**OREGON MODELING STEERING COMMITTEE**
**ODOT Human Resource Center, 2775 19th Street SE, Salem, OR**
**Wednesday, October 17, 2007**
**1:00 p.m.-4:00 p.m.**

# MINUTES

## ATTENDANCE

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| Bill Upton, Chair | OR Department of Transportation |
| Richard Bjelland, Vice-chair | OR Department of Housing & Community Services |
| Scott Drumm | Port of Portland |
| Brian Dunn | OR Department of Transportation |
| Bud Reiff | Lane Council of Governments |
| Susan Payne | Lane Council of Governments |
| Ray Jackson | Mid-Willamette Valley Council of Governments |
| Mike Jaffe | Mid-Willamette Valley Council of Governments |
| Matt Hermen | Rogue Valley Council of Governments |
| **Guests** | |
| Lei Zhang | Oregon State University |
| Melissa Torgerson | OR Department of Housing & Community Services |

**INTRODUCTIONS** – Self-introductions.

## SUBCOMMITTEE REPORTS

### Professional Development Subcommittee – Ray Jackson, Chair

Bud Reiff gave the update for this subcommittee. Seventeen people attended the Modeling User Group meeting held on September 13. Presentations included work on using multi-class assignments in Washington County using community type as the factor, an overview of transit modeling in Visum, and a discussion of network path finding considerations when examining transit modeling results.

### Applications Subcommittee – Bud Reiff, Chair

Bud reported that the peer review of the Corvallis transportation model, based on JemnR, will be held October 30 in Salem. ODOT will provide documentation regarding the model so that the peer review panel can review the information prior to the meeting. Future model peer reviews will be held for the Bend and Rogue Valley area models which are currently under development.

### Modeling Program Coordination (MPC) – Dick Walker, Chair

No Report.

## PROGRAM UPDATES

### OR Household Activity Survey (OHAS)

Bill Upton provided a status report on the OHAS project. The biggest issue to address right now is the increase of start-up costs from the initial estimate of $300,000 to $600,000. The new estimate includes several requests that were made during the kick-off meeting that was held in the summer. The OMSC OHAS Subcommittee will meet in November to prioritize the items on the start-up list and to reduce the cost to an affordable level.

Negotiations are ongoing with the Attorney General's office regarding the OHAS consultant contracts. As soon as contract issues are resolved, the Subcommittee will meet with the consultant team to discuss start-up costs.

### OR Statewide Model

Bill discussed the current status of the Statewide Transitional Model. The consultant team has completed "Stage 2" calibration and is now working on "Stage 3". This stage runs the model through all modules through time, making sure that everything is passed between modules and that the numbers are reasonable.

The scheduled date for delivery of the Transitional Model is January 31, 2008. This will allow ODOT time to become familiar with the model and perform sensitivity testing before using the model on applications later in the spring. The work on integrating the Transitional Model with the MPO models was placed on hold until the Transitional Model is fully functioning. The integration project will resume probably in the summer of 2008. A better name for the Transitional Model is also being discussed.

### OR Transportation Research & Education Consortium (OTREC) Board of Advisors

OTREC invited the OMSC to be a member of the OTREC Board of Advisors. This is a positive recognition of the partnership between OTREC and the OMSC and will provide the OMSC with a direct voice into the research and direction that OTREC pursues in the future. The OMSC Chair will serve on the Board of Advisors.

### 2008 Conferences

Bill mentioned that a number of transportation conferences will be held in Oregon next year. These include:

- Northwest Transportation Conference, Corvallis, February 5-7, 2008 (http://kiewit.oregonstate.edu/nwtc/)
- Fifth Oregon Symposium on Integrated Land Use-Transport Models, Portland, June 19-20, 2008
- TRB Innovations in Transportation Modeling, Portland, June 22-24, 2008
- Transportation Planning for Small to Medium Cities Conference, Portland, September 17-19, 2008 (www.toolsofthetrade.org)

## CO-EVOLUTION OF TRANSPORTATION AND LAND USE RESEARCH

Lei Zhang, Assistant Professor, Department of Civil, Construction and Environmental Engineering at Oregon State University (OSU), gave a presentation on his co-evolution of transportation and land use research The purpose of the research is to:

- Develop models of land use-transportation co-evolution for urban/regional planning
- Develop theories and models of travel and spatial behavior with an emphasis on learning and adaptation
- Understand the evolution of urban/regional systems, and its impact on the economy, society, and environment
- Analyze transportation, land use, energy, and sustainability policies

General findings from the research include:

- Transportation and land use decisions can have profound impacts on each other and on livability, social equity, and the environment.
- Continuous highway investment (public or private) is not a sustainable solution to urban transportation problems.
- Planning decisions often have different impacts on various population groups (by income, location, gender etc.), suggesting context sensitive solutions.

Related ongoing research includes:

- Land use and transportation network growth without freeway capacity expansion (OTREC)
- Social and economic impact of Oregon's distance-based mileage fee (ODOT and OTREC)
- Freight performance measures and probabilistic multimodal investment criteria for Oregon (ODOT)
- Welfare and financial impact of private-sector investment in transportation networks (Kiewit)
- Modeling learning and adaptive behavior for activity- and agent-based travel demand models using advanced survey data (OSU)
- Land use and economic impact of capacity investment (Proposed SHRPII Project)

A copy of Dr. Zhang's presentation is available on the OMSC website at http://www.oregon.gov/ODOT/TD/TP/OMSC.shtml.

Dr. Zhang stated that an **I**nterdisciplinary **TR**ansportation **A**nalysis and **M**odeling (iTram) research group has been formed in the OSU School of Civil and Construction Engineering. The mission of iTram is to promote and employ interdisciplinary approaches to conduct research on the relationships between transportation, land use, and natural resources, modeling urban/regional system dynamics and analyzing the full impact of engineering/planning decisions to ensure efficient resource allocation and sustainable development in the broad domain of transportation. Information on iTram can be found at http://web.engr.oregonstate.edu/~zhangle/iTram.

## OMSC RESEARCH INTERESTS & OPPORTUNITIES

Bud Reiff led a discussion on areas of research interest to the OMSC and opportunities for funding these topics either through ODOT Research or OTREC grants. Dr. Zhang suggested that the OMSC develop and maintain an on-going list of research ideas that is updated at least annually. This list can be consulted when projects are solicited by the ODOT Research Unit and OTREC or when new funding or in-kind staff resources are made available. Bud offered to have the Applications Subcommittee initiate and maintain this list for OMSC.

The following research ideas and projects were discussed:

- The Salem area has a plethora of new traffic data. Many signal controllers are now equipped with hardware and software to transmit vehicle classification counts to a central location. There are also GPS travel time runs for many of the major corridors. Mid- Willamette Valley COG would like to know how best to store, analyze, and apply these data.
- RVCOG would like new research into the effects of residential, commercial, and employment density on transit ridership.
- OMSC members would like more research into metropolitan freight planning.
- There is interest in research into the area of model route choice and dynamic assignment techniques. LCOG is interested in research into multi-level assignment models, where the equilibrium/deterministic regional assignment is supplemented by corridor-specific 'mesoscopic' simulation. 'Mesoscopic' is planning-level simulation that takes into account elements such as dynamic loading of the network, queuing, intersection capacity, difficult site access conditions, and conflicts between pedestrian, bike, bus, auto, and truck modes, but which can be accomplished in a more simplified manner without the immense data requirements and time needed to prepare an engineering-level microsimulation.
- There is interest in research into decision support systems which can use model output and other data and apply objective criteria and evaluation tools for project and policy analysis that can be more useful to decision-makers.
- Metro and LCOG intend to use data from PSU Professor Jennifer Dill's current research into bicycle use and route choice in Portland to develop improvements to mode choice and route choice models for the bike mode. A Metro Councilor may commit funds to this research, and those funds could potentially be leveraged on a 1:1 basis with OTREC or ODOT federal funding.

## OTHER ISSUES/AGENDA TOPICS

Bill reminded OMSC members that the 2008 OMSC meeting dates are January 23, April 16, July 16, and October 15. The January meeting was changed to avoid conflict with the TRB Annual Meeting.

## NEXT MEETING/AGENDA

The next quarterly OMSC meeting will be on Wednesday, January 23, 2008, from 1:00-4:00 p.m. in Salem. Agenda items include:

- Subcommittee Reports
  - Applications - Reiff
  - Modeling Program Coordination – Walker
  - Professional Development - Jackson
- Program Updates
  - Oregon Household Activity Survey – Upton
  - Transitional Model – Upton

The meeting adjourned at 4:00 p.m.

## MEETING HANDOUTS/REFERENCES

The following handout materials or links were provided at the OMSC meeting. For copies or more information, please contact the link provided or email Michal Wert at mwert@teleport.com:

- Information on the Northwest Transportation Conference, to be held in Corvallis, OR on February 5-7, 2008 is available at http://Kiewit.oregonstate.edu/nwtc
- Information on the Transportation Planning for Small to Medium Cities Conference, to be held in Portland, OR on September 17-19, 2008, is available at www.toolsofthetrade.org
- Lei Zhang's slide presentation can be accessed on the OMSC website at http://www.oregon.gov/ODOT/TD/TP/OMSC.shtml.
- Information on the **I**nterdisciplinary **TR**ansportation **A**nalysis and **M**odeling (iTram) research group in the School of Civil and Construction Engineering at OSU is available at http://web.engr.oregonstate.edu/~zhangle/iTram.