

SEPTEMBER REPORT

1993 A monthly report on transportation research, education, and information activities at the University of Minnesota

DATE AND LOCATION SELECTED FOR FIFTH ANNUAL CONFERENCE

The Center's Fifth Annual Transportation Research Conference will be held May 12-13, 1994, at the Sheraton Park Place in Minneapolis. The decision to use the Sheraton, reached with the assistance of the CTS Council chairs, was based on the availability of facilities large enough to accommodate the conference, as well as the favorable comments received in this year's evaluations. Other more central sites considered by CTS either prefer hosting conferences that attract a larger number of overnight guests (the St. Paul Radisson), or are too small for the CTS conference (Hilton Metrodome, St. Paul Hotel). The spring meetings of the CTS Councils will be held at the Sheraton on the afternoon of Wednesday, May 11, and the annual CTS Advisory Board meeting will be held that evening. The Call for Presentations will be issued in the *October Report*.

OTHER CTS EVENTS SCHEDULED FOR 1993-94

In addition to the annual conference, the Center offers a number of events throughout the year to encourage communication and interaction between the University and the transportation community. The enclosed brochure announces Center events for the 1993-94 academic year—the Luncheon Speaker Series, the Faculty Seminar Series, the Transportation Careers Series, the Transportation Symposium Series, and Minnesota Technology Transfer (T²) Program Workshops. Dates and locations for the fall quarter events are listed in the enclosed fall calendar, as well as in the Upcoming Events section of each *Monthly Report*.

SHEF LANG CHAIRS EXECUTIVE COMMITTEE MEETING

The CTS Executive Committee held its first meeting of this fiscal year on August 17. This was also the first meeting chaired by **A. Scheffer Lang**, who was appointed for a two-year term beginning July 1. Other new members appointed by Vice President for Research **Anne Petersen** were **Mark Brenner**, associate dean of the Graduate School; **Lyndon Carlson**, state representative; **Gary Eikaas**, vice president, Wintz Companies; **Pete Fausch**, vice president, SRF, Inc.; and **Dottie Rietow**, chair, Metropolitan Council. In addition, **Jim Newland** was appointed as an ex officio member representing the CTS Council Coordinating Committee (see below), and **Francis Kulacki**, new dean of the Institute of Technology, has been invited. The Executive Committee approved the updated strategic plan *Center Directions*, and an annual work program and operating budget for this fiscal year. The committee also decided to make time in future meetings to have in-depth discussions on current transportation issues, which may involve invited experts.

CTS COUNCIL COORDINATING COMMITTEE FORMED

The six chairs of the CTS Councils meet periodically to discuss programs and issues they have in common. New Executive Committee chair **Shef Lang** (former chair of the Research Council on Transportation and the Economy) suggested that this group be formally represented on the Executive Committee, since the councils originate many of the programs and initiatives approved by the Executive Committee. This has led to the appointment of **Jim Newland** (former Education Council chair) to chair what has been named the Council

Coordinating Committee. The six council chairs who are members of this committee are **Dennis Carlson**, **Judy Hollander**, **Renee McGivern**, **Mike Robinson**, **Terry Stone**, and **Doug Weiszhaar**.

BICYCLE / PEDESTRIAN FRIENDLY DEVELOPMENT SEMINAR TO BE HELD IN HUTCHINSON

Earlier this year the city of Hutchinson teamed with the Minnesota Department of Transportation and the Finnish Road Administration (FinnRA) to initiate the design of a model community for walking, bicycling, and transit. Hutchinson, 60 miles west of the Twin Cities, was chosen because of its optimum conditions for a demonstration project of this type and its enthusiasm for the concept. As a result of this partnership, a seminar titled "Bicycle and Pedestrian Friendly Development" will be offered in Hutchinson on **October 18-19**. Cosponsored by the FHWA and CTS/Minnesota T², the seminar will feature informative presentations intended to raise awareness of the possibilities of bicycle and pedestrian friendly development. Speakers from Finland, the city of Hutchinson, Mn/DOT, FHWA, and Minnesota T² will share their expertise and involvement on a variety of issues. For registration information contact **Lori Graven** at (612) 625-9023; for program information contact Mn/DOT's **Greg Pates** at (612) 296-1650 or **Cheryl Plathe** at (612) 231-5497. FinnRA has had a cooperative relationship with Mn/DOT since 1991, and FinnRA representatives met with Minnesota T² staff earlier this year prior to forming their own T² center in Helsinki.

LOCAL ROAD RESEARCH BOARD HOLDS PROGRAMMING MEETING

The Local Road Research Board, chaired by **Mike Wagner** of Nicollet County, held its summer meeting on August 26-27 in the Twin Cities. The purpose of this summer meeting was to determine the following year's program, so the majority of the first day was filled with presentations by project proposers. The board selected four projects by University of Minnesota professors for funding in 1994. These projects include "Low-Vibration Methods of Soil Compaction for Urban Utilities" by **Raymond Sterling**, Underground Space Center; "Timber Bridge Inspection Program, Phase 2" by **Robert Seavey**, Forest Products; "Effect of Salt Additives on Concrete Degradation" by **Paul Weiblen**, Geology; and "Influence of Rural Road Quality on Vehicle Operating Costs" by **Jerry Fruin**, Agricultural and Applied Economics. On Friday, LRRB members toured the Traffic Management Center, where they discussed rural IVHS activities, and then completed their meeting with a visit to the Mn/ROAD site.

MINNESOTA TECHNOLOGY TRANSFER (T²) PROGRAM STEERING COMMITTEE MEETS

The Minnesota T² Program Steering Committee, chaired by **Dennis Carlson**, Mn/DOT State-Aid for Local Transportation division director and member of the Minnesota Local Road Research Board, met on August 23 to review the 1993 program accomplishments and to determine future program directions. The mission of the T² Program is to promote the transfer of transportation technology to Minnesota's local agencies. **Cheri Trenda**, T² program director, highlighted key 1993 accomplishments to date including over 15 workshops in road/street maintenance and traffic fundamentals; a statewide training needs assessment; and a new quarterly publication, *Technology Exchange*, which features local transportation innovations. Future directions of the Minnesota T² Program include expanded training for local engineering staff, coordinated training plans through integrated partnerships, and strengthened accessibility of local personnel to transportation information services and resources.

CARLSON SCHOOL, MN/DOT TEAM PROGRESSING ON IVHS/CVO STUDY

Professor **Frederick J. Beier** of Marketing and Logistics Management has been working with **Chuck Sanft** and **Cathy Erickson** of Mn/DOT's Truck and Economic Studies Section and a resource/steering committee of government and industry representatives on a study of Intelligent Vehicle/Highway Systems and Commercial Vehicle Operations (IVHS/CVO) institutional issues. The team is identifying institutional barriers to the adoption of electronic technologies in motor carrier regulatory transactions and estimating the benefits that would result from removing barriers and applying technology. The examination involves both regulators and carriers. Questionnaires were sent to a sample of 750 freight carriers in Minnesota, with a high (over 30 percent) response rate reported. The results are helping the team form conclusions about carrier capabilities and the willingness to use electronic technology for transactions with the state, possible benefits, and barriers. The one-year project will culminate in October with the issuance of a final report.

AVIATION RESEARCH GRANTS OFFERED FOR GRADUATE STUDENTS

Awards of \$6,000 for developing a research paper on public sector aviation issues will be made to up to seven graduate students under a program sponsored by the Federal Aviation Administration and administered by the Transportation Research Board. The Graduate Research Award Program, now in its eighth year, is motivated by the continuing need to attract gifted students to policy and management positions in the public sectors of aviation. Brochures and application forms have been sent to all U.S. graduate schools, and are available in Minnesota at CTS. Completed applications must be received by **November 1, 1993**, at the TRB.

PERSONAL RAPID TRANSIT WORKSHOP OFFERED IN CHICAGO AREA

A workshop titled "Introduction to Analysis and Planning of Personal Rapid Transit (PRT) Systems" will be held November 19-21 in Rosemont, Ill. The workshop is being sponsored by the University of Minnesota's Professional Development and Conference Services, CTS, and the Office of Research and Technology Transfer Administration, in cooperation with the Regional Transportation Authority (RTA) of Northeastern Illinois. As noted in the *August Report*, the RTA is funding the construction of a demonstration PRT project based on technology invented and owned by the University of Minnesota. Former mechanical engineering professor **J. Edward Anderson**, inventor of this system, is one of the workshop instructors. The course is designed to provide transportation engineers, urban planners, designers, and developers with information needed to evaluate PRT systems and to appreciate the implications of PRT for urban and other types of development. For further information or to obtain a brochure, please contact **Gordon J. Amundson** at (612) 625-3504; fax (612) 626-1632.

PROFESSOR GIVES LECTURE TOUR IN AUSTRALIA

Professor **Raymond Sterling**, director of the Underground Space Center, conducted a lecture tour of Australia last month as part of the 1993 Eminent Speaker Program of The Institution of Engineers, Australia (IEA). Sterling gave presentations in several cities during the tour, including a keynote address titled "The Expanding Role of Underground Facilities in Balancing Increases in Standards of Living with Environmental Preservation," at the Eighth Australian Tunnelling Conference, held in Sydney on August 24. He also spoke to the Melbourne and Brisbane chapters of the Australian Underground Construction and Tunnelling Association. Sterling is conducting several research projects for the LRRB this year on underground infrastructure issues.

FACULTY / STAFF ACTIVITIES

Papers by two CME professors were published in a special section on Advanced Traffic Management Systems in the July/August issue of the American Society of Civil Engineers (ASCE) *Journal of Transportation Engineering*. **Kostas Zografos**, **Teti Nathanail**, and Professor **Panos Michalopoulos** coauthored "Analytical

Framework for Minimizing Freeway-Incident Response Time"; Professor **Yorgos Stephanedes** and **Kai-Kuo Chang** wrote "Optimal Control of Freeway Corridors." **Shef Lang**, CTS Executive Committee chair, presented Professor **Fred Beier's** work on the "Analysis of Shortline Railroads Toward Building a Competitive Strategy" at the Sixth Annual Conference of the Minnesota Regional Railroads Association. In addition, **Laurie McGinnis** of CTS presented an overview of the Center and its programs. CME Professor **David Newcomb** attended the Pacific Rim Transtech Conference in Seattle during July 25-28, and answered questions at a Mn/ROAD display center in the convention center exhibit hall. Other conference participants from the University included Professors **Michalopoulos** and **Stephanedes**, and **Dick Braun** and **Dennis Foderberg** of CTS.

UPCOMING TRANSPORTATION EVENTS

If you wish to publicize an event, call **Pam Snoopl**, Center editor, at (612) 624-0841, or fax your announcement to (612) 625-6381. For other Center information, please call (612) 626-1077.

- Sept. 22 CTS Council Meetings: Environment Council, 8:30 - 10:30 a.m.; Infrastructure Council, 2:00 - 4:00 p.m., 780 Civil and Mineral Engineering. Contact CTS, (612) 626-1077.
- Sept. 23, "Federal & State D.O.T Regulatory Update on Commercial Vehicle Laws," Minnesota Safety Council,
Oct. 20 St. Paul. Call (612) 291-9150.
- Sept. 24 CTS Economy Council Meeting, 1:30 - 3:30 p.m., 780 Civil and Mineral Engineering. Contact CTS,
(612) 626-1077.
- Sept. 28 CTS Information/Outreach Council Meeting, 3:00 - 5:00 p.m., 780 Civil and Mineral Engineering.
Contact CTS, (612) 626-1077.
- Oct. 4 CTS Safety and Traffic Council Meeting, 2:00 - 4:00 p.m., 780 Civil and Mineral Engineering. Contact
CTS, (612) 626-1077.
- Oct. 13 "Transporting Passengers With Special Needs: A Coaching Program," Minnesota Safety Council, St.
Paul. Call (612) 291-9150.
- Oct. 18-19 "Bicycle and Pedestrian Friendly Development," Hutchinson, Minn. Sponsored by the city of Hutchinson,
Mn/DOT, FinnRA, with the FHWA and CTS/ Minnesota T². Contact **Lori Graven**, (612) 625-9023.
- Oct. 19 Negligent Entrustment and Your Drivers, Minnesota Safety Council, St. Paul. Call (612) 291-9150.
- Oct. 21 CTS Education Council Meeting, 9:30 - 12:30 a.m., 780 Civil and Mineral Engineering. Contact CTS,
(612) 626-1077.
- Nov. 2-4 GIS/LIS '93 Annual Conference & Exposition, Minneapolis Convention Center. Call (301) 493-0200.
- Nov. 7-10 "Transportation Management Systems: Achieving the Vision," a national conference on Integrating
Transportation Management Systems into Transportation Planning and Operations, Sheraton Music City
Hotel, Nashville. Sponsored by Vanderbilt University, with cosponsors including the FHWA, FTA,
AASHTO, ITE, and TRB. Call (615) 343-4991; fax (615) 322-3365.
- Nov. 9 "New D.O.T. Drug Testing Issues for Intrastate Drivers & Their Employers," Minnesota Safety Council,
St. Paul. Call (612) 291-9150.
- Nov. 17-19 U.S. Hot Mix Asphalt Conference, Atlanta Airport Hilton & Towers, Atlanta. Cosponsored by the
National Asphalt Pavement Association State Asphalt Pavement Associations. In Minnesota call MAPA,
(612) 636-4666; nationally call (301) 731-4748.
- Nov. 19-21 "Introduction to Analysis and Planning of Personal Rapid Transit Systems," Westin Hotel O'Hare,
Rosemont, Ill. A short course by the U of M's Professional Development and Conference Services, CTS,
and Office of Research and Technology Transfer Administration, in cooperation with the Regional
Transportation Authority of Northeastern Illinois. Contact **Gordon J. Amundson**, (612) 625-3504; fax
(612) 626-1632.
- Nov. 22-23 40th Annual Asphalt Conference, Northland Inn, Brooklyn Park, Minn. Sponsored by the Minnesota
Asphalt Pavement Association (MAPA). Call (612) 631-0156.