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Nevada DOT*



# WINTER OPERATIONS COALITION

## Multi-State Approach to Improved Corridor Operations



**Road Weather Management Stakeholder Meeting  
September 7-9, 2011**



# The Transportation and Freight Perspective

- I-80 feeder routes consist of U.S. and state highways as well as interstates
- The freight industry views I-80 as a multi-route freight corridor with connecting and parallel routes







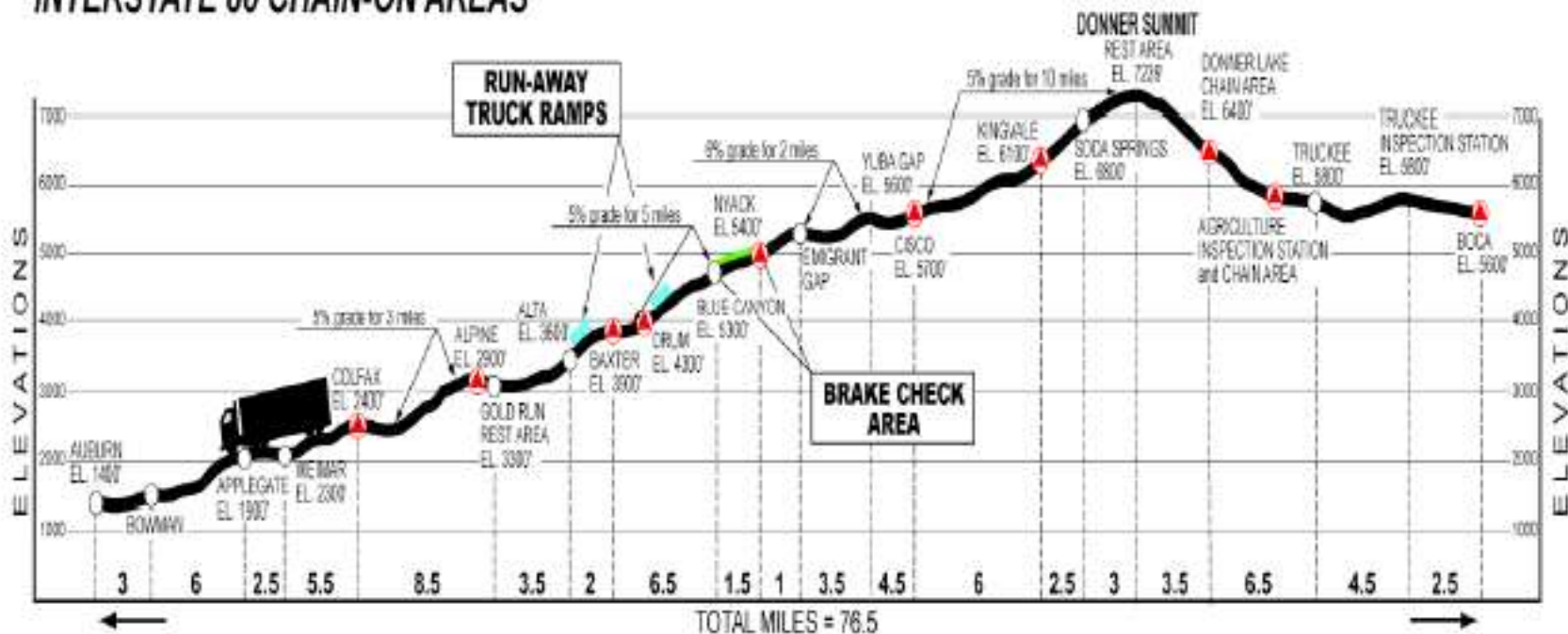
## The Problem...

- Major economic freight/tourist corridor (50% trucks)
- 1,200 miles across four states – rural & mountainous
- 346 deaths in the U.S. from icy roads (2009-2010)
- Snowfall – Donner Summit 420”, Nevada 200”-300”
- Massive elevation changes
- Wyoming and Nebraska flat lands



# California – Donner Summit

## INTERSTATE 80 CHAIN-ON AREAS





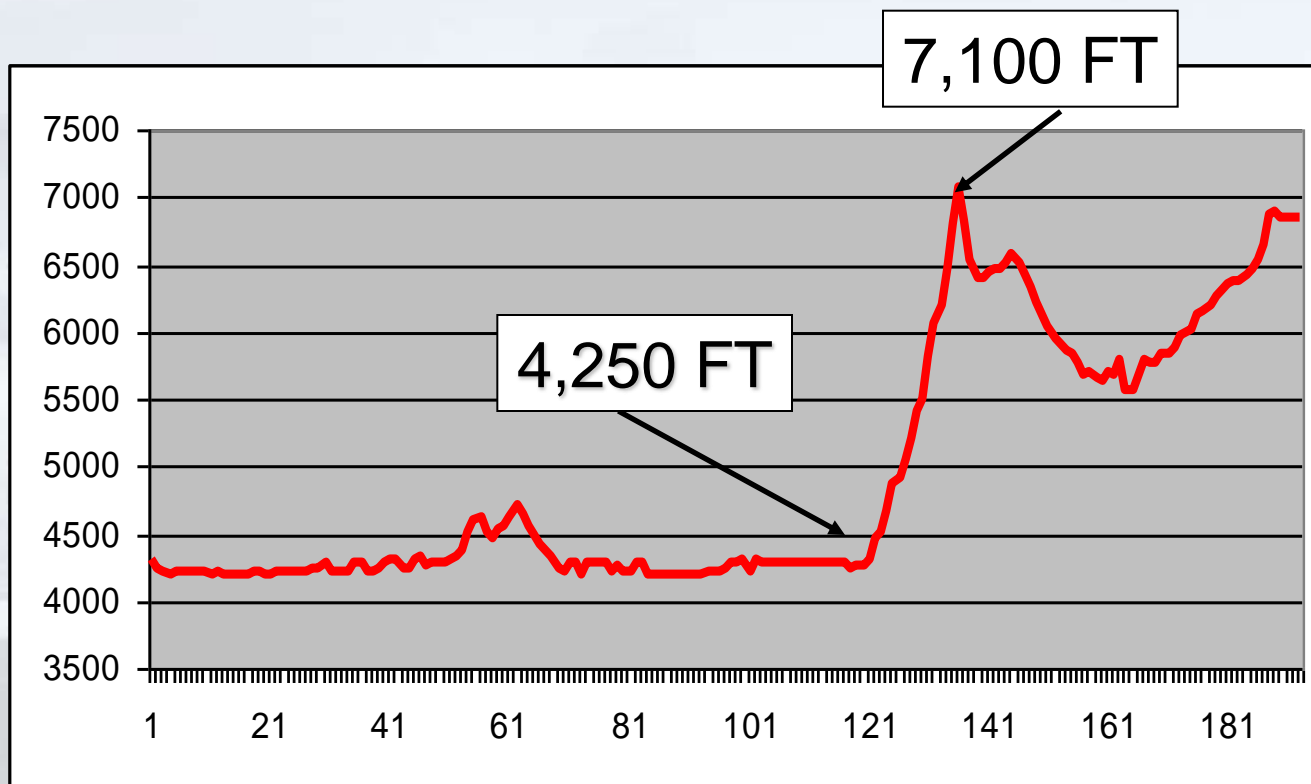
## Queue on I-80 during a snow closure at the CA/NV state line







# Utah – Parley’s Canyon





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# Wyoming Blowing Snow / Visibility







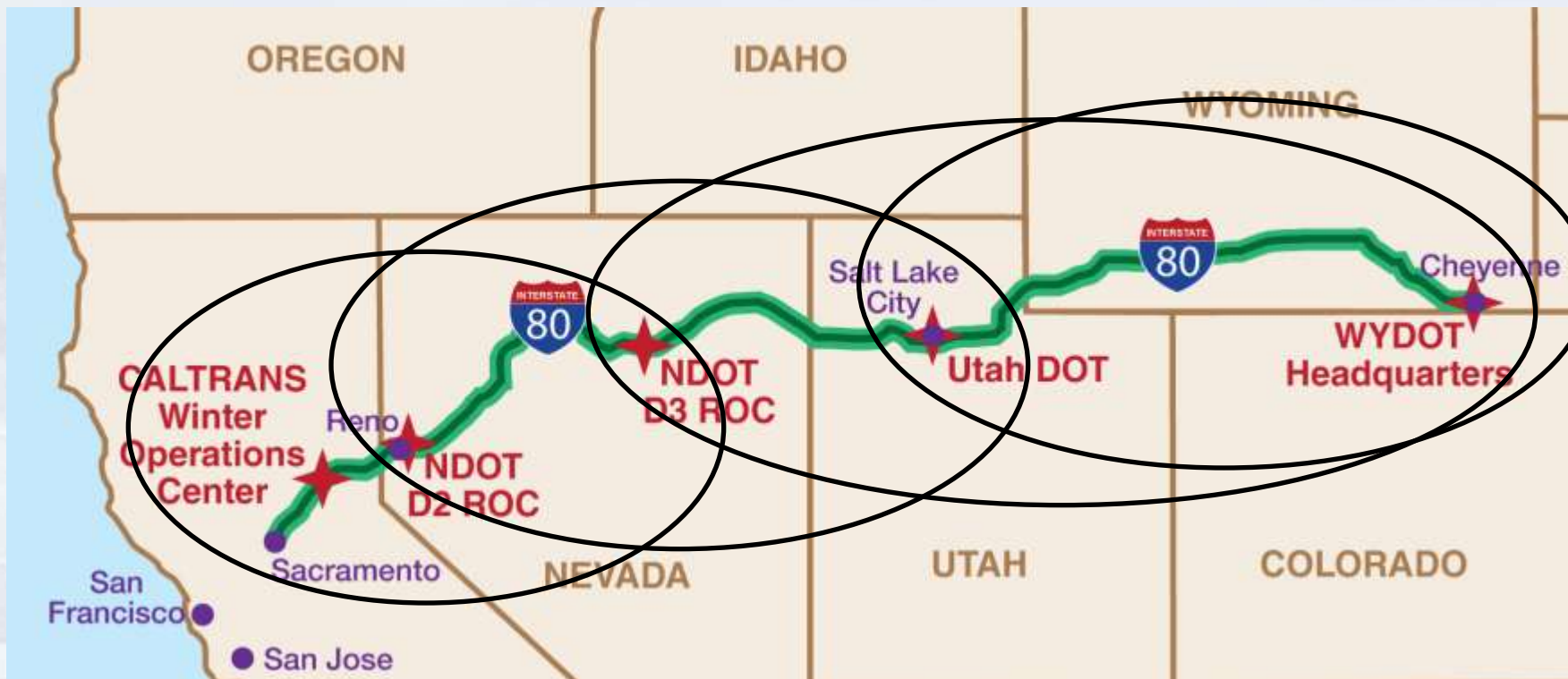
## The Impact...

- Delays – Economic Costs at \$1M / Hour
- Stranded Motorists
- Accidents – Safety Deteriorates
- Limits Access for EMS/Emergency Response





# The Solution



Share Information Across State Lines

Link Traffic Operations Centers

Consistent Interstate Service



## High Priority Initiatives

- Leverage state resources to create innovative solutions to winter issues on I-80
- Provide a forum for information sharing
- Share data with transportation agencies and public
- Establish common procedures for consistent operations
- Coordinate, Communicate, Cooperate (C<sup>3</sup>)
- Establish partnerships: funding, traveler info, weather forecasting





# Coalition Kick-Off Meeting January 2010

## I-80 Coalition Partners:

- Caltrans
- Nevada DOT
- Utah DOT
- Wyoming DOT

## Private Sector Involvement:

- Kimley-Horn
- Northwest Weathernet
- Weather Solutions Group
- Vaisala
- Meridian Environmental

## Peer State Input:

- Washington State (NW Passage)
- New Hampshire (I-95 Coalition)





## Coalition Meeting October 2010

### I-80 Coalition Partners:

- Caltrans
- Nevada DOT
- Utah DOT
- Wyoming DOT
- Nebraska Dept of Roads

### Invited Speakers/Participants:

- Wal-Mart
- National Center for Atmospheric Research (NCAR)
- National Weather Service (NWS)

### Private Sector Involvement:

- Kimley-Horn
- Northwest Weathernet
- Vaisala
- Meridian Environmental
- Telvent DTN
- Open Roads Consulting
- Inrix



# Task Forces

| <b>TMC/<br/>Communications</b>   | <b>Road Weather<br/>Management</b>  | <b>Freight</b>   |
|--|---|--|
| <ul style="list-style-type: none"><li>▪ Improve coordination and communication among TMCs</li><li>▪ Proactive and pre-weather event planning</li><li>▪ Consistent traveler info for major weather events</li></ul> | <ul style="list-style-type: none"><li>▪ Weather influences on Maintenance, TMC Ops, Freight</li><li>▪ Better integrate and apply weather data sources and forecasts</li></ul> | <ul style="list-style-type: none"><li>▪ Share information about freight activities, studies</li><li>▪ Engage private sector for input to issues and strategies</li><li>▪ Advisory-level function</li></ul> |





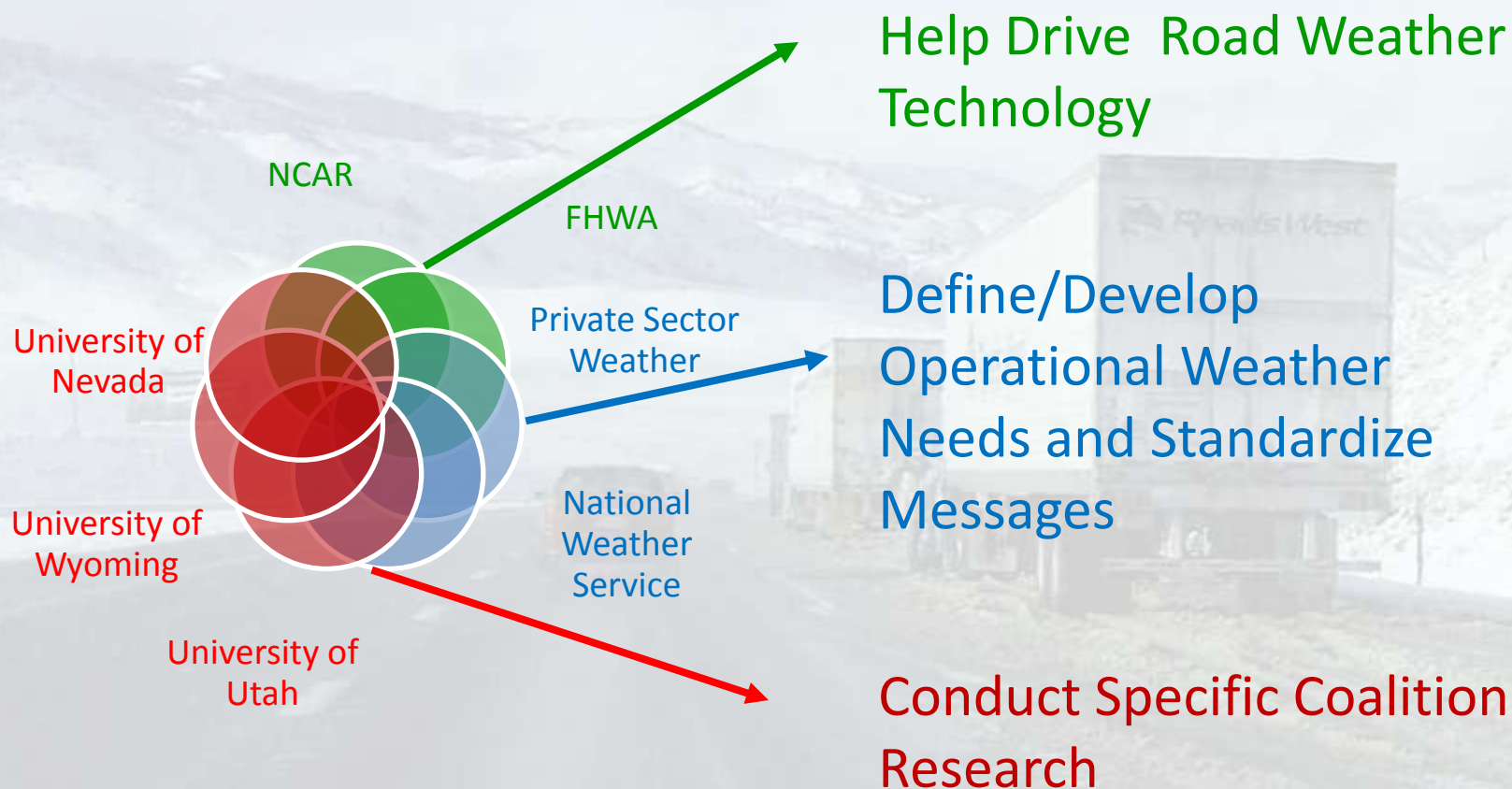


## TMC/Communications

- Coordination call held on March 24 (a Thursday) and a follow up call on March 29 (a Tuesday)
- Caltrans TMC Tour and Training
- UDOT used its DMS to post closure notifications of I-80 at Donner Pass
- Nebraska post-storm coordination with Wyoming



# Weather – Mapping Out Partnerships





## Freight

- Freight considerations for traveler Information and mobility
- Leverage freight activities in partner states
  - I-5 truck parking
  - I-15 Truck Parking Study
- Advisory role/input
  - Road Weather Management Task Force
  - Unique traveler information needs
- Maintain connections with private sector freight





## IMO Project

- Allow real-time mobile data information to be captured and exchanged
- Measure efficiency gains (labor and material savings – easy to do through snow/ice mgmt)
- NDOT supplying 19 vehicles along the I-80 corridor in a joint venture with University of Nevada Reno (UNR)
- Partners
  - NDOT
  - NCAR
  - FHWA Road Weather Management Program
  - FHWA CLARUS



## IMO Project

- Proof of Concept UNR snowplow CAN-bus data completed
- Data collection tests will occur throughout summer
- Research Outcomes
  - Integration with CLARUS and MDSS
  - Partnering with private companies to enhance data



## Coalition Accomplishments

- Corridor-wide contact list/map
  - Ops, maintenance, NWS, traveler info resources
- Coalition web site
  - Best practices, coalition documents, links
- Successful outreach activities
- Involvement of key stakeholders throughout year using webinars and Task Force meetings





## Coalition Accomplishments

- Multi-state projects – TIGER II submittal, IntelliDrive<sup>SM</sup>
- Weather initiatives – iNWS and NWSChat tool, working on Weather Ops Plan
- Freight partner involvement
- States will work with each other for pre-storm and post-storm coordination efforts
- Collaboration and sharing of emerging projects/programs that could benefit other states



# WINTER OPERATIONS COALITION



## WINTER OPERATIONS COALITION



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### Corridor Overview



Interstate 80 is a major east-west interstate corridor through the states of California, Nevada, Utah and Wyoming, and is a major economic freight and traveler corridor which can better service the public through improved and coordinated maintenance and traveler information services. Integration and continuity of Winter Maintenance Operations across the United States is needed to provide consistent traveler information and similar levels of service

to achieve a higher degree of boundary transparency and improved mobility, as seen by the traveling public. These four states have initiated a single strategic planning effort to reach consensus on how best to link operational processes and data to maximize winter mobility in their I-80 corridor.

### Our Purpose

To provide better and more comprehensive I-80 corridor conditions information to both transportation agencies and to travelers.

Build an existing multi-state coordination efforts on I-80 and expand to include general road conditions information, consistent corridor-wide traveler information, proactive traffic management strategies, coordinated maintenance operations and potentially shared use of infrastructure near state boundaries.

Leverage state resources and tools to implement innovative solutions for winter operations as well as day-to-day corridor management.

### Coalition Objectives

1. Establish institutional structure for coordinating operations on I-80 in the western states.
2. Aggregate weather conditions information from multiple sources.
3. Identify traffic data collection capabilities

### Partners in the News

- [Economic Impact of Snowstorms](#)  
March 2010
- [Scientists Develop More Accurate Snow Forecasts](#)  
February 2010
- [When Roads Get Bad, Chain Crew](#)

### Our Partners



[www.i80coalition.com](http://www.i80coalition.com)



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