FHWA WRTM
Program Overview

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Federal Highway Administration

Session 1-1
2nd National Workshop on WRTM
Salt Lake City, UT
September 25-26, 2013
Weather Impacts on Highway 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
Weather Impacts on Highway Mobility

- 15% of Total Delays and 25% of Non-Recurring Delays are Weather-Related

- 15% of Delays are due to Bad Weather
- 10% of Delays are due to Work Zones
- 25% of Delays are due to Traffic Incidents
- 5% of Delays are due to Poor Signal Timing
- 5% of Delays are due to Special Events

Capacity Constrained 40%
Road Weather Management Program R&D Areas

- Road Weather Data Capture and Management
- Road Weather Dynamic Mobility Applications
- Weather Responsive Traffic Management
- Performance Evaluation and Management
WRTM Program Goals

- Help transportation agencies use current and forecast weather and traffic conditions to manage traffic flow and highway operations
- Help motorists receive and respond to road weather and traffic information
- Incorporate weather impacts in traffic analysis and engineering models
- Improve traffic safety and mobility during adverse weather
WRTM Framework
WRTM Strategies

- **Advisory**
  - Warning Systems
  - Traveler Info. Systems

- **Control**
  - Signal Timing
  - Ramp Metering
  - Variable Speed Limit
  - Road/Lane Closure

- **Treatment**
  - Maintenance
  - Obstruction Removal
Recent/Current Activities

- WRTM Webinar Series (Feb, March, May, Nov ‘12)
- Guidelines for Disseminating Road Weather Messages
- Guidelines for VSL Implementation during Wet Weather
- WRTM Web-based Training (CITE)
- Weather Responsive Traffic Estimation and Prediction System
- Advanced WRTM Strategies Implementation
  - Traveler Information System (Utah DOT)
  - Active Traffic Management (Oregon DOT)
  - Traffic Signal Control (Utah DOT)
Future Activities

- Using Mobile Data for WRTM Strategies
  - Michigan
  - Wyoming
  - South Dakota
- Cost/Benefit Analysis of WRTM Strategies
- WRTM Webinar Series
- Analysis, Modeling and Simulation Test Beds for RW Connected Vehicle Applications
- 3rd National WRTM Workshop (Sept. 2015)
Road Weather Management
Anytime, Anywhere Road Weather Information

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