Session 2: WRTM Strategies – Advisory/Information Dissemination Strategies

State of the Practice Overview
Advisory/Information Dissemination

• WRTM Strategies
  – Passive Warning Systems
  – Active Warning Systems
  – Pre-Trip Road Condition Information and Forecast Systems
  – En-Route Weather Alerts and Pavement Condition Information

• Benefits
  – Improved safety
  – Reduced mobility impairments
  – Increased traveler satisfaction
# Passive Warning Systems

<table>
<thead>
<tr>
<th>Definition</th>
<th>Applicable Weather Events</th>
<th>Communication Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static informational and/or warning signs to alert travelers that potentially hazardous driving conditions MAY exist. Information is displayed regardless of whether or not the condition is present.</td>
<td>Icy conditions, wind warning, fog, blowing snow, floods.</td>
<td>Static signs.</td>
</tr>
</tbody>
</table>

![Static signs](image)
# Active Warning Systems

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<td>Supplements to passive warning signs with flashing beacons to alert travelers that the conditions specified on the static sign is currently in effect.</td>
<td>Icy conditions, wind warning, fog, blowing snow, floods.</td>
<td>Static signs with flashing beacons.</td>
</tr>
</tbody>
</table>

- **MAY BE ICY AHEAD**
- **FROST HEAVES**
- **FREQUENT HIGH WINDS**
- **SEVERE STORM AREA**
### Pre-Trip Road Condition Information and Forecast Systems

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<td>Disseminates information about current and forecasted weather and pavement conditions to travelers before they initiate their trip.</td>
<td>Snow and rain accumulations, high winds, flooding, limited visibility, tornadoes, black ice.</td>
<td>• 511</td>
</tr>
<tr>
<td></td>
<td>• Agency and private websites</td>
<td>• Media outlets</td>
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<td></td>
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**Example of Advisory/Information Dissemination Strategies**

- Agencies and private websites
- Media outlets
- Text messages
- Social networks

[Image of road condition monitoring system and weather forecast data]
### En-Route Weather Alerts and Pavement Condition Information

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</table>
| Provides traveler with real-time information and alerts about specific weather and pavement conditions currently existing or developing while they are en-route. | Snow and rain accumulations, high winds, flooding, limited visibility, tornadoes, black ice. | • DMS  
• HAR  
• 511  
• FM/AM radio  
• In-vehicle displays  
• Text messages |
Expert Panel Comments

• Improved communications to remote locations
  – Insufficient infrastructure in rural areas
  – Develop required network of communication infrastructure

• Enhanced weather information integration at TMCs
  – TMCs need to integrate weather information into their decision processes
  – Some examples, but need to expand to more TMCs
  – Wide range of possible strategies (Session 5)
Expert Panel Comments

• Improved guidance on the use of active warning systems
  – Active weather monitoring and warning systems are expanding
  – Lack guidance on when and where to implement
  – Develop guidelines, criteria and analysis procedures
Expert Panel Comments

• Use of consistent/common messaging across jurisdictional/state boundaries
  – Wide variety of messaging
  – Confusing to travelers/truckers traveling greater distances
  – Efforts needed, especially related to weather messaging, to coordinate message-sets, icons, and user interfaces
Clarus Multi-State Regional Demonstration Evaluation

- Web surveys in ID, MT and ND Jan-Feb 2011 with 216 traveler information users to assess value/benefits/uses of new pavement condition forecasts
Clarus – Some Lessons

- Individual state DOTs will need to figure out best ways to integrate pavement condition forecasts into their presentation of traveler information

- Travelers desire:
  - a one-stop place to get Wx info
  - route options as conditions evolve
  - comparable information for their entire route
Summary

- Advisory/information dissemination WRTM strategies are widely used across the country
  - Systems continue to be enhanced and expanded
  - Stakeholder input is important to refine information
- Numerous examples of deployments
- Very few system evaluations to measure and document benefits