Opening Remarks
Road Weather Management

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October 6, 2011
Weather Responsive Traffic Management Workshop
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www.ops.fhwa.dot.gov/weather/index.asp
Weather Impacts - Safety

- The toll during adverse weather conditions
  - Over 1,500,000 weather-related crashes per year
  - 7,130 fatalities per year
  - Over 629,000 injuries per year
- 24% of all crashes occurred on slick pavement or under adverse weather

* Annual average for the 1995-2008 period
The Congestion Pie

- Poor Signal Timing: 5%
- Special Events: 5%
- Bad Weather: 15%
- Work Zones: 10%
- Traffic Incidents: 25%
- Capacity Constrained: 40%

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Weather Impacts - Mobility +

- **Mobility**: Cost of congestion is $9.45 billion/yr for the 85 major urban areas
  - weather causes ~25% of non-recurrent delay on freeways

- **Productivity**: Weather-related delay adds $3.4 billion to freight costs annually

- **Environment**: Chemicals affect watersheds, air quality and infrastructure
Road Weather Management

**Goal** - Improve mobility and safety by alleviating the impacts of weather on the surface transportation system

- “Anytime, Anywhere Road Weather Information” is the program’s mission
- This includes current and predicted information about weather’s affect on roads...
- ... and the decision support tools to aid road users and operators to make effective decisions, e.g.,
  - When to pre-treat roads for snow & ice control
  - When to post traveler advisories (fog, floods, rain, snow, etc.)
Conceptual Framework

Traffic Data & Transportation System Status

Weather Forecast Models

Weather Observing Systems

Decision Support Systems & Assessments

People & Policies

Societal Benefits

Predictions

Data

Observations

On-going feedback to optimize value and reduce gaps

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## High Level Roadmap

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<th>Focus Areas</th>
<th>Activities</th>
<th>Objectives</th>
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<td>Stakeholder Coordination</td>
<td>Build partnerships</td>
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<tr>
<td>Program &amp; Performance Management</td>
<td>Ensure investments pay off</td>
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<tr>
<td>R&amp;D</td>
<td>Transportation &amp; weather communities use fixed and mobile observations</td>
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<tr>
<td>RdWx Data Capture &amp; Mgmt</td>
<td>Integrate RdWx observations into advanced decision support tools</td>
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<td>RdWx Dynamic Applications</td>
<td>Advance the state-of-the-practice through tailored management strategies</td>
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<td>Weather-responsive Traffic Mgmt</td>
<td>Raise road weather capabilities across the industry</td>
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<tr>
<td>Tech Transfer, Training, Education</td>
<td>Operations is engaged with climate change community</td>
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<td>Operations &amp; Climate Change</td>
<td>Lots of interesting projects</td>
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