

Metropolitan Mobility the *Smart* Way

*The State of Intelligent
Transportation Systems in the
Portland Metropolitan Region*

A presentation for the
TransPort TAC

November 8, 2006





10/26: Breakfast Briefing

Gail Acterman, OTC, facilitated seven speakers and their vantage points on the role of ITS.

Capka: What makes a region competitive?

McDonough: ODOT saved Thanksgiving!

Johnson: Don't be afraid of technology

Bertini: Management strategies require evaluation

Hansen: Good for the customer and the business

Adams: Non-injury accidents are low-hanging fruit

Burkholder: It's time for political courage



10/26: Breakfast Briefing

The audience of 90 included elected officials, public agency managers, business leaders, law enforcement and more.





Introduction

- Congestion and safety are major costs to our society and under-performing infrastructure is a poor public investment.



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What is *Smart* ?

- From bike lanes to MAX lines, our region's transportation system is extremely smart but present challenges mean we have to make it smarter.



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Policy Mandate

- From the Oregon Transportation Plan to USDOT's National Strategy to Reduce Congestion on America's Roadways, the message is the same: do more with less.

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The Focus

- Addressing non-recurring congestion from sources such as incidents and poor traffic signal timing.

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The Opportunity

- System management and operational strategies can make the infrastructure work better and technology can make the strategies more effective.

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It's about time
Find out when your bus or MAX is coming

Transit Tracker™
503-238-RIDE

What is the State of ITS?

- The State of ITS in Portland is GOOD
- Current deployments are making the transportation system safer and more efficient in addition to being cost-effective.



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Traffic Signal Coordination



- The Climate Trust provided \$533,000 for the City of Portland to coordinate traffic signals at 150 intersections, saving \$3 million a year in gas, reducing CO2 emissions and reducing delay.

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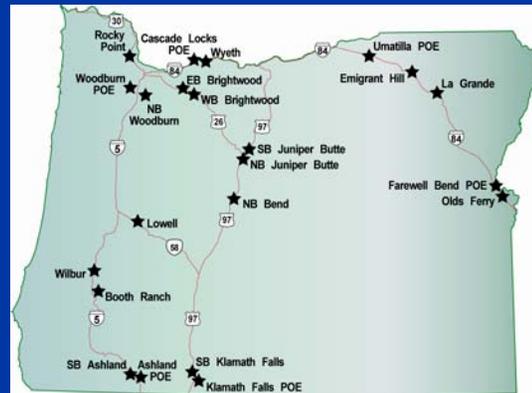


Truck Weigh-in-Motion

- In-pavement and roadside technology at 22 locations around the state allows trucks to skip the weigh station, saving trucking companies 524,000 hours and \$39 million in just the first seven years.



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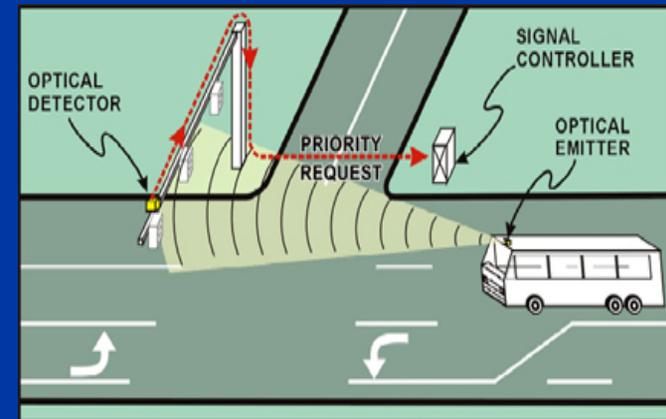
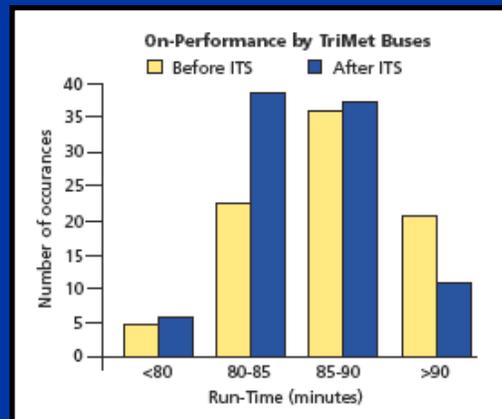


Transit Signal Priority

- When a bus is behind schedule on a high-frequency route, it can request a longer green light or a shorter red in order to make up time.



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Real-Time Traveler Info

- Websites and (511 or 238-RIDE) from ODOT and TriMet provide real-time information about when the next bus will arrive or where a highway is congested.



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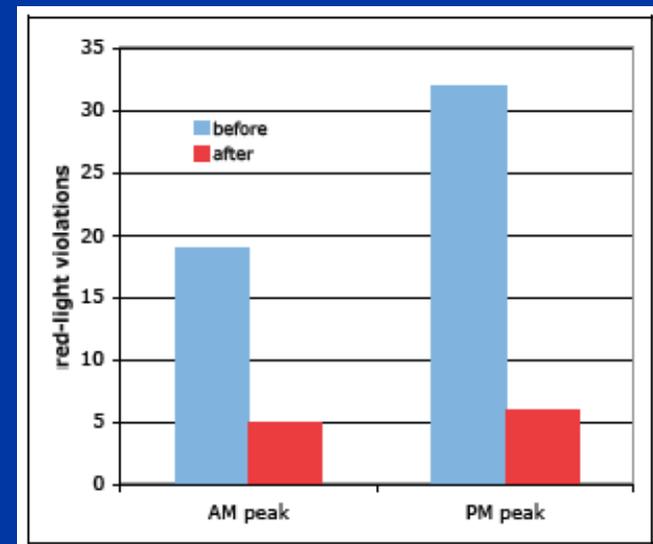


Truck Safety Signal

- A combination of devices installed at Columbia and Macrum in North Portland has reduced red light running by trucks.



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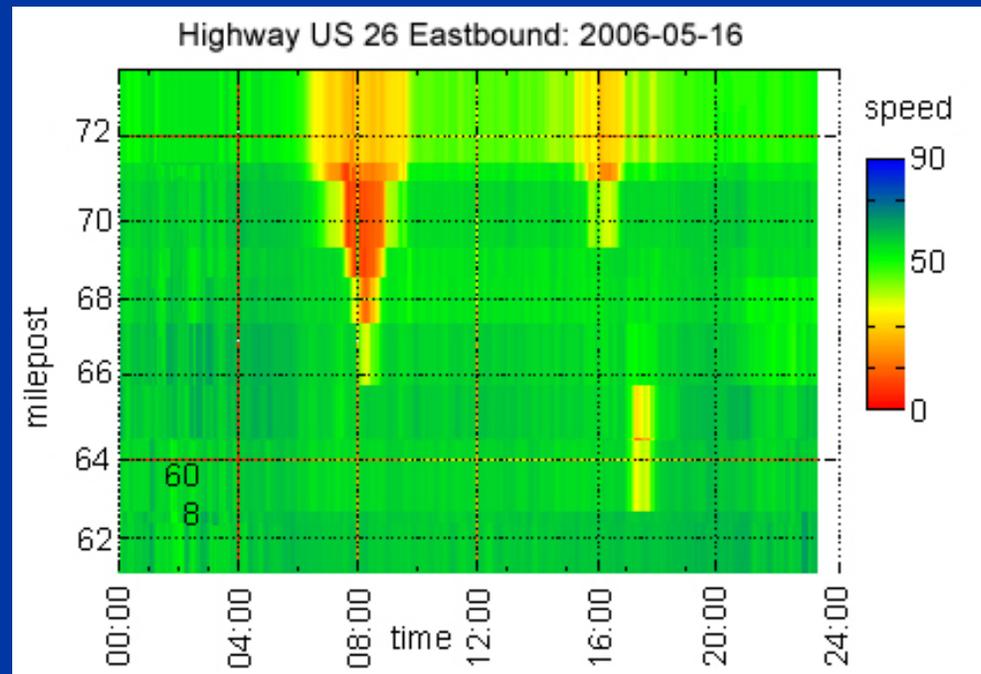


ITS Lab at Portland State

- PSU's ITS lab pairs research tools with implementing agencies to maximize the benefits of investing in technology.



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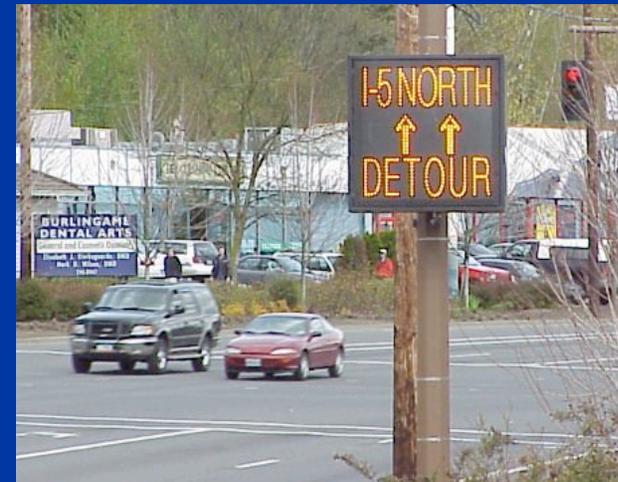


Integrated Corridor Management

- When a crash closes I-5 south of Portland, ODOT and PDOT use technology to make Barbur Boulevard a safe, efficient detour. I-205 is next and others could follow.



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Airport Parking Prepayment

- By allowing visitors to pay for parking in advance, the airport has reduced waiting lines at the exit plaza and improved air quality.



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Advanced Incident Response

- In-pavement sensors accelerate the detection of and response to incidents on the freeway; cameras help verify the scope; special crews help resolve minor problems quickly.



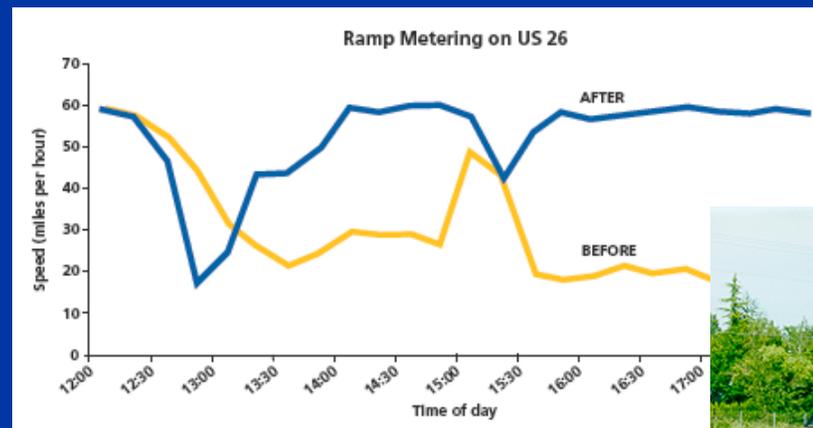
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Freeway Ramp Meters

- Ramp meters at 118 locations around the region reduce delay and crash rates associated with merging traffic.



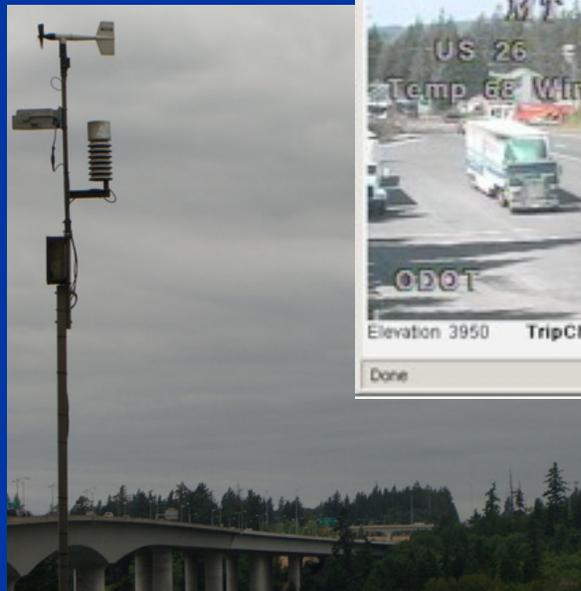
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Road Weather Information

- Real-time information about road conditions helps drivers deal with danger and helps maintenance crews allocate resources.



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Implementation of Local Plans

- Most jurisdictions and agencies in the region have ITS plans and the region has an “ITS architecture” that describes how information is shared.



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Strategic Opportunities

- Some ITS strategies require collaboration
 - Corridor Management
 - Traveler Information
 - Freight Management
 - Electronic Payment

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Possible Next Steps

- Regional ITS Strategy
- Utilization of ITS data for planning
- Integration of Planning and Operations

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Take Home Message

- Better decision-making for congestion management depends on:
 - a solid understanding of the cost-effective strategies, including ITS, that are promoted by national, statewide, and regional policy
 - regional coordination of both capital enhancements and system management strategies.



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Points of contact at most local agencies are included in the report