OREGON MODELING STEERING COMMITTEE
LONG-RANGE STRATEGY SUBCOMMITTEE
2004 ANNUAL REPORT

This report summarizes the activities and accomplishments completed in calendar year 2004 to accomplish the mission of the Oregon Modeling Steering Committee (OMSC). It summarizes progress on the OMSC FY2004-2005 work program, which implements the five-year Strategic Implementation Plan completed in June 2002. These documents are available on the ODOT website at http://www.odot.state.or.us/tddtpau/modeling.html

MISSION STATEMENT

It is the mission of the Oregon Modeling Steering Committee to coordinate the land use-transportation modeling efforts of federal, state, regional and local agencies. It is the further mission to serve as a consensus forum and support group to improve the state-of-the-practice and promote state-of-the-art land use and transportation modeling in the state of Oregon. The Committee cooperates with the Transportation Modeling Users Group. Integration of land use, transportation and the economy is a major focus of the Committee.

MEMBERSHIP

The Oregon Modeling Steering Committee (OMSC) is composed of technical and policy representatives of the following organizations. For 2004, the following representatives were members of the OMSC:

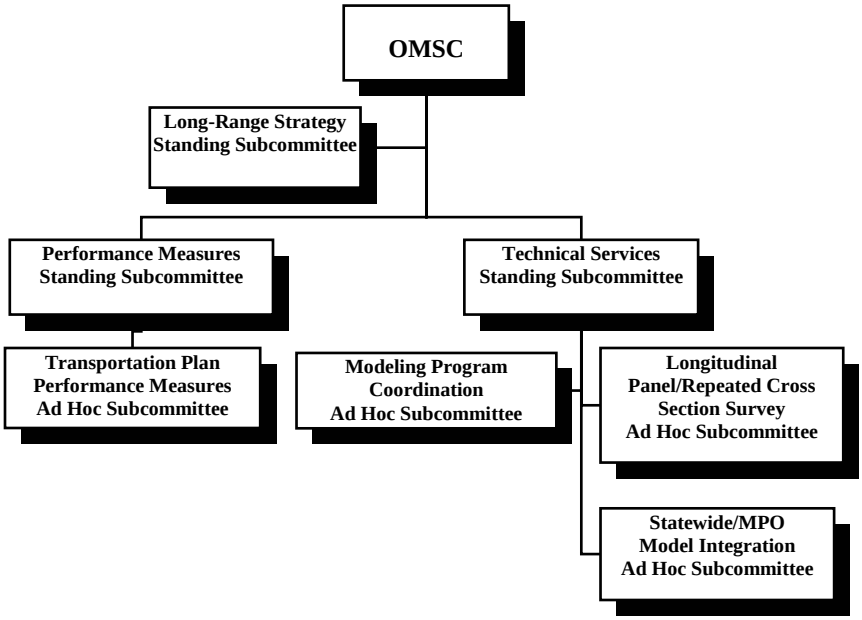
- OR Department of Administrative Services-Office of Economic Analysis (OEA) - Dae Baek/Tom Potiowsky
- OR Department of Economic and Community Development (OECDD) – John Gorlorwulu//Michael Burton
- OR Department of Environmental Quality (ODEQ) - Dave Nordberg/Annette Liebe
- OR Department of Housing and Community Development (OHCDD) - Richard Bjelland/David Foster
- OR Department of Land Use and Conservation (DLCD) - Bob Cortright
- OR Department of Transportation (ODOT) - Bill Upton/Jerri Bohard
- OR Governor's Economic Revitalization Team (GERT) - Sam Johnston/Gabrielle Schiffer
- Metro - Dick Walker/Keith Lawton
- Mid-Willamette Valley Council of Governments (MWVCOG) - Mike Jaffe/Richard Schmid
- Lane Council of Governments (LCOG) - Bud Reiff/Tom Schwetz

- Rogue Valley Council of Governments (RVCOG) - Craig Anderson/Dan Moore
- Corvallis Area Metropolitan Planning Organization (CAMPO) - Ali Bonakdar
- Southwest Washington Regional Transportation Council (RTC) - Shinwon Kim/ Dean Lookingbill
- Port of Portland (POP) – Scott Drumm/Susie Lahsene
- Federal Highway Administration (FHWA) – Kim Hoovestol/Fred Patron
- Portland State University (PSU) – Robert Bertini/James Strathman

Bend and Corvallis were designated MPOs in 2003. The Corvallis Area Metropolitan Planning Organization (MPO) joined the OMSC in 2004 and the Bend Area MPO was invited to join at the end of the year. Portland State University also joined the OMSC in 2004 following establishment of the Transportation Center.

ORGANIZATION

The OMSC completes its work through standing and special topic subcommittees and through broad discussions at quarterly meetings of the full committee (see following graphic). The OMSC met four times in 2004 – February 18, June 16, September 15 and December 15.



OMSC STANDING COMMITTEE ACCOMPLISHMENTS

Following are the accomplishments of the three standing committees.

Long-range Strategy – ***Dick Walker/Chair, Richard Bjelland/Vice-chair***
Purpose: Responsible for annual work planning, strategic activities and OMSC membership.

Annual Report and Work Planning
- The OMSC prepared an annual report of 2003 accomplishments to document implementation of the annual work program.
- A work program was prepared for FY 2004-05 that identified major efforts for the OMSC and identified special topic subcommittees needed to address specific topics.
- A copy of both plans are available on the ODOT website at http://www.odot.state.or.us/tddtpau/modeling.html
- The agenda and meeting format for the OMSC meetings were revised to focus at a higher policy level. Technical discussions will be held at the Modeling Program Coordination Subcommittee meetings.

Strategic Activities
- The OMSC submitted a letter of support for the PSU application for MTIP funding to develop a Permanent Freight Data Collection Infrastructure and Archive System for the Portland region.
- Review and updating of the OMSC mission, goals and objectives was initiated in 2004. This will be the topic of one or more meetings in 2005.

OMSC Outreach
- PB Consult represented Oregon at a peer review meeting sponsored by the US DOT Travel Model Improvement Program (TMIP) to discuss and share information on statewide modeling programs around the country. Information on this meeting can be accessed at http://tmip.fhwa.dot.gov/.

Membership
- PSU was invited to join the OMSC as it opened its Oregon Transportation Center. Additional information on the PSU program can be seen at www.cts.pdx.edu.
- In keeping with inviting all Oregon MPOs to participate as full members of the OMSC, invitations to join were extended to the Corvallis and Bend Area MPOs.
- Background materials and information were provided to several new members in 2004 – Rob Bertini/Jim Strathman, Portland State University; John Gorlorwulu, OR Department of Economic & Community Development; Ali Bonakdar, Corvallis Area MPO; Tyler Deke, Bend Area MPO.

Technical Services - ***Bill Upton/ODOT***
Purpose: Address technical model development, education, training and quality control.

Education and Training

- The OMSC first meeting in 2004 included a 2-hour discussion on the status of the Oregon statewide model and future development and implementation activities.
- Meetings were held of the Oregon Modeling Users Group and ODOT was encouraged to renew this as a regularly scheduled activity.
- The National Transportation Institute held a class on multi-modal model building.
- Freight Planning 101 was held in Boise and there was discussion on bringing this to Portland.

Model Development and Analysis

- The OMSC received regular updates on development of the Oregon statewide model. A transitional model (TM) will be operational in spring 2005. The primary difference between the TM and a full second-generation model is that the TM is an aggregate model and the second-generation model will be very disaggregated. They operate at different levels of complexity in their abilities to drill down into the information and provide answers. A comparison of the first generation and TM versions of the statewide model was prepared to provide the OMSC with an assessment of how the TM incorporates information learned from first generation model applications.
- The Oregon Transportation Plan (OTP) project team provided regular briefings to the OMSC. A reference case and alternative scenarios are being developed using the first generation statewide model and an OMSC subcommittee will review input assumptions and results. Fifteen working papers were prepared to provide background to the committees and a working draft of the OTP Vision Picture was provided to the OMSC. A copy of this information is available on the OTP website at http://www.odot.state.or.us/tdb/planning/OTPUpdate/.
- The following significant projects are pending and may include OMSC oversight:
  - *Regional Planning Study for Jackson County*
  - *Lane Council of Governments 2050 Plan*
  - *Mid-Willamette Valley COG 2050 Plan*
  - *Linn/Benton Cross-County Commute* - this project was identified about two years ago and was reaffirmed in the 2003 legislative session when a bill was passed for state agencies to review the jobs-housing balance and availability of affordable housing in the Corvallis area. Many workers travel from east of I-5 to the west because of a variety of land use decisions made by different jurisdictions. Modeling and analysis will help define regional impacts of this imbalance.
  - *Add Clark County Data to be consistent with data used by Portland Metro* - The Portland/Vancouver area functions as one community and it is difficult to represent the interaction of these communities without providing an equal level of complexity in models for both areas.
  - *The Oregon Transportation Investment Act (OTIA) III* – this program was approved by the 2003 Legislature to repair/replace deficient bridges throughout Oregon. When completed, an OMSC subcommittee will provide oversight for application of the TM for defining performance measures and reporting on compliance with investment objectives.
  - *Metro "Big Look"* - Metro is doing an evaluation of the Metro 2040 plan to see how policies in the plan are working and to identify areas that need modification.

The Metro model and the TM will be used for allocations and to look at the ripple effects of Metro policies throughout the state, including traffic and freight flows between cities.
    - *Columbia River Crossing* – discussion started on modeling and analysis to look at jobs-housing-economy issues on both sides of the Columbia River.
    - *Test Case for an Area-wide Sustainability Plan* – there has been discussion with the National Policy Consensus Center staff at PSU to work through what a sustainability plan would look like for a small city in Oregon using modeling tools to analyze the economy, land use and transport.
- The OMSC was briefed on the Oregon Small Urban Model (OSUM), which was completed and has been used successfully around the state. The model prepared for Coos Bay is used as a basis for other small cities.
- JEM-in-R coding was completed for the Metro model and was tested in Medford. JEM-in-R is the model set that ODOT developed for use in Metropolitan areas, constructed in the R language and using Joint Estimated Model work including survey data from all MPOs. Coordination occurred through the OMSC MPC Subcommittee.
- A Marion County model is under development.
- Air quality coding in R was completed and tested.
- Salem, Metro and ODOT completed emissions modeling for the Salem area. EMME-2 was linked to the EPA Mobile 6 to get carbon monoxide (CO) emissions for the area. The program was considered a model for interagency cooperation and coordination.
- Portland Metro continued its work on the TRANSIMS project. Algorithms were defined and put into application code. Through March 2005, Metro will do case studies in Portland.
- MPOs and ODOT are looking at moving from EMME-2 to another more powerful and flexible software platform.

Agency/Jurisdiction Coordination

- The air quality emissions modeling for the Salem area was completed by MVCOG, ODOT, Metro and DEQ. This was considered an excellent example of interagency cooperation and coordination.

Research/Data Collection

- The OMSC was briefed by Scott Drumm on the Regional Freight Data Collection Program-Phase II. This is a regional data collection project, managed by the Port of Portland on behalf of the region. ODOT has been collecting data moving through the Region. There is good external information but not good information on where freight is moving within the region.
- Dr. Thanit Puthpongsiriporn and Donald Helvie of OSU gave a presentation to the OMSC on the Portland Commodity Flow Data Collection Pilot Project. The objectives of the project are to collect freight transportation data and to evaluate the effectiveness of GPS technology for the collection of commodity flow data. The project will focus on Portland and is intended to improve the commodity flow model.

- The Portland State University Center for Transportation Studies prepared the first Annual Portland Metropolitan Region Transportation System Performance Report in 2004. The report was based on the Texas Transportation Institute (TTI) annual Urban Mobility Report and the ODOT 2004 Oregon Statewide Congestion Overview Report. Results of the study were presented to the OMSC by Rob Bertini. A copy of the report is at www.portal.its.pdx.edu.
- PSU submitted several research applications to the ODOT Research Program, including a ramp metering research proposal, use of bike/ped crash data, and use of green light data to build an OR/WA database on truck use of I-5.

Outreach and Information

- A new Oregon Modeling Improvement Program (OMIP) brochure was published, updating OMSC membership and OMIP program information.
- The OMSC is co-sponsoring the 10th TRB Planning Applications Conference in Portland in April 2005. Metro and ODOT organized a local steering committee for the conference and OMSC members participated in soliciting sponsors and exhibitors.
- The 4th Oregon Modeling Symposium will be the final symposium highlighting development and implementation of TLUMIP and other modeling programs. At the recommendation of the Peer Review Panel, the symposium was rescheduled from August 2004 to November 15-17, 2005.
- An overview report of the OMIP development and application was submitted to FHWA for publication.

Performance Measures - ***Bud Reiff/LCOG, Chair***

Purpose: Address the environment and criteria under which models are applied, i.e., regulatory requirements and general application. Focal point for peer review.

Policy Applications

A multi-year Transportation Plan Performance Measures research project is being conducted under the oversight of this subcommittee. This research is intended to address the concern, especially among MPOs, that Transportation System Plans and other state planning documents have broad policy statements but no good mechanism for evaluating performance against these policies. In Task 1, State and MPO plans were reviewed to catalog performance measures, a literature search was conducted, and state and MPO models were inventoried to define the types of model output. This activity provides a framework for thinking about performance measures. Task 2 included developing performance measures for those not well covered, and testing and refining the measures. A draft set of performance measures was circulated to OMSC members for comment. Task 3 is addressing how to test the measures and the research will draw on a panel of experts for this task.

AD HOC SUBCOMMITTEE ACCOMPLISHMENTS

For issues that require additional personnel or expertise beyond the OMSC, or to address specific and complex issues, Ad Hoc subcommittees were formed to implement activities of OMSC Standing Subcommittees. Ad Hoc Subcommittees in 2004 included:

Modeling Program Coordination Subcommittee, ***Mike Jaffe/MWVCOG, Chair***

This subcommittee coordinates the modeling elements of the ODOT and MPO work programs. The subcommittee generally provides a forum for MPOs to discuss issues of common concern. Activities in 2004 included:

- ODOT and MPOs regularly shared information on modeling projects and issues.
- MPOs and ODOT are looking at moving from EMME-2 to another more powerful and flexible software platform. The MPC provided a forum to discuss options and how different software packages will affect the overall modeling program.
- The MPC provided a forum for the OTP project team to coordinate with ODOT and MPOs to obtain data to address OTP performance measures.
- An update of the MPO/ODOT modeling coordination work program was prepared to help identify common needs, threats and concerns and should be updated. .

Continuous Survey for Modeling in Oregon (COSMO) Subcommittee – ***Bill Upton/ODOT, Dick Walker/Metro, Co-Chairs***

With input from an expert panel, the subcommittee made a recommendation in 2003 to develop a statewide survey with both longitudinal panel and repeated cross-section survey components. In 2004, a consultant team was hired to design the survey and estimate costs; conduct a pilot survey in the Portland Metro area; and recommend a continuing survey process. Recommendations for a full statewide survey will be based on the pilot survey and are expected by spring 2005. Full implementation will depend on funding availability.

Other Activities

- DLCD began an update on the Transportation Planning Rule in 2004. A summary of TPR stakeholders and process for the Metropolitan Status Report were presented to the OMSC by Bob Cortright. Copies of TPR update materials, schedule and process are available on the DLCD website at www.lcd.state.or.us.
- PSU is exploring funding options to upgrade 400 ramp meter detectors in the Portland area. OMSC members were strongly encouraged to make sure that that the traffic detection capabilities in ramp metering equipment be set up to do counts when a new ramp meter is installed.