

University Transportation Center for Federal Region X at the University of Washington

Inside This Issue:

Student Conference	2
ITS WA Meeting	3
Regional News	3
TransNews	4

*Transportation Northwest
Regional Center
Newsletter*

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The Transportation Northwest Newsletter is published triannually by the TransNow Regional Center to inform readers about its research, educational, professional, and service activities.

Opinions expressed by the authors do not necessarily imply endorsement by the University of Washington or Washington State University, a TransNow Consortium partner.

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TransNow is Going Green!



TransNow is joining the green movement to contribute to sustainable transportation construction and operations. TransNow's theme areas will remain in traffic operations, freight operations & logistics, and infrastructure construction. However, new priority will be given to research projects that address green transportation construction and operations. This emphasis on sustainable transportation will encourage researchers to create projects whose outcomes not only benefit the transportation research field but the environment as well.

Beginning with the 2009 request for proposals (RFP), TransNow will give highest priority to proposals for new projects that include green research endeavors such as: (1) projects that investigate the impacts of proposed approaches to reduce the carbon footprint, or increase the sustainability of transportation systems; (2) projects that create new methods or inventions that promote the green operations, maintenance, preservation, and construction of transportation systems; and (3) projects that develop educational tools that promote green transportation.

New research project proposals are due at the beginning of March 2009. For more information about TransNow's new emphasis on green research as well as important updates on our revised local match requirements and submitting research proposals visit www.transnow.org/rfp/new/.

Conference Brings Region X Students Together

By Todd S. Merkens, WSDOT/TransNow Fellow

In November 2008, approximately 60 students gathered at the Seattle Campus of the University of Washington (UW) for the 2008 Region X Student Conference. The conference provided an opportunity for students from the region's University Transportation Centers (UTC) to gather, share, and discuss their work. As a new graduate student on temporary leave from my profession, this was my first opportunity to more widely participate on the academic side of transportation outside of traditional course work. Learning about the current research and academic focus of students from the UW and other regional universities was a highly informative and energizing experience.

What impressed me most about the conference was the diversity of research underway. Each presenter and poster highlighted a different perspective on the challenges facing the transportation engineering field. This diversity is reflected in how the transportation industry increasingly utilizes information technology and other new approaches to support multiple modes of travel and to maximize the most out of our transportation infrastructure.



Dr. Stephen Van Beek of the Eno Foundation provides the keynote address

Region X Student Conference

Continued from Page 1

I presented examples of my recent professional work in opening the high occupancy toll (HOT) lanes on Washington State Route 167. In introducing this new approach to managing our region's roadways, I focused on key lessons learned from the first six months of operation. It was highly rewarding to have the opportunity to share with my new colleagues some of the innovative work happening outside academia.

The student-run conference highlighted that benefits in partnering between members of the professional world and academia can be great. The ties and continued cooperation with these partners will be valuable in the future. Although the conference was only one day in the academic career of attendees, it left a lasting impression of the future progress in transportation systems. As current students follow their studies and passions they will add greatly to an evolving industry.

Todd S. Merkens is a Tolling Engineer with the Washington State Department of Transportation. He is attending a master's program at the UW as part of the WSDOT Fellowship Program. The Region X Student Conference is an annual event hosted by and for students. For more information on the 2008 conference, including copies of student presentations, the keynote address, and information on student awards, visit www.transnow.org/regionx/student-conference-2008/.



Region X transportation students attending the conference

Dear TransNow:

On behalf of the University of Washington Region X 2008 Student Conference Committee, we would like to thank you for supporting our conference. Nearly 60 students from six regional universities and colleges gathered to share and discuss their research and form lasting connections. In addition to the engaging panel discussion and a particularly noteworthy keynote address by the current Eno Foundation president, Dr. Stephen Van Beek, the students enjoyed 10 peer presentations and nearly 20 posters. Sustainability and the future of transportation were key themes of the conference – an appropriate focus in current times and relevant to the concerns and hopes of the student population. Organizing and preparing the conference has been a beneficial experience as well, allowing us to come together and tackle a new, challenging problem. We thank you for this opportunity to interact with fellow scholars, broaden our understanding of the transportation field, and hone our organization and leadership skills.

Sincerely,

*Jon Corey, Consolidation Chair
Yegor Malinovskiy, Publications Chair
Adam Parast, Outreach Chair
Kenneth Perrine, Technical Support Chair
Kelly Pitera, Program Chair
Oran Viriyincy, Activity Chair
Kari Watkins, Speaker Chair
Yao-Jan Wu, General Chair*



Price Armstrong presents the University of Oregon Bike Loan Program



Alaska



Idaho



Oregon



Washington

Regional News

Portland to Host Transportation Education Conference

Transportation faculty are invited to Portland, Oregon to discuss ways to improve undergraduate transportation engineering programs across the U.S. The Transportation Education Conference is June 22-24, 2009. Learn more about the conference at www.webs1.uidaho.edu/transportation_education_conference-2009/index.htm.

Annual Transportation Research Forum

The 50th Annual Transportation Research Forum will be held March 16-18, 2009 in Portland, Oregon. Conference themes include the environment, freight, and public transportation. For more information visit www.trforum.org/.

1st NWTC Request for Research Approach

The Northwest Transportation Consortium (NWTC), which includes the four state DOTs in Region X, has distributed its first Request for Research Approach (RRA). The topics are *Climate Change Impact Assessment for Surface Transportation in the Pacific Northwest and Alaska* and *Gathering Low ADT Highway Storm Water Quality Data*. Qualified researchers from the four Region X UTCs will propose collaborative projects that involve PIs from two or more UTCs. The NWTC award of \$100,000 will be equally matched by the selected UTCs. Responses are due in late February. Contact Tim Carlile (carlilt@wsdot.wa.gov) for general questions.

Region X Reception at TRB

On January 11, the Region X universities hosted a reception at TRB for faculty, students, and members of the transportation industry to foster networking opportunities for students, faculty, and professionals in the region. Thanks to the staff at OTREC for organizing this year's event.

PSU Student Wins Neville A. Parker Award

Zachary Horowitz's M.S. project report, "Freight Railroad Capacity Alternatives in the Pacific Northwest: An Analysis of Class I Cooperation in the Columbia River Gorge" won the Neville A. Parker Award for Outstanding Non-thesis Master's Degree Paper in Policy and Planning from the Council of University Transportation Centers (CUTC). Using OpenTrack he explored the potential benefits of a directional operating strategy in which BNSF Railway and Union Pacific rail road companies would combine their track and communication infrastructure. The results of the simulation model showed that the cooperative directional operating strategy has the potential to substantially increase capacity in the Columbia River corridor.



Zachary Horowitz

ITS Washington Annual Meeting is a Resource to Students

By Elyse Hanson, WSDOT/TransNow Intern

Every year, the Washington State chapter of the Intelligent Transportation Society (ITS) holds a meeting for engineers interested in Intelligent Transportation Systems (ITS) to discuss new innovative advances in the field of transportation. The November 2008 meeting, held at the Meydenbauer Center in Bellevue, addressed topics such as Regional Arterial Operations, Tolling and Congestion Management, Traveler Information Systems, Traffic Management Centers, Wired and Wireless Communications, Transit ITS Applications, and Bus Rapid Transit (BRT). A special lunch presentation from Sound Transit was also given on the newly passed transit proposition which allows funding for the expansion of the public transportation system in the Sound Transit District.

I attended several sessions including Tolling and Congestion management, Traveler Information Systems, Transit ITS Applications, and BRT. The tolling and congestion management session addressed High Occupancy Toll (HOT) lanes, which are HOV lanes that single occupancy vehicles can use by paying a toll. SR167 has a HOT lane pilot project that, if successful, will allow Washington to implement HOT lanes on other main highways and freeways.

Another interesting presentation, by the STAR lab at the UW, addressed traffic tracking using Bluetooth technology. Researchers are using Bluetooth receiver antennas to obtain the Media Access Control (MAC) addresses of cell phones at various locations on a desired road. These MAC addresses are then matched between the locations to determine the travel time between the two points.



Yegor Malinovskiy, UW STAR lab

I also found the Bus Rapid Transit technology presentation on upcoming projects in Washington State to be very informative. BRT is a popular new mode of transit that combines the efficiency and appeal of light rail with the flexibility and low cost of buses. Representatives from King County Metro and Community Transit shared about the new systems coming to the area: Metro Rapid Ride and Community Transit Swift. The Metro Rapid Ride system

Continued on Page 4

ITS Meeting

Continued from Page 3

will be established along the Pacific Highway and the Bellevue/Redmond Corridor and connect with the Swift system at the Aurora Transit Center. The Swift route will continue along SR99 from Aurora to Everett. With these new systems there is no need for traditional time tables because service is frequent with hybrid electric buses. Within the new Swift system, stations will have off-board fare collection to expedite travel.

Overall, the meeting was a great resource for expanding my knowledge of ITS technology and how it benefits Washington State transportation systems.

Update Your Info

TransNow is in an ongoing effort to update our contacts database. Please notify us as your contact information changes by visiting <http://www.transnow.org/about/contact-us/>. You can also opt out of our mailing list if you no longer want to receive TransNow information or publications.

TransNews

Student of the Year is Kari Watkins

Congratulations to Kari Watkins, a PhD student at the UW, for receiving the honor of 2008 CUTC Student of the Year. Kari was awarded for her excellence in academic achievement and dedication to the local transportation community. In addition to receiving a \$1000 award from TransNow, Kari was recognized at the annual CUTC awards banquet held in conjunction with the Annual TRB Meeting in Washington, DC.

New TransNow Dissertations and Theses Web Page

Visit our new Dissertations and Theses web page at www.transnow.org/education/dissertations-and-theses/index.php to browse graduate transportation student papers who have received support through our education program. Information is updated quarterly and is based on findings in the UW Engineering Library.

WTS Awards TransNow Students

The Women's Transportation Seminar Puget Sound Chapter awarded two UW students \$4000 each. Chilan Ta, a graduate student in transportation engineering and RA for Prof. Goodchild, received the Shawna Mulhall Memorial Scholarship. Basma Aziz Makari, a graduate student in transportation engineering and WSDOT fellow, received the Helene M. Overly Memorial Scholarship. TransNow matched each award with an additional \$2400. Congratulations, ladies!

Transportation Students Party

Mark your calendars! On Friday, February 27, TransNow is hosting a pizza and bowling party for UW transportation students and faculty. All students, faculty, and CEE staff are welcome to join us for free food and recreation from 12-1:30pm at the HUB games area.