

MAY REPORT

May 7, 1990

A monthly report on transportation research, education, and information activities at the University of Minnesota

CENTER'S FIRST CONFERENCE DRAWS LARGE AUDIENCE

The Center's First Annual Transportation Research Conference on May 2-3 attracted over 300 people from a variety of organizations and modes of transportation. The conference helped fulfill one of the Center's primary goals -- bringing together transportation practitioners and researchers to share research findings and form relationships for future efforts. The opening session featured a keynote speech by University of Minnesota President **Nils Hasselmo**, who congratulated the Center for its efforts in creating a multi-disciplinary program that supplements the traditional departmental structure at the University. The conference also included over 60 presentations covering a wide range of topics; a luncheon presentation featuring **David Forkenbrock**, director of the University of Iowa's Public Policy Center, who spoke on the relationship between highway investments and economic development; and an expert panel discussion with representatives from the University and the public and private sectors. Conference highlights and additional information will be provided in the June *Monthly Report*.

RESEARCH DIRECTIONS SET FOR NEXT YEAR

The evaluation of the 33 research proposals received in response to the Center's second Request For Proposals has been completed. The peer review committee rated each proposal against the criteria that had been established by the Executive Committee. The Executive Committee reviewed these results and chose several projects for funding. In addition, the Minnesota Department of Transportation and the Regional Transit Board reviewed the research proposals and selected ones that met their criteria for funding. The end result is a research program for the 1990-91 year that totals slightly more than \$1 million. Key areas selected by the Executive Committee for Center funding were projects relating to transportation and the economy, advanced technology for traffic management, and emerging issue areas such as driving of the elderly, bicycle transportation, telecommunications, and intermodal transportation. Mn/DOT continued its interests in bridge and pavement research, and the RTB is considering projects related to alternative fuels and light rail transit. A complete list of projects will be available in June.

OFFICIALS FROM PENNSYLVANIA, MARYLAND, FHWA HEAR ABOUT U OF M RESEARCH

On April 17-19, representatives of the Maryland Department of Transportation, the Pennsylvania Department of Transportation, and the Federal Highway Administration visited Mn/DOT for a demonstration of Minnesota's *GuideStar* program. Mn/DOT Commissioner **Leonard Levine** and Deputy Commissioner **Doug Differt** welcomed the officials. Other Mn/DOT professionals, including Assistant Commissioner **Gene Ofstead** and **Dick Stehr**, director of metropolitan traffic management, demonstrated various aspects of Mn/DOT's freeway operations activities and led a tour of Mn/DOT's Traffic Management Center. Professor **Panos Michalopoulos** of the Department of Civil and Mineral Engineering demonstrated Autoscope™, a key element of the *GuideStar* program that has been patented by the University. The visit also included tours of the I-394 High Occupancy

Vehicle lane, Minneapolis parking garages, freeway call boxes, and the new accident investigation sites along the Twin Cities interstate system.

REGIONAL TRANSIT BOARD AND CTS WILL SPONSOR LRT PEER REVIEW PANEL

This June, the Regional Transit Board and Center for Transportation Studies will sponsor a peer review panel for the RTB's Light Rail Transit Coordination Plan. The coordination plan addresses several key institutional and organizational issues regarding LRT design, construction, ownership, operation, and implementation of LRT on a regional basis. The RTB and Center are working jointly to form a peer review panel consisting of rail experts from across the country who have been involved in the construction and operation of LRT systems. The panel will analyze and evaluate the proposed coordination plan and enter into a discussion with local participants. This planned peer review panel illustrates how the Center, through its many partnerships, can convene diverse groups to share knowledge and expertise and offer solutions for addressing local and regional transportation issues.

MN/DOT AND CENTER STUDY NEEDS FOR INFORMATION SERVICES

Providing transportation information and outreach is a key role of the Center. In 1988 the Center's Interim Advisory Committee recommended that CTS maintain library resources and offer information services. The Center has begun working with **Jerry Baldwin** of Mn/DOT's Information Services Section to define information service needs of the Center and its constituents and determine how the two organizations might cooperate to meet those needs. Mn/DOT's Information Services Section currently manages the region's most comprehensive transportation library and maintains close ties with other transportation libraries throughout the country through the activities of the Transportation Division of the Special Libraries Association. Baldwin has arranged for **Anne Engman**, an intern from the College of St. Catherine's Information Management Program, to conduct a study that will outline needs and potential directions. Initial thoughts include the use of computer terminals linking the Center with Mn/DOT's library and other sources of information, which would allow the Center to offer information services to faculty and students without maintaining a large collection of resources.

REPORT RELEASED ON CARGO PREFERENCE ACT

The Cargo Preference Act, which requires that at least 75 percent of U.S. overseas food aid be shipped on U.S. flag vessels, is bad policy and should be repealed. This is the conclusion of a report from the Minnesota Sea Grant titled *Cargo Preference Legislation, Agricultural Exports, and the Future of the Duluth-Superior Economy: A Legislative History and Economic Analysis*. The report was written by Professor **C. Ford Runge** of the Department of Agricultural and Applied Economics and **Charles S. Gitomer**, a graduate research assistant. The U.S. government passed the act in 1985 to guarantee maintenance of a seaworthy merchant fleet. Instead, the report states that by reducing competition, the act discouraged the merchant marine from investing in new technology and thus promoted its decline. The act has also harmed the economy of the Duluth-Superior area, according to the Sea Grant study. Copies of the report are available at no cost from Sea Grant at (612) 625-9288.

CORROSION RESEARCH MEETINGS

The Minnesota Department of Transportation is evaluating several commercial products that can be added to deicing salts for inhibiting rebar corrosion in concrete. **Rod Pletan** and **Ed Fleege** of Mn/DOT's maintenance office have asked the Center whether the University has expertise that might help these studies. **Drs. Iwao**

Iwasaki and Ji-Won Jang of the Mineral Resources Research Center have been invited to several meetings involving **George Cochran, Roger Olson, and Henry Gillis** of Mn/DOT's physical research office to discuss laboratory studies that might complement the field evaluations. Previous research that Iwasaki and Jang have conducted on bridge rebar corrosion may have application for highway deicing operations. A research project is being designed that will involve the University experts.

MN/DOT GROUP HEARS PRESENTATION ON QUALITY

Professor **P. George Benson** of Operations and Management Science made a presentation on quality to a Mn/DOT management group organized by **Tom Tiedemann** of Mn/DOT's Employee Development Office. Benson's two-hour presentation was titled "Methods for Quality Improvement." Earlier this year, Benson and Professor **Gary Scudder**, also of Operations Management, provided expert advice to a Mn/DOT task force on the allocation of human resources to geographic areas. A study by an MBA team at the Carlson School of Management was also conducted during winter quarter.

CTS SEMINARS

Last month's CTS seminars were also well attended. The Center's careers presentations featured **Natalio Diaz**, manager of the Transportation Division at the Metropolitan Council, on April 11, and **Dave Holt**, executive vice president of the Minnesota Asphalt Paving Association, on April 25. They told students of potential careers in transportation planning and infrastructure design. In a faculty seminar on April 5, Professor **Panos Michalopoulos** of the Department of Civil and Mineral Engineering discussed his "Machine Vision Demonstration Project." This project involves the testing of new machine vision technology patented by the University, called Autoscope™, in the I-394 corridor in Minneapolis. On April 19, Professor **John Nieber** of the Department of Agricultural Engineering spoke on "Monitoring Soil-Water Conditions Beneath Highway Pavements." His research is part of a larger effort by Mn/DOT to demonstrate the use of soil-water sensors for monitoring highway pavement conditions.

UPCOMING TRANSPORTATION EVENTS

If you have an event you would like publicized, please call the Center at (612) 626-1077.

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| May 7-9 | Second Midwest Regional Transit Conference and Expo, Minneapolis Hyatt Regency, Minneapolis. Contact Jan Hennings at (612) 338-7323. |
| May 8 | Minnesota Transit Laboratory International Workshop, Minneapolis Hyatt Regency, Minneapolis. Contact Jan Hennings at (612) 338-7323. |
| May 15 | Alternative Fuels Forum, Earle Brown Center, University of Minnesota, St. Paul Campus. Sponsored by the Regional Transit Board and CTS. Contact: Garneth Peterson of the RTB at (612) 229-2708. |
| May 16 | Joint Monthly Meeting of the Women's Transportation Seminar and North Central Section of the Institute of Transportation Engineers, Ramada Inn, Bloomington. Contact: Lisa Raduenz at (612) 929-1561 or Susan Buckley at (612) 370-0700. |
| May 17 | CTS Transportation Careers Series--transportation leaders speaking to U of M students on career opportunities. Terry Stone , Executive Director, Region Nine Development Commission, 12:20-1:10 |

p.m., 60 Hubert H. Humphrey Center, University of Minnesota, Minneapolis. Contact CTS at (612) 625-3019.

- May 23-25 Women's Transportation Seminar 1990 National Conference, "Critical Transportation Issues: Preparing for the 21st Century," L'Enfant Plaza Hotel, Washington, D.C. Contact: **Louise Morris**, WTS national secretary, (703) 256-5258.
- May 31 CTS Transportation Seminar: "Creep Phenomenon in Laterally Prestressed Timber Bridges" by Professor **Bruno Franck**, 12:15-1:15 p.m., 205 Civil and Mineral Engineering, University of Minnesota, Minneapolis. Open to the public. Contact CTS at (612) 625-3019.
- June 24-28 "Leading the Way," Joint Meeting of the American Association of Highway and Transportation Officials (AASHTO), District IV Institute of Transportation Engineers (ITE), and NCUTCD, Minneapolis Marriott City Center Hotel. Contact: **Tom Campbell** at (612) 296-1155.