

Contents

Adopt-A-Highway Program	2
Short Line Railroads	3
Web Communications Manager	3
Strategic Freight Program	4
Agrey Award to Dorgan	5
MPC Site Visit	6
Chi Joins UGPTI	7
Hegland Joins SURTC	7
New Space for ATAC	8

UGPTI hosts national forum on linkages

The consensus is clear – those who attended the Upper Great Plains Transportation Institute’s National Forum on Agriculture and Transportation Linkages May 17-18 left the conference committed to working hard for passage of TEA-21 and finding ways to make transportation more effective, efficient and productive.

From Alameda East to New York streets, from the Canadian border to Mexico, issues assessing the importance of transportation to major industrial sectors of the U.S. economy were addressed.

U.S. Sen. Kent Conrad, introduced by NDDOT Director Dave Sprynczynatyk, is immediate past chairman of the Senate Budget Committee. Conrad’s roots in representing an agricultural state and in studying international markets, make him an empathetic spokesman for what he called hard times in the heartland as well as hard times in the cities and towns that service those farms.

On the international scene, Conrad recounted how the Europeans provide more than \$300 per acre of support to farmers and the U.S. provides \$38. The American farmer has to market against not only farmers but to other

governments giving great support to agriculture.

Agriculture products, as many forum speakers pointed out, have to be transported to market. Steve Fuller talked about a study that showed for every one dollar of agricultural output, 15 cents of transportation expense is required. Jim Dunn cited a DOT study showing 14 percent of the trucks hauling goods in this country handle agricultural goods or food.

The linkage between agriculture and transportation, Conrad noted, is both vital and clear. Whether truck, rail or ship, the transportation infrastructure and industry must be prepared for U.S. agriculture to succeed, indeed not lose ground to the Europeans.

Gridlock costs money and quality, whether in delivery to congested cities or at shipping points. Conrad urged forum participants to not be shy about trying to influence policy outcomes for agriculture and transportation in support of transportation dollars.

John Horsley, AASHTO, echoed Conrad’s call to Congress. Horsley said AASHTO adopted a

(Forum cont. on page 8)

Internship leads to automating Adopt-A-Highway program

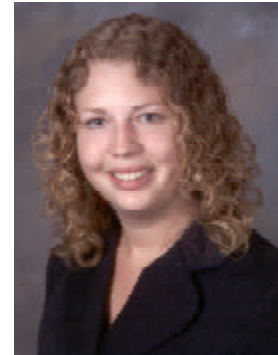
Kellee Kruse gets the credit for creating a program organizing North Dakota's Adopt-A-Highway program for the Department of Transportation. What was once a bit difficult to track is now on-track thanks to Kruse's work as an undergrad intern with the DOT.

She is among the first interns with the Department of Transportation Support Center recently established with the Upper Great Plains Transportation Institute. Now a research assistant with UGPTI, one of her assignments is supervising interns.

Her work with small database systems is what led her to the Adopt-A-Highway project. Adopt-A-Highway helps communities and the state make a good impression through a community involvement program. The program brings citizen volunteers together to keep roadsides clean, and educates and encourages people to stop littering and care about the environment. Since there are no federal dollars to fund litter clean-up, Adopt-A-Highway is critical.

Kruse automated the Adopt-A-Highway program, matching signs, highways and volunteer groups on a database. This information technology link means the DOT can keep track of what areas need coverage and what groups are available. It also means the signs thanking the volunteers are up-to-date – a good public relations tool for the DOT.

She calls her internship opportunity perfect because she received class credit, real-life assignments and had mentors who helped her along the way. Kruse expects to keep internship opportunities as valuable for current interns, as she



found, through the guidance of Dennis Jacobson, DOTSC director. Positive word of mouth about the DOT intern program is spreading on the North Dakota State University campus.

Susan Reule, one of Kruse's DOT mentors, is pleased with how the new program works. She wants travelers in the state to have a good impression.

Kruse has research interests in transportation maintenance management, geographical information systems, global positioning and workforce productivity.

She earned her bachelor's degree in May in management information systems. She plans to begin a master's degree program in business administration next fall.

Short line railroads benefit shippers

Short line railroads show large benefits to U.S. shippers, local communities and states. But short lines also face threatening financial challenges. Upper Great Plains Transportation Institute researchers John Bitzan, Denver Tolliver and Douglas Benson just published *Small Railroads – Investment Needs, Financial Options and Public Benefits (Report DP-145)*.

Short lines account for 29 percent of all rail miles operated, 12 percent of all U.S. railroad employees and 9 percent of all U.S. railroad freight revenues. Although accounting for a small portion of U.S. freight revenues, short lines serve as important feeders into the nation's large Class I railroads. This study estimates that nearly 14,000 U.S. Shippers rely on short lines for access to the U.S. Railroad Network.

In reviewing previous studies that examined the capital investment needs of small railroads, the authors find that the emerging needs as a result of an industry switch to larger rail cars are likely to be substantial. Moreover, it is apparent that some short lines may have difficulty in financing these needs.

In examining the ability of short lines to obtain financing to meet these capital investment needs, the authors find several potential problems, including:

- Few major banks have a specialization in small railroad financing.
- There is not good public information regarding small railroads, presenting a potential barrier to bank financing.
- Small railroads are offered short financing terms (5 to 8 years) for financing track and bridge improvements.
- There is some unwillingness by banks to make loans for track and bridge improvements because of an inability to liquidate these assets.

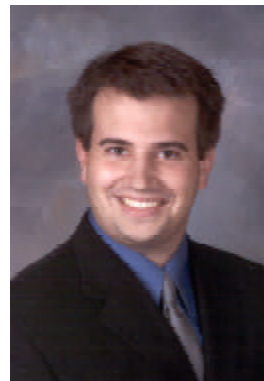
On the positive side, the authors find:

- Banks are interested in taking on more small railroad loans.
- Four of the six banks surveyed do not require large minimums for loans to short line railroads.

The study also finds important benefits conferred by short lines, including: continued access to the U.S. railroad network for lines that may not be viable under Class I ownership, and the resulting benefits of lower transportation costs, lower highway maintenance costs, safety benefits, and fuel efficiency savings.

To find out more from the study, contact the Upper Great Plains Transportation Institute, www.ugpti.org.

Nichols joins UGPTI as Web Manager



With more than two years of experience in Web communications, Patrick Nichols is now the Web communications manager for the Upper Great Plains Transportation Institute. Nichols will work on his master's degree at the same time he focuses on improving the day-to-day operation of UGPTI's Web sites. He is also developing new ways to communicate with the Institute's Web users.

His research interests include Web accessibility issues with the disabled and developing interactive multimedia. Nichols is working on a database driven Web site for the Department of Transportation Support Center at North Dakota State University and the North Dakota Department of Transportation. He will develop the rural ITS Tool-kit CD-ROM for the Small Urban & Rural Transit Center.

Previous to coming to UGPTI, Nichols was the Web designer and maintainer at the Minnesota State University Moorhead Bookstore. In his spare time, he works on Web design and builds CD-ROMs.

He holds a bachelor's degree in graphic communications with a minor in computer information systems, which he earned in 2001.

Strategic freight analysis program for North Dakota

North Dakota can be proactive and make decisions regarding the nature of the evolving transportation environment, or the state can let decisions be made for them. North Dakota needs to be the master of its own destiny, to the extent possible, in the evolution of the transportation system that serves manufacturing, agricultural production and processing.

The Biennial North Dakota Strategic Freight Analysis Program focuses on important areas in transportation for the state. This goal of the project is to gather information and data for the decision makers in the state. For this biennium there are six topic areas and are concentrated on manufacturers, processors and specialty agriculture producers.

The aim of this project is threefold:

1) Strengthen the North Dakota manufacturing sector by advancing a competitive advantage through the application of supply chain management and business logistics. 2) Provide the information and analysis necessary to establish a viable intermodal container freight facility to serve all North Dakota businesses. 3) Improve public policy by providing industry leaders and public policy makers with a better understanding of industry transportation and logistical needs.

Below is the keys to developing an intermodal facility in North Dakota, based on research findings of sections 1 and 5 of the project. As of the time of this report the other 3 sections have yet to be completed.

Keys to Developing an Intermodal Facility In North Dakota

Many parties have expressed a strong interest in developing a highway/rail intermodal container transportation facility. The development of a successful facility will require someone or an entity to take a strong leadership role. It will also require a cooperative effort among federal, state, and local government, economic develop-

ment groups, railroads and other transportation companies, manufacturers and specialty agricultural producers. This effort may include such actions as:

1. Pursuing state enabling legislation allowing for creation of a port authority for communities and regions
 - Bonding authority
 - Power to tax
2. State legislation allowing joint state/local funding cooperation for non-highway components
 - Start-up grant from state or federal sources
 - Low-interest loans
3. Local community support for the creation of a diversified shipping/business model
4. Commitments and Cooperative Effort
 - Commitment of rail carriers for rates and service
 - Commitment of a jurisdiction (city, state, county and rail)
 - Cooperation among states and provinces
 - Commitments from shippers and third party transportation providers
5. Specific site analysis
 - Business plan
 - Engineering plan
6. Creation of an outreach program educating shippers about intermodal transportation using an internship program and other educational methods

Agrey Award presented to Sen. Byron Dorgan

North Dakota has more miles of road per capita than any other state in the nation and North Dakota Sen. Byron Dorgan has been on almost all of them. He's also dedicated himself to keeping transportation in the state on par with the rest of the nation, no small task with limited transportation dollars and 50 states seeking funding.

For his understanding of the critical needs and support of transportation, Dorgan received the John Agrey Award at the 7th annual Upper Great Plains Transportation Institute banquet Oct. 31. Dorgan was lauded by North Dakota State University President Joe Chapman as a tireless champion in bringing fairness to North Dakota.

Dorgan, who called the Agrey Award a wonderful recognition, talked about how for almost 2,000 years transportation stayed pretty much the same. People walked or ran, used beasts to carry goods and that was pretty much it. Then in the last two centuries, things really changed.

New modes of transportation took over from the cart and canoe. The need for innovation and research becomes more critical as we move rapidly into the 21st century. "Infrastructure was built to accommodate cars and trains much smaller than we operate now. Maintenance of the infrastructure is part of revitalizing rural America," Dorgan said.

He encouraged people to dream, especially students. The "Enchanted Highway" near Dorgan's hometown of Regent, N.D., is an example of one person dreaming. "He had a dream and he made it happen," he said when he spoke of Larry Walters, the builder of sculpture along the highway. "You can't just sit there. Make it happen."

Noting the students, some from North Dakota, some from thousands of miles away, Dorgan encouraged them to know how Hannibal and his Roman Legions traveled, how Lewis and

Clark explored, and to translate history into the future. He talked about how Chief Shalaka (Big White Wolf) and his wife, Yellow Corn, traveled as guests of Lewis and Clark to Washington, D.C. in 1806 to visit President Thomas Jefferson, and saw "roads as straight as gun barrels." They were not believed and were shunned by their tribe when they returned to what is now western North Dakota.

North Dakota has many straight roads and many that curve. Knowing how to make, maintain and improve those roads is part of the dynamic transportation arena Dorgan discussed.

He talked about the need for human capital, the students and other North Dakotans who will make transportation happen. The state and the country must have good transportation systems and infrastructure for the economy and democracy to succeed.

When Dorgan referred to the future being in good hands, he referred specifically to four young men who received scholarships. The Paul E.R. Abrahamson Agricultural Transportation and Logistics Scholarship was awarded to Scott Huso and Jeffrey Olson by Larry Lee, chairman of the North Dakota Wheat Commission. The Transportation Engineering Scholarship was awarded to Ryan Ackerman and Matthew Boncquet by Dave Sprynczynatyk, director of the North Dakota Department of Transportation.

Huso's interest in transportation first came through work as a Cargill ambassador and merchandiser. He was intrigued with the "a-to-b issues of reducing costs and getting profit back to farmers." Adding to those beliefs, Olson said, "I feel that transportation and logistics play a crucial role in today's business world. In my area of study and interest, grain marketing, this is especially true because it is a decent transportation system and good logistics that make the system work and may be the difference between unprofitable businesses and profitable businesses."

(Agrey Award cont. on page 6)

(Agrey Award cont. from page 5)

Boncquet is like many young people who are discovering the critical need for transportation professionals. “My interest in the area of transportation actually just recently became significant. I decided to go into civil engineering probably because of my father’s influence in construction. The first years of college, I was mostly interested in structures. However, after working as an intern on the Minneapolis Hiawatha light rail project, I realized that transportation is of great interest to me because it involves such a wide variety of aspects – anything from bridges to traffic control to airplanes to railroads in this wide area of study. I believe this is what is drawing me to transportation as an emphasis. I love the wide variety of areas that one can become involved in.”

What Boncquet says reinforces much of what Dorgan says about developing human capital and the value of investment in people, in transportation, in society. Sprynczynatyk noted the success of the DOT Support Center

operated with UGPTI at NDSU in finding and encouraging talented young people.

Dorgan, who aggressively supports the needs of North Dakota and rural America in surface transportation, railroads, transit and air travel, congratulated the university and its students, UGPTI and its researchers, and citizens of the state for creating and being leaders in transportation.

Dorgan was 26 when he became the youngest constitutional officer in North Dakota’s history, appointed State Tax Commissioner by Gov. Bill Guy. Dorgan thanked Guy, who sat in the audience with State Sen. Tim Mathern who nominated Dorgan for the Agrey Award. Dorgan was re-elected tax commissioner twice, then went to the House of Representatives for six terms and is in his second term in the Senate.

MPC Site Visit at NDSU

Each year, the MPC director, Denver Tolliver and the U.S. DOT liaison, Mr. William Evans, visit each of the four university campuses to assess the status and progress of MPC programs. This year, the NDSU site visit was conducted on November 20. During the visit, Mr. Evans was given a tour of the DOT Support Center and the ATAC facilities in Hastings Hall. The visit included presentations by UGPTI research faculty and a scheduled luncheon with the Transportation & Logistics doctoral students. Mr. Evans talked with the 6 doctoral candidates, collectively and individually. He was impressed with the backgrounds, capabilities, and diversity of the students. The six doctoral candidates are Junwook Chi, Alan Dybing, Heather Gibb, Weijung Huang, Sang Moon, and Napoleon Tiapo.

Ayman Smadi, NDSU’s MPC Coordinator said “The MPC site visits provide a great opportunity for NDSU faculty and students to share their research findings and learn about regional and national transportation issues.”

Junwook Chi joins UGPTI



When Junwook Chi came to the Upper Great Plains Transportation Institute this summer he immediately began work on his research interests in intermodal transportation and transportation economics.

An associate research fellow, Chi came to North Dakota State University with an honorable mention from the CAES Masters Awards program for his master's thesis: *Economic Costs and Optimal Control Strategies for Four Production Limiting Cattle Diseases*. During his graduate work he used various economic analyses to research his thesis.

He works with UGPTI researchers Mark Berwick and John Bitzan on the North Dakota Strategic Freight Analysis project as well as other research efforts.

Chi has completed a number of papers related to dairy cattle and economics, and has participated in seminars on those topics. While working on his master's degree he was a research assistant at the University of Guelph in Guelph, Ontario, Canada. He was a teaching assistant at Konkuk University in Korea during his undergraduate studies. Chi continues his studies at NDSU where he is working on his Ph.D.

A native of South Korea, he is fluent in Japanese, studying at the University of Tokyo, Japan.

Hegland joins new SURTC program



Gary Hegland has a personal history with the state's roads and moving goods to market. That's part of what drew him to the new Small Urban and Rural Transit Center at the Upper Great Plains Transportation Institute.

He earned both his bachelor and master of science degrees at NDSU in economics. After serving as a B-52 pilot in the Air Force he farmed and supplemented that with agricultural product sales. In 1998 he joined Job Service North Dakota and in June 2002 came to SURTC as an associate research fellow and assistant to Jill Hough, SURTC director.

Hegland served on the Devils Lakes, N.D., Chamber of Commerce and the Central Dakota Cattle Association. Roads, travel, vehicles or transportation were always a part of issues with his work in tourism, cattle shipment and people moving throughout the state. Roads are a big issue for farmers trying to move goods to market in the fall and spring, and, in turn, moving products to the farm for operations.

When he joined Job Service North Dakota, travel was an issue helping clients get to work and other destinations. All of these issues drew the New Rockford, N.D., native to the mission of SURTC.

Hegland focuses on rural transit systems. His background gives him insight into many transportation issues facing small urban and rural communities. He looks at the current and future impact of transit systems in North Dakota and the potential impact of transit systems for elderly, low income and handicapped residents.

ATAC occupies new space

The UGPTI's Advanced Traffic Analysis Center (ATAC) has occupied its new space at Hastings Hall. ATAC shares the lower level of Hastings Hall with the UGPTI's DOT Support Center. The move into the new space allows for about four times more square footage than was previously available. ATAC's Traffic Laboratory now has ample room for eight workstations and provides a central work area that facilitates group interaction.

The area also allows for a large training room with a capacity for up to 20 people which is connected to the equipment room containing the traffic signal controller hardware and data collection systems.

This new set up offers ATAC staff the opportunity to provide hands-on training right on site. Further, the new space provides three private offices for ATAC's full-time research staff as well as a common office which houses four graduate student research assistants.

The ATAC was established in 1998 as a technology support center to address mobility and safety problems in small to medium size communities through effective use of advanced analysis tools and advanced technology applications. The ATAC program areas include traffic operations, Intelligent Transportation Systems, travel demand modeling and transportation planning and training.

ATAC works with various national, regional and state transportation agencies, including the North Dakota and Minnesota transportation departments and the cities of Bismarck, Fargo, Grand Forks and Moorhead. For more information, visit ATAC's website at www.atacenter.org.

(Forum cont. from page 1)

proposal to ramp up to \$41 billion for the highway program in the next six years for the 50 states. He added that in overall focus, transportation funding must be effective, not pork barrel.

The complexity of issues discussed at the forum showed both significant acknowledgement of challenges and dedicated effort to finding solutions. Innovation, education, research and cooperation were all emphasized as tools to keep America's transportation and food supply en route.

Gene Griffin, director of UGPTI, put together the forum at the request of the American Association of State Highway and Transportation Officials, United States Department of Agriculture and United States Department of Transportation in cooperation with the Council of University Transportation Centers.

Proceedings, PowerPoint presentations and summaries from the forum will be available on the UGPTI Website: www.ugpti.org.