WEATHER RESPONSIVE
TRAFFIC MANAGEMENT
WORKSHOP

Guidelines for Disseminating
Road Weather Information

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October 6, 2011
Discussion Topics

• Objectives

• General Approach

• Phase 1 Review: Developing the Preliminary Guidelines

• Phase 2 Activities
  • Objectives
  • Key Questions
  • Evaluation Activities
  • Current Status
Objectives

1. Identify the weather information requirements of travelers across a representative number of travel scenarios,

2. Evaluate the current state of the practice in weather-responsive traffic advisory and control strategies in terms of meeting those information requirements, and

3. Recommend ways to improve those practices including the development of communication and messaging standards.

Bottom Line: Identify ways to disseminate road weather advisory and control information to travelers in a manner that is understandable, useful, and effective.
General Approach

Phase 1 (2008-2010) - Develop a set of preliminary messaging guidelines, suitable for evaluation by representative end-users.

Phase 2 (2010-2012) - Test and evaluate the preliminary guidelines & revise them based on end-user feedback.
Phase 1 Review: Developing the Preliminary Guidelines

What are the Key Mobility impacts?

For Example:
- reduced traction
- congestion
- poor visibility
- road closures

What are the Traveler Decisions to be made?

For Example:
- expect & plan for delays
- use alternative route
- change travel modes
- drive with greater caution
- change their driving behavior
- make safety-related preparations
- cancel their trip

What are the appropriate Dissemination Methods?

For Example:
- DMS
- HAR
- 511
- In-vehicle devices
- Cell phones
- Kiosks
- Websites
Phase 1 Review: Developing the Preliminary Guidelines

• 30 guidelines and 4 tutorials for road weather advisory and control information reflecting relevant literature and best practices for topics such as:
  – Message content, length, and structure.
  – Design of fonts, colors, icons, and alerts.
  – Display of map, weather, and traffic information.
  – How to communicate timeframe, urgency, likelihood.

• **Specific guidelines are provided for the range of dissemination methods (DMS, HAR, 511, etc.) associated with road weather information.**

• End-users can use the guidelines to develop or augment existing practices regarding dissemination methods or road weather messages

• Focus is on providing weather messages that are clear, accurate, and timely.
Phase 1 Review: Developing the Preliminary Guidelines

Guideline Title: Contains the guideline number, specific topic addressed by the guideline, and the applicable Dissemination Method types

Introduction: Brief definition of the scope of the guideline

Figure, Table, or Graphic: Visual representation or example of the information presented in the guideline

Key References: List of references used to write the design guideline

Design Guideline: Message design guidance, always presented in a blue box

Discussion: Further explanation and rationale for the design guideline

Page Number
Phase 2 Activities: Objectives

(1) Develop and implement a plan to test and evaluate the preliminary design guidelines for disseminating road weather information.

(2) Revise the guidelines based on the outcome of the test and evaluation.

(3) Conduct outreach activities in order to encourage the use and adoption of the design guidelines.
Phase 2 Activities: Key Questions

• Are there other relevant design topics for which recommendations/guidelines are needed?

• Are participants aware of other information sources that can be used to improve or augment the information currently contained in the guidelines?

• How well does the document meet the day-to-day needs of end users?
Phase 2 Activities: Key Questions (cont.)

• Can any improvements be made to the document’s structure, organization, and layout of individual guidelines to make it easier to use?

• How should the guidelines be revised to better reflect differences across state DOTs or TMCs with respect to how road weather messages are constructed and disseminated (e.g., the use of a standard set of DMS messages vs. messages created as needed).

• Do any of the recommendations/guidelines conflict with their current practices—if so, where and how?
Phase 2 Activities: Evaluation Activities

1. In-depth, end-user evaluations. Participating agencies and organizations are:
   - Kansas City Scout, MO
   - Wyoming Statewide TMC
   - Colorado Springs TMC
   - Colorado DOT
   - Washington State DOT and NW Regional TMC
   - Maryland CHART
   - Indiana DOT
   - Meridian Environmental Technology, Inc.
   - Castle Rock, Inc.
Phase 2 Activities: Evaluation Activities

1. In-depth, end-user evaluations. Key activities include:
   - Initial kick-off meetings to establish goals, schedules, and baseline procedures/operations.
   - Reviews of the guidelines and suggestions for improvements.
   - Implementation and evaluation of agency messaging improvements through field tests.
   - To the extent possible, traveler assessments of improvements or efficacy in road weather messaging practices.
Phase 2 Activities: Evaluation Activities

2. Web-based questionnaire based on e-mail requests that included a project description and the preliminary guidelines. Evaluation requests were sent by e-mail, either directly or through key PoCs, to approximately 200 individuals including members/participants of:

– I-95 Corridor Coalition
– TMC Pooled Fund Study
– I-80 Winter Operations Coalition
– Aurora Program
– Participants at the WRTM workshop
Phase 2 Activities: Current Status

- Presentation Easy to Understand
- Information Easy to Use
- Topics Easy to Find
- Overall: Useful and Valuable

Yes: Most, Average, Somewhat, No

Overall: Useful and Valuable

Yes: Most, Average, Somewhat, No
Question or Comments?

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