2005 Department of Transportation Appropriations Act.

Dorgan said the three universities have long-standing transportation research and outreach programs, making them well-suited to a regional collaborative effort. The 12 states in the region share similarities, including small communities and large, sparsely-populated areas with a historical economic dependence on agriculture.

“Businesses are continually evaluating locations and adjusting operations to meet the changing economic and political environment. We see this center playing an important role in monitoring and predicting these changes and the resulting impact on infrastructure and freight transportation providers. As a result, our region will improve its competitiveness in a global economy,” notes Ken Casavant, professor of agricultural and resource economics at Washington State University.

(Center continued on page 2)

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NDSU is an equal opportunity institution.



Ken Casavant, Washington State University; Nancy Nihan, University of Washington; Gene Griffin, Senator Byron Dorgan, Phyllis Scheinberg, U.S. DOT; Tony Furst, Federal Highway Administration.

## Funding Grows for UGPTI Programs

The long-term accomplishments of UGPTI are being recognized by state and federal decision makers, says UGPTI director Gene Griffin.

“The investments made in our programs have paid big dividends over the years,” Griffin notes. “Congress, legislators and funding agencies are recognizing the value of what we do and are recognizing our excellence by increasing their investments in our programs.”

Developments are in place which will increase the annual budget of UGPTI significantly. These developments include:

- An increase in funding for the competitively selected regional transportation centers, the Mountain-Plains Consortium, from \$1 million to \$2 million per year. MPC will need to compete with other universities and consortiums for the funding. MPC won recompetitions in 1991 and 1998.
- Expansion of the Small Urban & Rural Transit Center from \$400,000 to \$1.2 million annually.
- Development of a Masters in Military Logistics which will attract 30 to 40 students each year.
- Establishment of an associate degree in transportation by Bismarck State College in collaboration with UGPTI.
- A new Rural Transportation Safety and Security Center with an annual budget of \$500,000.
- Expansion of the Transportation Learning Network focusing on technical training for four regional state DOTs, including North Dakota.
- An increase in core funding for the Institute from \$243,000 per year to \$400,000 per year.

“While the establishment and expansion of our programs is exciting, what really is important are the results they yield for rural and small urban transportation in the Upper Great Plains and across the nation,” Griffin says. “The added funding carries with it an added responsibility to do top quality work that improves the mobility of people and freight.

“None of this would happen without a highly motivated and extremely qualified team of people working toward the goal of creating a premier university transportation research and education center,” he added. “The client-driven nature of our program integrated with innovative research and technology puts us in an excellent position to continue to grow into the future.”

(Center continued)

Transportation security will also be a focus of the center. “Freight transportation is responsible for moving a great deal of hazardous material,” notes Nancy Nihan, Department of Civil and Environmental Engineering at the University of Washington. “At the same time, freight transportation of just about any kind could be subject to potential terrorism. These factors pose important threats to the security of those located in and around freight movements. This is to say nothing of the potential impacts on commerce and the economy. A better understanding of regional freight transportation can only help understand and mitigate such potential threats.”

“We will be the first to look at these kinds of transportation issues on a broad regional scale,” notes Gene Griffin, director of the Upper Great Plains Transportation Institute at NDSU. “That will give this region the ability to develop some competitive advantages in freight transportation. Secondly, it will establish a model for research and outreach in other parts of the nation.”

In its initial phase, the center is developing a profile of the region’s freight infrastructure and economic traffic. It will survey state department of transportation directors and personnel to learn about issues and research needs. Those steps will help identify critical freight planning issues. Center collaborators will promote a regional perspective in freight planning and policy making. They will also work with state departments of transportation to assess their ability to address freight planning, operations and policy issues in a regional context. Finally, they will work to enhance the understanding and visibility of freight transportation among policy makers.

## Rural Transportation Safety and Security Center Established



**Gary Berreth**  
Highway Administration.

A new Rural Transportation Safety and Security Center will address the unique safety and security issues of rural transportation in the north central United States. The research and outreach center is a collaborative effort between UGPTI and the NDDOT with funding from the Federal

“To date, most resources for addressing safety and security needs have been concentrated in urban areas,” notes Gary Berreth, director of the new Center. “But rural areas face substantial challenges in meeting safety and security needs. The infrastructure in rural areas is vast and the rural portion of the system plays an important role in the nation’s economy, defense, and quality of life.”

The Rural Transportation Safety and Security Center will develop a thorough understanding of the dynamics of safety and security of transportation in a rural environment and translate that understanding into a safer, more secure transportation environment through research, education, and outreach. “Our programs will be geared toward rural areas, agencies and organizations in ways that will make them easy to use and afford,” Berreth says. The Federal Highway Administration will provide about \$1.7 to \$2 million to fund the first five years of operation (FY2005-2009).

The Center will be unique in three main areas:

- Its activities will have a rural focus and will include technology transfer programs for state and local entities as well as tribal governments.
- Its activities will integrate safety and security concerns.
- Consideration will be given to both freight and passenger transportation across highway, rail and other modes.

Research will focus on the risks to rural transportation safety and security, technology and techniques to address those risks, and data needs to quantify those risks. The Center will also work with the NDDOT to develop its Strategic Highway Safety Plan.

“Initially we will focus on North Dakota and border areas, but as the program develops we anticipate that the influence and services of the Center will be expanded to include other rural states and provinces,” Berreth says.

Why the focus on rural safety and security? The National Highway Traffic Safety Administration found that from 1994 to 2003 about 42 percent more fatal crashes occurred in rural areas than in urban areas. The agency found that more multi-fatality crashes occur in rural areas and when the number of fatalities is calculated per mile traveled, the rate is about double that of urban areas.

North Dakota has a 300-mile border with Canada with only 18 staffed border stations and about 200 local road or backwoods crossings. The state has six bridges and a major dam along its 300 miles of Missouri river. There are three major railroad mainlines crossing the state. Truck transportation is significant in the state and the region is crossed by pipelines.

“Sparsely populated areas, miles of marginally protected border areas, corridors with high volumes of commercial traffic, limited security staffing, and the general trusting nature of people in rural areas may be a draw for terrorist acts,” Berreth notes. “Particularly as urban areas implement more deterrents.”

## UGPTI Provides Truck Cost Information to Aid Ag Processors and Elevators

As fuel prices and other costs continue to rise, truck transportation costs play an increasingly important role in crop marketing plans and decisions.

In collaboration with the USDA, the UGPTI provides some of the only data available in the nation on truck shipping costs for agricultural commodities. “Information on the cost of moving products by barge, rail and ocean are all available. But, there is no other cost information available on trucking,” notes Tamara VanWechel, the UGPTI associate research fellow who tracks the costs.

Crop producers, elevators and grain and oilseed processors are the primary audiences for the information. They use the data to project costs and to evaluate their product transportation plans, VanWechel says. Other organizations such as the N.D. Wheat Commission and the USDA also rely on the data for their market analysis.

NDSU began tracking the truck costs for USDA late in 2003. The information is based on a brief quarterly survey administered to elevator managers and a few crop processors in 17 states. Right now, data is largely from the north central region of the United States, the nation’s largest crop-producing region. “We are working to expand the data we receive from the Rocky Mountain, West Coast and south central regions of the country,” VanWechel says.

The survey asks for short, intermediate and long-haul costs and asks shippers how easy it is to obtain truck shipping services. The survey also asks if respondents are doing more or less of their shipping by truck than the previous year.

“This is not an exact science, but it does provide an index of shipping costs and availability. That index allows us to identify trends and estimate how much truck shipping is going on in the industry,” VanWechel says.

The truck cost information is integrated into the USDA’s weekly Grain Transportation Report. The UGPTI also compiles futures and spot market prices for various regions; rail car availability and prices from major railroads and secondary markets; rail

rates on major shipping corridors for wheat, corn and soybeans; and weekly ocean vessel activity for major grain loading ports. That data is all included in the weekly USDA report located at [www.ams.usda.gov/tmdtsb/grain/](http://www.ams.usda.gov/tmdtsb/grain/)

## Transportation Infrastructure’s Role in Economic Development Studied

At the request of the North Dakota Legislature, UGPTI researchers are examining the relationship between investments in transportation infrastructure and economic development.

“In particular, we’re looking at how those investments impact producers and manufacturers and their ability to market their products,” says Denver Tolliver, UGPTI associate director and the researcher leading the effort.

The researchers are evaluating the impact of factors ranging from seasonal load limits on North Dakota highways to levels of air service across the state. They will also look at the economic benefits of railroad services in the state. Additionally, the researchers are examining whether it is feasible to identify and aid selected airports to assist in economic development.

“This is a very broad, far-ranging effort,” Tolliver noted.

The work is being done in conjunction with the NDDOT because the effort meshes so closely with that department’s strategic planning process. In testimony before the Legislature’s Interim Economic Development Committee, the NDDOT testified “that transportation plays a key role in economic development, but historically has been the last issue addressed. The testimony indicated that transportation needs to be at the front end of economic development discussion.”

UGPTI researchers will go before the Legislative Council in late June to report on the research.

## Study May Help Revive Vanpooling

Based on interest in vanpooling, high gas prices and an evolution in demographics and business in North Dakota, the UGPTI's Small Urban & Rural Transit Center has recommended the re-establishment of a commuter vanpool program in the state on a three-year trial basis.

The recommendation was the result of a study conducted by SURTC with the North Dakota Department of Commerce. The study recommends using federal funds for the trial period. That period would help state officials determine whether or not vanpools are needed and wanted in North Dakota, and whether or not the service should continue. SURTC recommends setting a goal of establishing 10 vanpools per year during each year of the trial period. Additional recommendations focus on incentives to attract and retain drivers and riders. Estimated cost over the three-year period is approximately \$500,000.

Vanpool programs previously existed in the state, but have largely disappeared. "We've looked at how this concept has changed since North Dakota last had an aggressive program in the late '70s and early '80s," says Jon Mielke, the SURTC researcher leading the project.

Today there are federal incentives for vanpooling programs, including funds from the Federal Highway Administration for no-interest loans for purchasing vans. Tax law has changed to allow employees to use pre-tax flexible spending accounts for transit expenses.

"The economic landscape of North Dakota has changed as well," Mielke notes. "We have major employers like Pro-Gold, Dakota Growers Pasta, Marvin Windows and others that have facilities located in relatively small communities and draw employees from a large surrounding area. We also have employees choosing to live in rural areas and commute to larger communities for employment. Those factors lend themselves to ride sharing."

To encourage riders to join the vanpool, the program will provide cost-effective, comfortable and safe rides, drivers trained in defensive driving and a guaranteed ride home program.

The study surveyed employers across the state to learn about employment trends and employer attitudes toward ride sharing. In addition, researchers surveyed employees to assess their openness to ride sharing. SURTC staff also met with representatives from agencies that could provide additional incentives for vanpooling.

Mielke managed the North Dakota DOT's vanpooling program in 1979 and 1980. "I went to the Department of Commerce and asked if there was interest in and incentives for vanpooling in the state. It turns out that, yes, there is interest and there are more incentives than there used to be."

The study also analyzed 15 vanpool programs that are operated by state and local entities around the country. Drawing from the most attractive features of those programs, the study presented a set of recommendations that may be considered if North Dakota decides to reinstitute a state commuter vanpool program. A copy of the final report is available at [www.surtc.org/research/vanpool.php](http://www.surtc.org/research/vanpool.php)

## Hough Named to NTI Board



Jill Hough

Jill Hough, the director of UGPTI's Small Urban & Rural Transit Center has been named to the advisory board of the National Transit Institute at Rutgers University in New Jersey.

The NTI provides training education and clearinghouse services in support of public transportation and quality of life in the United States.

Hough says she was selected for the position because NTI was looking for another university representative on its board. "Serving on the NTI advisory board is a nice fit with my responsibilities at SURTC," Hough says. "NTI's emphasis is on training and we'll be able to tap into that and possibly partner with NTI to meet the needs of our clients. Also, I'm able to bring a university voice and a rural and small urban perspective to the NTI board."

The advisory committee usually meets about twice a year. Hough's term is six years.

## UGPTI Proposes Building

Rapidly growing programs and a campus space shortage is prompting the UGPTI to begin developing a proposal for its own building.

“A transportation building on the NDSU campus would be an enormous benefit to our program and to the entire university,” notes UGPTI director Gene Griffin. “Currently, our staff members are located in three locations across campus, making interaction and collaboration a challenge. A building of our own would allow us to consolidate our programs and give us added flexibility to add staff and technology. It would be a step forward in excellence for us and the university.”

With an annual budget of more than \$8.2 million and research grants of more than \$7.6 million, the UGPTI has established ties with faculty across campus as well as private-sector and public-sector transportation professionals. “A transportation building would be a focal point where all of those people could come together to work on transportation issues affecting the region and the nation,” Griffin says. “The building would be a hub for transportation research, education, technology transfer and outreach.”

The preliminary proposal calls for highly functional space with state-of-the-art equipment and furnishings. The building would compliment the NDSU campus, would feature cost-effective design, construction and operation and include technologically advanced features. The building’s inviting environment would feature flexible use of space that could be reconfigured as programs and technology change.

The proposal calls for a building of about 50,000 square feet on possibly two levels. Estimated cost for the building is about \$6 million. The main or ground level would provide homes for the:

- Transportation Museum and Interpretive Center
- UGPTI educational programs
- Traffic Operations Center
- Driving simulator

The upper level would house:

- UGPTI staff offices
- UGPTI labs
- Conference and meeting rooms
- Graduate and undergraduate research student areas

Currently, the UGPTI has about 50 staff members, 40 graduate students, 12 graduate research assistants and 25 undergraduate research assistants. Those staff and students are located on the fourth floor of the Industrial Agriculture and Communications Center, the basement of Hastings Hall and the upper level of the Criminal Justice and Public Policy Building.

“Right now we are exploring fundraising and early concepts for a building with university administration, potential partners such as the North Dakota Department of Transportation and the City of Fargo, as well as a few potential donors,” Griffin says. “Preliminary response has been positive and the project will continue to evolve and develop as we incorporate additional ideas and thoughts.”

## Ripplinger Named to TRB Committee



Dave Ripplinger, associate research fellow with SURTC, has been named to the Transportation Economics Committee of the Transportation Research Board.

Committee members review papers for the board’s annual meeting, plan the economics portion of the meeting and plan other events related to economics in transportation. The committee’s purpose is to encourage the application of economic concepts and methods to the analysis of transportation systems and infrastructure.

Ripplinger has been with UGPTI since 2004. His work focuses on computer applications for bus routing and on GIS/GPS applications in transit.

## Advisory Council Profile: Gary Ness



Gary Ness

Although the aviation industry in North Dakota faces challenges, the future is promising says Gary Ness, executive director of the North Dakota Aeronautics Commission.

“We’ve found that corporate aviation is strengthening all the time,” he says. Corporate

planes allow executives to reach specific destinations on specific schedules and that’s a valuable time management tool. Corporations are also moving toward larger aircraft.

“At the same time, interest in our small airports across the state is still strong,” Ness says. “After some years of decline, aircraft ownership is level or perhaps growing a little bit.”

He also notes that North Dakota’s aviation infrastructure has made vast improvements. “From 2000 to 2005, more than \$160 million has been invested in snow removal equipment, equipment buildings, new/reconstructed runways, terminals, hangars, fueling systems, general repair and maintenance and other specialty facilities. The U.S. Congress increased the FAA Airport Improvement Program to support those improvements and we’ve taken advantage of them whenever we can.”

The state does face some aviation challenges.

“As our smaller communities gray, maintaining air service for medical facilities as well as for businesses in those communities will be a challenge,” he says. Many regional medical facilities are now flying doctors to outlying clinics to provide specialty services. Businesses are relying on air service for just-in-time delivery of parts and personnel. “It will be important to keep our general aviation facilities fit for those kinds of services,” he says.

Ness notes that as of this spring when Delta airlines begins providing service from Fargo to Salt Lake City, there will be service from North Dakota to four major airline hubs: Chicago, Denver, Minneapolis and Salt Lake City. “I can leave from Bismarck in the morning and be in Washington, D.C., before noon,” Ness notes. “Maintaining that kind of service will continue

to be a challenge. We work with airport managers and others to provide the data and analysis to maintain that level of service.”

Ness has served on the UGPTI advisory council since he became executive director of the Aeronautics Commission in 1986. By law, the executive director serves on the Institute’s advisory council. The mission of the commission is to promote, enhance and regulate aviation for the state.

“As big as the aeronautics industry is, it doesn’t always get the exposure and consideration it should,” Ness notes. “I took it seriously that all modes of transportation have to be at the table. The Transportation Institute, to be whole, has to cover all the modes.”

Ness complimented the UGPTI on its work in the aviation industry. He cited several studies including research that examined the relationship between fixed-base operators and economic development, work to identify and describe the state’s network of helipads, a regional airfare study, and an effort to measure the economic impact of aviation in North Dakota.

Whether it was his father’s aerial crop spraying business, his own time in the cockpit in that business, or his time as an aviator in the U.S. Navy, aviation became second nature to Ness. “I basically grew up on an airport and on my uncle’s farm,” he says. He continues to hold a commercial multi-engine and instrument pilot certificate.

He participated in the family business for eight years before spending four years as a naval aviator. After leaving the Navy, he was assistant manager of the Federal Land Bank in Grand Forks and was later vice president of First Federal Savings and Loan. From 1980 to 1986 he was sales manager for AGSCO, a regional agricultural chemical company headquartered in Grand Forks. He was hired by the Aeronautics Commission in 1986.

“It’s a great job and I’ve had a great time since I started,” he says. He relates how one morning he met with local officials at the Underwood airport which consisted of a hanger and a grass strip. The strip was threatened by a nearby mine and discussions focused on how to move/replace the airport. “72 hours later, I was in Presidential Chief-of-Staff John Sununu’s office

(Ness continued on page 9)

## UGPTI Launching Masters of Military Logistics Program

NDSU and UGPTI are launching a Masters of Military Logistics program, a first-of-its-kind program to provide training in military logistics and transportation to public, private and joint military and civilian personnel.

“With its history of transportation research and education, the UGPTI is uniquely qualified to develop this kind of program,” notes program manager Brian Kalk. The program is targeted specifically at career military officers and Department of Defense civilians.

The MML program was a vision of the director of the Upper Great Plains Transportation Institute following Desert Storm. However, it was not until the involvement of the Adjutant General of the North Dakota National Guard, Major General Haugen following the initial stages of Operation Iraqi Freedom, that this vision was transformed into a reality. MG Haugen and the UGPTI staff worked closely with J-4 of the Army and the Comptroller of the Army (Lieutenant Generals Christianson and Sinn) to develop this joint effort between the Department of Defense, numerous colleges inside NDSU and the Upper Great Plains Transportation Institute. The first class of 17 students in the intensive 36-credit program will begin this fall.

The program is offered in collaboration with the U.S. Army Logistical Management College in Fort Lee, VA. Students are selected by the Department of Defense and will develop advanced knowledge and research skills in the key areas of joint military logistics and transportation, advanced supply chain management, implementation of technology such as radio frequency identification tags, and the integration of homeland security and crisis analysis with military logistics.

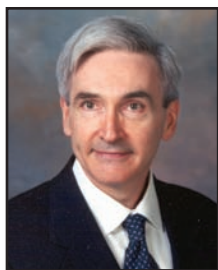
Kalk notes that Pennsylvania State University and the University of Tennessee also provide military logistics programs. “But NDSU’s is the only program that meets all 12 points of the national logistics curriculum outlined by the Army Logistical Management College.”

Over the next two years UGPTI staff will continue to refine and develop the program while developing communications channels with other agencies whose personnel might benefit from the program. Eventually, enrollment is expected to reach at least 30 students.

UGPTI is working with NDSU’s Center for Nanoscale Science and Engineering to explore the use of radio frequency identification (RFID) tags in transportation. “That collaboration creates a unique opportunity for our students,” Kalk says. “The experience they gain on RFID applications related to infrastructure, safety, security and operations will not be found anywhere else in the nation.”

Kalk has more than 20 years of experience with the U.S. Marine Corps including experience in transportation and logistics in Desert Storm, Bosnia, and Operation Iraqi Freedom. An academic coordinator has also been hired for the program. Jody Bohn has more than 21 years of experience in the U.S. Army in financial and human resources management and is also a veteran of Operation Iraqi Freedom. The director of the program will be Denver Tolliver, associate director of the UGPTI. He will guide the interdisciplinary team of faculty with academic and research expertise ranging from business and economics to civil engineering.

For more information, see [www.ugpti.org/mml/](http://www.ugpti.org/mml/)



Denver Tolliver



Brian Kalk



Jody Bohn



## Associate's Degree Program Launched with Bismarck State College



Jon Mielke

A cooperative effort involving UGPTI, NDSU and Bismarck State College has resulted in the creation of a new associate's degree in transportation and supply chain management at Bismarck State College.

The program will help satisfy local and state demands for skilled transportation workers and give students fundamental skills for a career that offers good pay and potential for advancement. In addition, graduates from the program could pursue a related four-year degree at NDSU.

"Transportation and supply chain management are key factors in the competitiveness of firms today," says Jon Mielke, an instructor in the program and research associate with the UGPTI. "Growing firms and industries in our region are looking for individuals with skills in those areas to help them remain or become competitive in a world-wide marketplace."

In endorsing the program, North Dakota Governor John Hoeven said, "Transportation is critical to North Dakota's economic development efforts and the continued growth and diversification of our economy. As we capitalize on new opportunities for North Dakota industries and businesses, it is important that we have a trained workforce ready to meet our future transportation needs and challenges. I commend Bismarck State College, North Dakota State University and the Upper Great Plains Transportation Institute for working together to provide this quality program."

## Sang Moon is First Graduate from Ph.D. Program

Sang Young Moon is the first student to graduate from NDSU's Transportation and Logistics Ph.D. program. Moon earned his M.S. in agribusiness and applied economics from NDSU in 2002. He received his B.S. in agriculture economics from Korea University.

He began his Ph.D. program in September of 2002 with a concentration on transportation economics. His dissertation is "A Mathematical Model Applied to the U.S. Soybean Industry and Its Competitiveness." The research evaluated the impacts of alternative ocean and inland transportation systems on U.S. competitiveness of soybean exports and the world soybean trade. The results show that a free trade would positively affect the total soybean quantities traded in the world soybean market. The United States receives the most benefit under free trade mainly because export supply in the United States is much more elastic than those in Brazil and Argentina.

Moon hopes to find a position where he can continue research that will contribute to transportation policy decisions.

The Ph.D. program continues to grow; 21 students were in the program this spring and enrollment is at 23 for the fall semester.

(Ness continued)

in the White House, Washington, D.C., discussing the importance of commercial essential airline service to the central rural United States. This job is that varied and that's what I love about it."

He is past chair of the National Association of State Aviation Officials and recently served as president and chairman of the board of the Center for Aviation Research and Education, a non-profit educational foundation created to serve the needs of aviation research and education. Ness is the chairman of the North Dakota Aviation Hall of Fame.

He currently resides south of Bismarck with his wife Linda. His daughter Erin and husband Jason Ehlert live in West Fargo and daughter Lindsey is a senior at Jamestown College.

## Controller Interface Device Exhibited at Annual TRB Meeting

ATAC's Controller Interface Device (CID) was highlighted in January at the annual meeting of the Transportation Research Board, nation's largest meeting of transportation professionals. The Transportation Research Board (TRB) is a division of the National Research Council and its annual meeting draws more than 9,500 transportation professionals from around the world.

ATAC research fellow Shawn Birst, presented information on the CID at the Traffic Signal Systems Simulation Subcommittee. Members of that subcommittee had been discussing ways to improve how traffic signal operations are modeled in traffic simulation, including using "hardware-in-the-loop" approaches. Birst presented information on ATAC's CID and illustrated how the CID may be used to accurately model complex traffic signal operations in conjunction with the VISSIM traffic simulation model.

In addition, Birst and associate research fellow Jason Baker also demonstrated the CID at the TRB's exhibit hall. The device was featured by the Federal

Highway Administration in an exhibit also featuring its Adaptive Control Software (ASC) Lite initiative.

"This meeting represents the best of transportation research from around the world. Presenting and demonstrating the CID at TRB indicates how innovative and useful this approach is to traffic modelers," Birst says. The presentation and demonstrations were very well received by advanced simulation users and controller vendors who see value in the device for testing traffic controllers.

ATAC's CID was initially developed by students and is built using off-the-shelf technology. ATAC developed several software components to perfect the CID interface between simulation program and signal controller. The device is easy to set up and use, is relatively small, easy to upgrade and has Ethernet connectivity allowing users to run analysis using CID/controller combinations from virtually any location in the world. With this capability, ATAC is promoting a concept of a *virtual traffic lab* to allow collaboration among researcher and traffic engineers across the U.S.



Shawn Birst presents ATAC CID at the 2006 Transportation Research Board (TRB) meeting

## Dybing Named UTC Student of the Year



Alan Dybing

Alan Dybing was an excellent student, so when he finished coursework for his doctoral degree last year, the UGPTI hired him full time.

That decision was reaffirmed when Dybing was named 2005 Region VIII Student of the year at the Transportation Research Board annual meeting

in Washington in January. Each year, the United States Department of Transportation (USDOT) honors the most outstanding student from each participating University Transportation Center (UTC) for achievements and promise for future contributions to the transportation field. Students of the Year are selected based on their accomplishments in such areas as technical merit and research, academic performance, professionalism, and leadership. Each student receives a certificate from DOT and \$1,000 from the student's UTC.

Dybing's Mountain-Plains Consortium nomination was based on his thesis work focusing on estimating transportation demand generated by the production and marketing of agricultural commodities in the state. He also worked on MPC-funded projects designed to estimate truck trips generated by the state's grain elevators.

"The work will be useful in road planning to evaluate the draw of trucks to elevators based on the elevators' characteristics," Dybing explained. For example, larger elevators that ship on unit trains, draw significantly more traffic than small elevators. That traffic may also include larger and heavier trucks. "Our work will be a planning tool for state and local officials looking at road maintenance and improvements."

A native of Maddock, ND, Dybing came to NDSU 10 years ago to major in agricultural education and minor in agricultural economics. Once he earned his B.S. degree, he began work on his master's degree in agricultural economics with the transportation option, a program jointly administered by the Department of Agricultural and Applied Economics and the Transportation Institute.

Dybing was in the first class when NDSU launched its doctoral program in transportation and logistics in 2002.

## Griffin Receives TRF Whitten Award



Gene Griffin

UGPTI director Gene Griffin was awarded the Herbert O. Whitten TRF Service Award by the Transportation Research Forum. Griffin was honored at the TRF's 47th annual meeting March 23-25 at New York University.

The Whitten Award recognizes a TRF member who has made outstanding professional contributions to the Forum over a long period of time. Griffin is the ninth winner of the award in the Forum's 47-year history.

"This award is really a recognition of the excellent people I've worked with over the years at the UGPTI and within the TRF organization," Griffin said.

With more than 30 years of experience in transportation and logistics, Griffin has conducted research in economics, management, business logistics and public policy related to rail and motor transport, low-volume roads, economic development, rural transit, and agricultural transportation. He has served as director of the Upper Great Plains Transportation Institute since 1980.

During his tenure as director, the UGPTI gained national stature in its focus area of small urban and rural transportation and logistics. Griffin continues his involvement in research and has published numerous reports and journal articles.

Griffin also has served as executive director of the Transportation Research Forum since 2004 when the UGPTI became the administrative home to the TRF. 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.

## UGPTI Researchers Present at TRF Meeting

Several Upper Great Plains Transportation Institute researchers presented their research studies at the 47th Annual Transportation Research Forum March 23-25 at New York University.

The TRF is a professional transportation organization dedicated to providing an impartial forum for the exchange of ideas among practitioners, researchers and government officials regarding all aspects of transportation and logistics. The UGPTI is the administrative home of the Forum and its journal.



Dave Ripplinger

**David Ripplinger**, an associate research fellow with SURTC, discussed his findings on the use of intelligent transportation systems (ITS) in coordinating community transportation services. He examined the experiences of three organizations in planning, implementing and operating ITS to meet the mobility needs of their residents through improved coordination. His observations provide insights on the challenges of implementing the technology as well as the advantages offered by the innovations.



Brenda Lantz

**Brenda Lantz**, director of the Transportation Safety Systems Center, presented her research on reducing driver-related commercial vehicle crashes. The project integrated driver traffic conviction data into software designed to help officers select vehicles for safety inspections. The goal was to use the combined data to better identify high safety risk motor carriers.



Ayman Smadi

**Ayman Smadi**, director of the UGPTI's Advanced Traffic Analysis Center, chaired a panel discussion on transportation applications of radio frequency ID tags. Other panelists included Mark Berwick, director of UGPTI's Strategic Freight Analysis program; Mike Freitas, Intelligent Transportation Systems Joint Program Office of the U.S. Department of Transportation; and Alex Warner, Pedigree Technologies.



Kimberly Vachal

**Kimberly Vachal** presented research on the future of U.S. inland waterways. The analysis of traffic, barge firms, fleet investments, and prices provides insights into this industry and its future. She concluded that given the value of waterways in terms of transport capacity and modal competition, it is important decision-makers consider alternatives to strengthen waterways industries, and specifically the Mississippi River System, as a vital component in the multimodal transport system.



Tamara VanWechel

**Tamara VanWechel** also presented research on the willingness of rural agricultural producers to pay for improved rural roads for freight transportation. In the study, the issues that agricultural producers found important were improved road surface quality and increased load limits. Most respondents said they were willing to pay for these improvements.



Del Peterson

**Del Peterson**, an associate research fellow with SURTC, reviewed a study on the feasibility of commuter bus service between Wahpeton-Breckenridge and Fargo-Moorhead. Nearly 50 percent of commuters surveyed indicated they would use an "express" bus for their commute between Fargo-Moorhead and Wahpeton-Breckenridge. The biggest obstacle was concern over transportation back to Wahpeton-Breckenridge in the event of an emergency. The study determined the number of regular commuters between the Wahpeton-Breckenridge and Fargo-Moorhead metro areas, explored the willingness of commuters to utilize commuter bus service, determined what commuter bus service features were of utmost importance to travelers, and gauged the awareness of local commuters to commuter bus service and its features.

## Transportation Institute Holds 10th Annual Awards Banquet

Nearly 150 people gathered at the Ramada Plaza Suites Oct. 11, for the 10th Annual Upper Great Plains Transportation Institute Awards Banquet. Honorees were Dale Anderson and Senator Kent Conrad.

Anderson received the Institute's first Chairman's award in recognition of his contributions to transportation research, education, and outreach at NDSU, and contributions to the viability of the Upper Great Plains Transportation Institute.

Anderson was director of the UGPTI from 1972-1974 and is credited with establishing a stable base of staff and funding for the program. He served on the UGPTI advisory council representing the Greater North Dakota Association from 1997 to 2004. He served as chair of the council from 2000 to 2002.

"The Upper Great Plains Transportation Institute has become a very dear and valuable part of North Dakota," Anderson said. He described the tenuous nature of the Institute in its early years and complimented subsequent NDSU and Institute administrators for continuing to build and expand the Institute. "Research, education and information continue to be the foundation of your strong programs."

Senator Conrad received the Institute's highest award, the John M. Agrey Award, in recognition of his service to transportation in the region. The award is named for

John M. Agrey, a pioneering innovator and advocate for transportation in North Dakota.

"Transportation is one of the keys to the economic future of our state," Conrad said. "This award means a great deal to me." In introducing Conrad, NDSU President Joseph Chapman recognized his efforts in developing the recently-passed transportation bill. The bill includes more than \$8 million in funding for the Transportation Institute. The bulk of those funds will support the work of the Institute's Small Urban & Rural Transit Center and establish a rural transportation safety center.

While the legislation provides funding for key transportation projects across the state, Chapman said he was particularly pleased that it included funding to renovate 12th Ave. N. in Fargo, a project that will provide an attractive new entrance to campus.

Dave Sprynczynatyk, director of the NDDOT is chair of the UGPTI's advisory council. In his opening remarks, Sprynczynatyk said his colleagues around the country are quite envious of his department's relationship with NDSU and the Transportation Institute. "We are able to have the Institute's staff undertake a number of special studies we're not able to do internally. And perhaps more importantly, we're able to work with the Institute to attract young people into the transportation industry."

(Awards Banquet continued on page 14)



Gene Griffin, Senator Conrad, Dale Anderson, Dave Sprynczynatyk

(Awards Banquet continued)

Scholarship winners were also recognized at the banquet. The \$1,500 scholarships are funded by the Mountain-Plains Consortium through a grant from the U.S. Department of Transportation.

The Transportation Engineering Scholarship is awarded to students to recognize academic performance and interest in the area of transportation. Recipients were Molly Holleman and William Doerr. Holleman is a junior at NDSU from Benson, MN, pursuing a major in civil engineering. She is currently employed with UGPTI's DOT Support Center (DOTSC) as an engineering intern and works as an engineering intern during breaks in the school year with the Swift County Highway Department in Benson, MN. William Doerr, originally from Hettinger, ND, is a senior at NDSU pursuing a double major in civil and construction engineering. He is also an engineering intern with DOTSC.

The Paul E.R. Abrahamson Scholarship recognizes individuals demonstrating academic achievement and leadership as well as an interest in the areas of agricultural transportation and logistics. The scholarship is given in honor of Paul Abrahamson, a pioneer in the North Dakota Wheat Commission who served as its first administrator. Recipients were David Heinz and Chad Wegner. Heinz, a native of Cooperstown, ND, is a senior at NDSU in agricultural economics. Following graduation in May, Heinz plans to join his family's farm operation. Wegner, a native of Fargo, is a senior at NDSU in business administration. He plans to start his own firm as a marketing consultant specializing in new product distribution.



Molly Holleman



William Doerr



David Heinz



Chad Wegner

## New Staff at UGPTI



**Jason Baker** is an associate research fellow with ATAC. He began work with ATAC in 2002 as an undergraduate research assistant. Jason's main responsibilities will be in the areas of traffic operations and ITS. He has conducted research on advanced traffic data collection technologies including video, radar, tubes and others. Jason has been responsible for maintaining and operating ATAC's Traffic Data Collection System as well as providing training to local and state transportation agency staff on the use of the system. Jason received his bachelor's degree in civil engineering from North Dakota State University in 2003 and is currently pursuing a master's degree in the area of transportation.



**Gary Berreth** is an associate research fellow with the UGPTI and is directing the new Rural Transportation Safety and Security Center. Gary has more than 37 years of experience in transportation engineering with most of that experience at the NDDOT. Gary retired from NDDOT in 2005 as an administrative transportation engineer in the Office of Operations. In addition to his work with the Center, he is involved in the associate's degree program offered at Bismarck State College and is developing programs to enhance the Transportation Learning Network's technical education offerings on a regional basis for state departments of transportation.



**Jody Bohn** is the academic program coordinator for the UGPTI educational programs, including the newly developed Masters of Military Logistics. She has more than 21 years of experience in the U.S. Army in financial and human resources management. With UGPTI she will help assure that the Masters of Military Logistics program meets the life-long learning objectives for career military officers and civilians while providing a foundation in transportation and logistics that incorporates emerging technology. She will also serve as a liaison to military personnel, university administration, students, faculty and staff for all

educational programs within UGPTI. Additionally she will be involved in student recruitment, retention, and marketing of the Institute's educational programs.



**Brian Kalk** is program manager of the Masters of Military Logistics (MML) program. Brian has more than 20 years of experience in the U.S. Marine Corps. He served as a current operations officer in a transportation support group in Operation Iraqi Freedom and served as logistics officer for various units. He is assisting with the coordination and execution of the MML program. He will be involved in planning, program refinement, and marketing. Additionally, Brian will instruct a variety of courses within the program; coordinate with federal, state and local transportation agencies; and work with staff on funding, budgeting, administrative and organizational aspects of the program.



**Alan Dybing** is an associate research fellow with UGPTI. He is applying the Highway Economic Requirements System (HERS) to North Dakota highways. The FHWA developed the planning software more than a decade ago to help assess the nation's highway system. Alan is helping develop features that will allow NDDOT and other agencies to use it. 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. A native of Maddock, ND, Dybing came to NDSU 10 years ago to major in agricultural education and minor in agricultural economics. Once he earned his B.S. degree, he began work on his master's degree in agricultural economics with the transportation option. His thesis focused on estimating transportation demand generated by the production and marketing of agricultural commodities in North Dakota. He is continuing to work on his Ph.D.

(New Staff continued on back page)

(New Staff continued)

**Sue Hendrickson** is a project coordinator working with SURTC and the Transportation Research Forum. Sue spent the past 27 years at NDSU working in secretarial, information processing and information technology positions. The past 12 years were spent with the Agriculture Communication department in the computer services unit.

**Joan Lobato** is a project coordinator with the Transportation Safety Systems Center. She has more than 20 years of experience in the research, analysis, system design and quality assurance areas of software development. Within TSSC, her primary focus will be on developing project plans, tracking project status and documenting new requirements. She is also responsible for providing quality assurance objectives and performing software testing for investigative software applications developed by TSSC.

**Sue Roberts** is a senior technical writer and test engineer with the Transportation Safety Systems Center. She is primarily responsible for the documentation of all the Center's applications. She is also responsible for internal requirements documentation and testing the Center's web-based applications.

