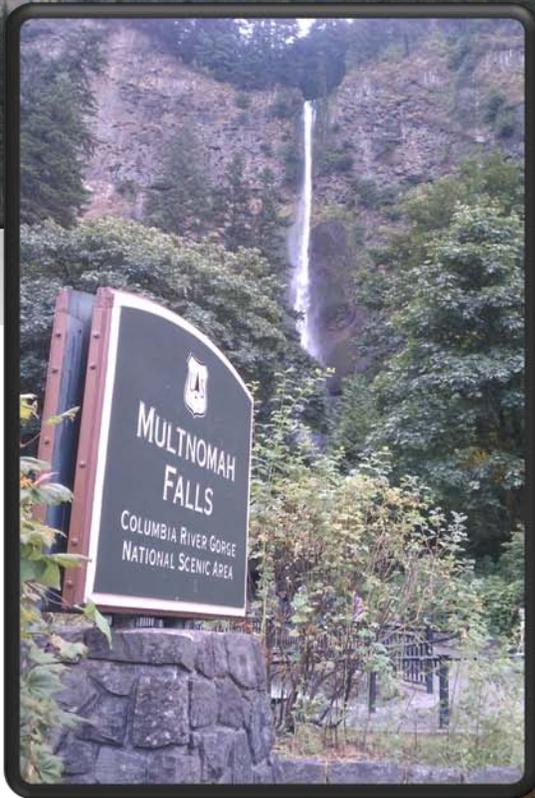


WESTERN MAINTENANCE PARTNERSHIP TECHNOLOGY EXCHANGE 2011 TOUR



September 13-14, 2011

REPORT OUTLINE:

- 1.0 Program Background
- 2.0 2011 Tour Attendees
- 3.0 Key Speakers
- 4.0 2011 Oregon Tour Agenda
- 5.0 Key Sites and Features
- 6.0 Additional Information
- 7.0 Conclusions

..

1.0 Program Background

The Western Maintenance Partnership Technology Transfer (WMPTT), was started in 2006 (State Fiscal Year) as a coalition of western states seeking to facilitate the funding of scanning tours in various states within the coalition. In addition to funding from the FHWA, the WASHTO states are invited to participate by contributing to the pool fund.

Each year a different States hosts the tour and provides an inside view of their maintenance practices. Listed below is the past history of which States have hosted as part of this pool fund:

- 2006 Colorado
- 2007 Alaska
- 2008 Wyoming
- 2009 No Tour (many states under travel restrictions)
- 2010 No Tour (many states under travel restrictions)
- 2011 Oregon

The host state for FY2012 is still being determined. Potential candidates discussed include Nevada, Oklahoma, Texas and Washington

Rich Clarke and Utah is the central coordination point for this program.

2.0 2011 Tour Attendees:

Arizona:	Justin Crowder Marwan Aouad	jcrowder@azdot.gov maouad@azdot.gov
Idaho:	Steve Spoor	steve.spoor@itd.idaho.gov
Montana:	Jon Swartz	joswartz@mt.gov
Nevada:	Mike Murphy Dave Titzel	mmurphy@dot.state.nv.us dtitzel@dot.state.nv.us
North Dakota	Ed Pavlish	epavlish@nd.gov
Oklahoma	Alex Calvillo	acalvillo@odot.org
Texas	Andy Keith	andy.keith@txdot.gov
Utah	Rich Clarke Tim Ularich	richardclarke@utah.gov timularich@utah.gov
Washington	Thanh Nguyen Steve Holloway	nguyeth@wsdot.wa.gov hollost@wsdot.wa.gov
Wyoming	Marc Anderson	marcus.anderson@wyo.gov
ICA (independent)	Zane Webb	zwebb@ica-onramp.com
Oregon	Luci Moore LeAnn McCormick	lucinda.m.moore@odot.state.or.us leann.m.mccormick@odot.state.or.us

3.0 Key Speakers:

Mike Renault (*Incident Management Truck*)
Traffic Operations Specialist
Incident Response: Region 1
michial.j.renault@odot.state.or.us
Office: (971) 673-6223
Cell: (503) 969-7578

Larry Olson (*Road tour from Portland to Mt. Hood*)
District Manager (District 2C)
larry.olson@odot.state.or.us
Office: (503) 665-4514
Cell: (503) 720-4484

Lynn Frank (*Solar Highways Project*)
Five Stars International, LTD.
President
(503) 510 - 1165

Galen McGill
Traffic Management Software
galen.e.mcgill@odot.state.or.us
(503) 986-4486

Edward Joseph
Parkdale Station Coordinator
edward.d.joseph@odot.state.or.us
(541) 352-6312

Mark Manley
Bend Shop Foreman
mark.manley@odot.state.or.us
(541) 388-6226

Ben Grant
Maintenance Training Academy
benny.l.grant@odot.state.or.us
(503) 986-3054

4.0 2011 Oregon Tour Agenda:

Below are the key stops along the tour. Many conversations and points of interest were discussed during the drive from point to point and will be highlighted later in the report.

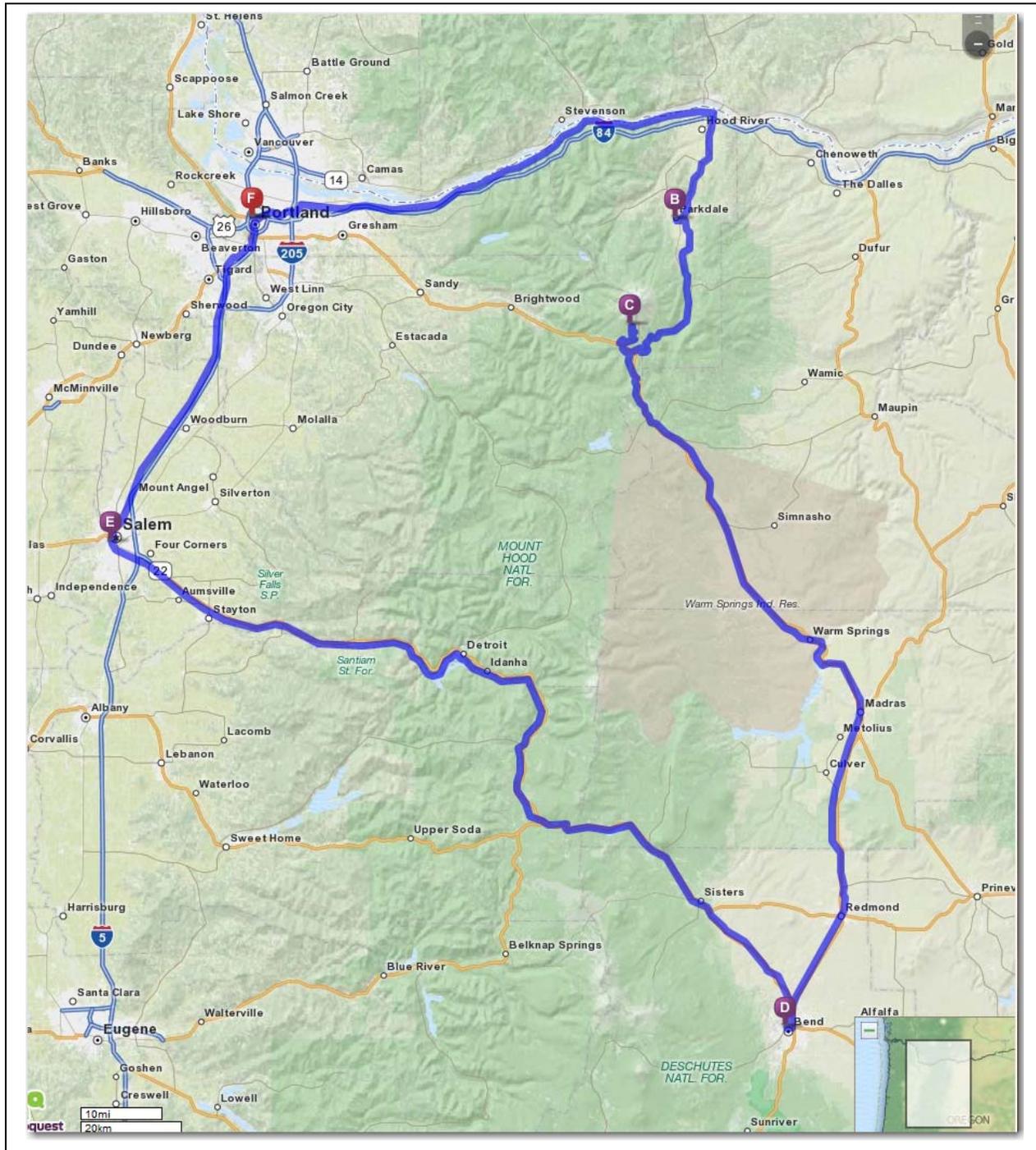
Tuesday September 13:

- Incident Management Vehicle
- Multnomah Falls
- Parkdale Maintenance Yard
- White River Bridge
- Government Camp
- Timberline Lodge (Mt. Hood)
- Truck Shop at Bend

Wednesday September 14:

- Maintenance Academy at "The Pit"
- Salem headquarters for Traffic Management Software demo
- Baldock Rest Area (7 acre solar farm)
- I-5/I-205 Solar Highways demonstration project

Route Map:



- A/F: Portland
- B: Parkdale Maintenance Yard
- C: Mount Hood/Government Camp
- D: Bend
- E: Salem

5.0 Key Sites and Features:

Below are the key stops along the tour. Many conversations and points of interest were discussed in transit, and may not be fully covered by this document. Several individuals had conversations ranging from feature inventory, outsourcing to culvert markers. You are encouraged to make contact with anyone you feel may be able to provide you with important information that will help you implement "best practices" for your state.

Oregon Traffic Operations / Incident Response

Unique Features:

- Staff cross trained in many emergency response backgrounds (fire/rescue, EMT, Forestry, etc.)
- Vehicles maxed out at their GVWR
- Expected life of truck is about 150,000 miles even as a diesel
- Discussed goal of 90 minutes to clear accidents
- Basic Automatic Vehicle Location using dedicated cellular phone.

Point of Contact

Michael Renault, Traffic Operations Specialist



Multnomah Falls: Divided Highway with Median Parking Issues

Unique Features:

- Median Parking lot between divided highway (left exit)
- Highly visited location that is becoming increasingly problematic
- Several design considerations are being evaluated: alignment changes, multi-level parking, etc.
- Must consider the Columbia River Gorge Commission, which is an important stake holder in any project along this corridor (OR 35).
- The existing alignment of OR 35 is adjacent to the original highway system. Some sections of the old highway are still functional and others are being evaluated for upgrade to allow for a new continuous trail system that incorporates the old highway alignment.

Point of Contact

Larry Olson, District Manager (2C)



Parkdale Maintenance Yard Rut Paver / New truck storage

Unique Features:

- Station developed their own rut paving machine, which hooks to the front of a John Deere tractor.
- The special truck bed also has an insulated design and hydraulic controlled gates. This allows for long haul projects that will keep the asphalt hot in cool conditions.
- The operation is to grind out the existing rut and pave over with this the adjustable paver.
- The station also recently became owners of a new 5 bay truck garage (\$250,000). This will help with issues of parking their trucks in the older, shallower, building.

Point of Contact

Guy Mooney Spoke, and Edward Joseph, is the Parkdale Station Coordinator



Highway 26/35: White River Debris Event Divided Highway with Median Parking Issues

Unique Features:

- November 2006, a large debris flow in the White river caused severe channel migration and roadway failures along Highway 26 and 35. The affected drainages were White River, Clark Creek and Newton Creek.
- An innovative bid process allowed the state to expedite the bid process, work around the clock, and open the highway by early December.
- Currently, a large scale project is underway to improve hydraulic openings (bridges) that will reduce the vulnerability of the highway to costly and damaging effects of debris flow in the area.
- Alluvial deposits from this event eventually made a large alluvial deposition in the Columbia River.

Point of Contact

Larry Olson, District Manager (2C)



Government Camp / Timberline Lodge

Unique Features:

- This location is critical to keeping the mountain pass and Mt. Hood open during the winter months.
- Employees may opt to rent rooms in a Dormitory or one of four individual houses. They are required to be on call out during night times.

Point of Contact

Larry Olson, District Manager (2C)



Bend Equipment/Maintenance Shop

Unique Features:

- Visited site during blower rebuild/repair season.
- 16 Kodiak Blowers, up to 6 reserve (older models) for severe conditions
- Corrections build their sanders.
- Full machining capabilities to manufacture and repair parts as necessary.
- Do their own hardening (build up of welding rod) to blower parts to handle the abrasive action of the cinders used on their highways.
- During winter months, they maintain other equipment such as mowers, paint trucks, pavers, etc.
- Unique equipment included a guardrail post cleaning attachment for a grader (to remove cinders), a truck built to bench the snow along the side of the highways.

Point of Contact

Ben Grant, Academy Coordinator



Tuesday Night

Phoenix Inn
Bend Oregon
(541) 317-9292

Maintenance Academy at "The Pit"

Unique Features:

- Train approximately 15 to 30 for an ideal group (held twice a year)
- Many of the trainers are retired maintenance workers
- Held twice a year for new staff and refresher courses for existing staff
- Approximately \$100,000 per event (some equipment is demos from Mfg's.)
- Cost savings in the form of better maintained equipment and employee skill, less down time.
- Often get to train attendees on US Forest Service and County projects
- Modeled after an earlier New Mexico Program
- Academy is two weeks long and attendees do everything from tree falling (level 1), CDL's, equipment, culverts and boxes, loaders, etc.
- Additional classes are held on graders, chip seals, lane leveling.

Point of Contact

Ben Grant, Academy Coordinator



Salem Office

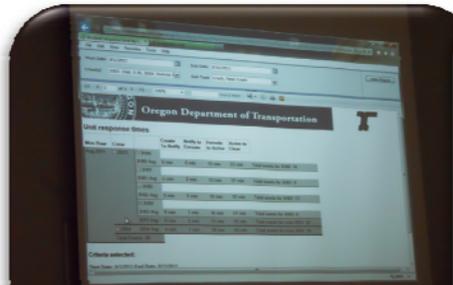
Traffic Op/Dispatch software and new equipment

Unique Features:

- In house developed software
- Allows coordination with highway patrol and ODOT
- Many features help search past events, create performance targets, and help monitor events real time. Again, they are trying for a 90 minute goal to clear the road during events.
- Will be developing a graphical/GIS interface in the near future
- Events can be initiated by public (although edited by staff before posting), Highway Patrol and ODOT staff.
- The software is for internal use, although it is used to update Trip Check, which is the public information system.
- Will be incorporating Automatic Vehicle Location in the upcoming months to help improve coordination and response times.
- Showed new bridge inspection crane and herbicide truck with advanced mixing controls (speed based, concentration, etc.)

Point of Contact

Galen McGill, Traffic Management



The Nations first solar highway(I-5/I-205) & Baldock Rest Area Solar Array

Unique Features:

Baldock Rest Area (I-5)

- Planned solar array to take up approximately 7 acres of the 27 acre site.
- May build new visitors center at the rest area.
- 9 of the states rest areas are now being managed by the Travel Info Council. (\$3M/yr)
- Oregon has 30 rest areas total
- Homeless population has been dramatically decreased due to more active management.

Solar Highway at I-5/I205

- Nations first application of solar along highway right of way.
- Partnership with Portland General Electric (PGE), ODOT
- Used locally manufactured products (Solar World Modules, PV Powered Inverter)
- Many lessons learned about how to implement, retain REC's, achieve renewable energy goals

Point of Contact

Allison Hamilton, Program Manager
Allison.m.hamilton@odot.state.or.us



4.0 Additional Information:

- Oregon has had great success with continuously reinforced concrete pavements and feel they are worth the additional cost.
- Oregon, like many states has great concern about their culvert inventory and are working on ways to quantify and identify problem culverts.
- In the Parkdale area, they have to manage their projects around the pear harvest as it is a critical part of the local economy. Rough roads and delays can have serious impacts during the harvest season.
- Oregon uses plowable "button" markers that are typically replaced every two years.
- Blue Box Pass has a propane powered RWIS location
 - <ftp://ftp.odot.state.or.us/outgoing/Blue%20Box%20RWIS/>
- Oregon has:
 - 17,000 lane miles
 - 8,000 centerline miles
 - \$200 Million annual operations budget
- Oregon maintains a pavement marking test section on I-5 (below)



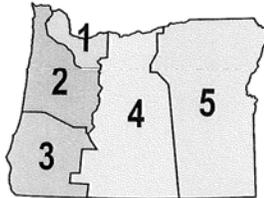
- Herbicide truck can change channels on the fly to modify application rates and herbicides
 - Truck still undergoing some fine tuning with the manufacture and cost an estimated \$244,000.
- 53% of Oregon is public land.
- No Shop Drawings on the rut paving box or tail gate.



Questions, comments or concerns?
 Call 1-888 Ask ODOT
 or 1-888-275-6368
 e-mail: AskODOT@odot.state.or.us

To report a life-threatening
 emergency, call 911.

To report a road hazard or
 roadside emergency call your
 local ODOT dispatch center:



Portland Metro

1. (503) 283-5859

NW Oregon, North and Central Coast

2. (503) 362-0457

Southern Oregon

3. (541) 858-3103

Central Oregon

4. (541) 383-0121

Eastern Oregon

5. (541) 383-0121

Road condition information:

www.TripCheck.com

call 511 or

(800) 977-6368



Form 731-0607 (10/09)

Ask ODOT

Questions, comments
 or concerns?

Call 1-888 Ask ODOT
 or 1-888-275-6368

E-mail:

AskODOT@odot.state.or.us

Road condition information:



www.TripCheck.com

For mobile devices, visit
www.TripCheck.com/mobile



call 511 or
 (800) 977-6368

Outside Oregon call (503) 588-2941

Ask ODOT

Citizens' Representative Office

Call 1-888 Ask ODOT
 or 1-888-275-6368

E-mail: AskODOT@odot.state.or.us