

Clarus Use Case 5: Enhanced Road Weather for Traveler Advisories

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Road Weather Management Stakeholder Meeting

Albuquerque, NM

Session 11: September 8, 2011

Functionality of the Tool

- Forecasts of pavement conditions up to 12 hours out
- Restricted to Interstates
- Integration of atmospheric conditions and road surface conditions, with presentation in looped view
- Multi-state view

What We Evaluated

- State DOTs' perceptions of usefulness of the tool
- State DOTs' interest in making further investments in the tool
- Travelers' perceptions of the tool's informational value
- Users' perception of enhancement to safety and mobility
- Drivers' decisions to adjust travel plans and behaviors in response to weather
- Value to long distance and cross-state travelers of the new information provided consistently across state boundaries

Evaluation Approach

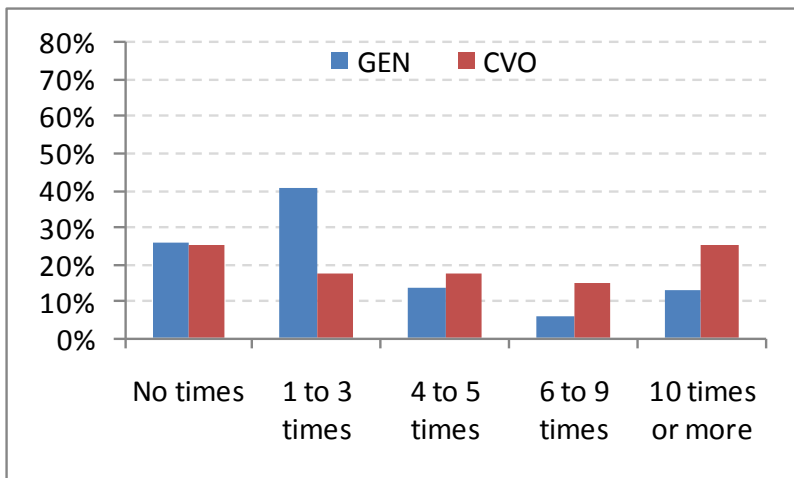
- Two focus groups in SD in early summer 2010 with general and commercial travelers regarding reactions to experimental website and 511
- Web surveys in ID, MT and ND Jan-Feb 2011 with 216 traveler information users to assess value/benefits/uses of new pavement condition forecasts
- Interviews with state DOT operators to assess how they used the tool in practice

Results Summary

- Focus Group Findings
 - Users say they value pavement condition forecasts
 - Users want demonstrated real-time accurate information on Wx
 - Visual images preferred; travelers like the radar loop (trend) forecast
 - Information on road closures critical; if road open, will go regardless
 - CVOs desire 12-24 hr advance Wx information for planning
 - **Uniformity of information across states is important to CVOs**
 - Would like ability to toggle through simplified, layered information

Results Summary

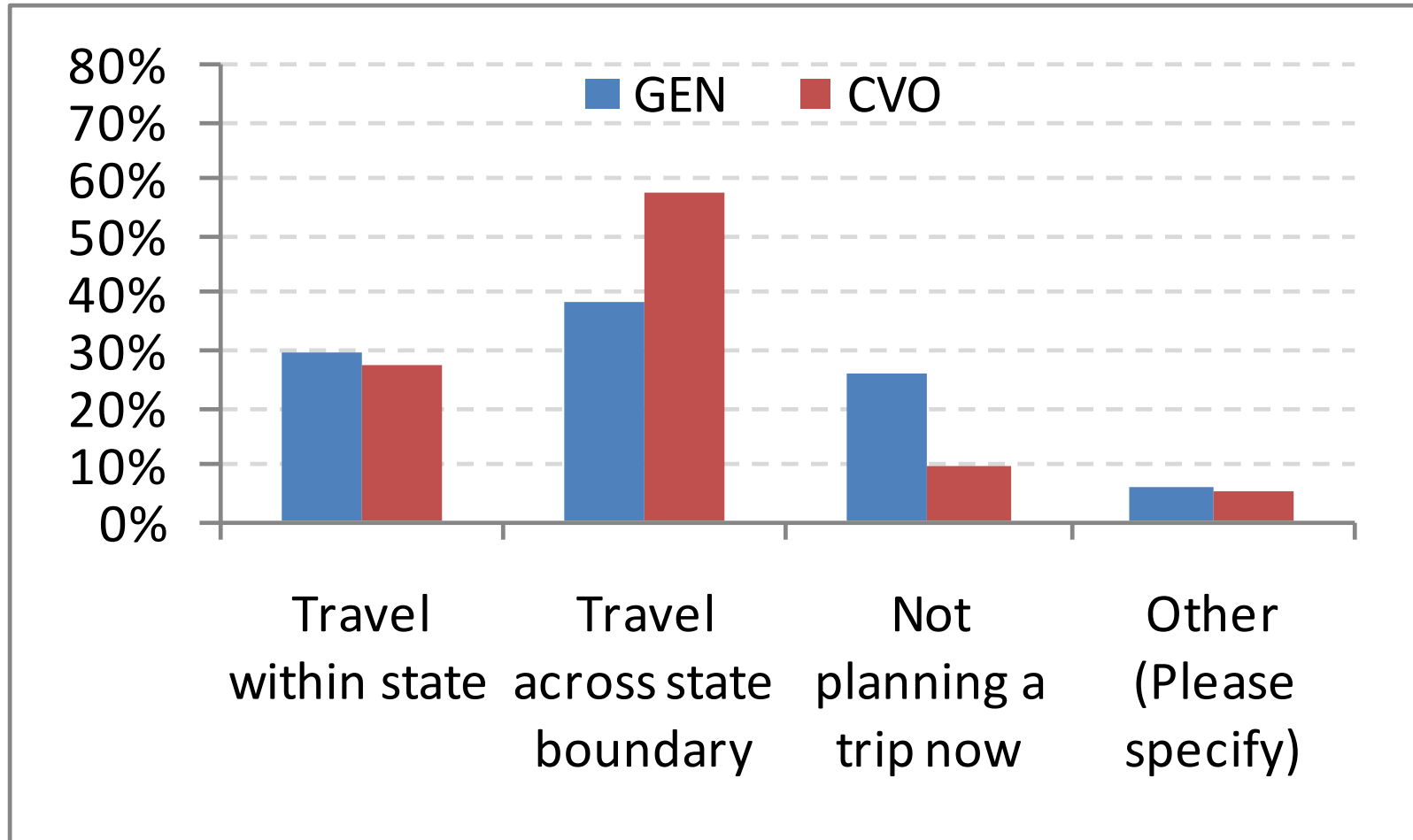
- Web survey results (216 responses)
- 58% visited website 10+ times in prior 30 days
- Number times used road weather information to change travel in prior 30 days?



74% of respondents say they are adjusting their travel plans or execution based on Wx information.

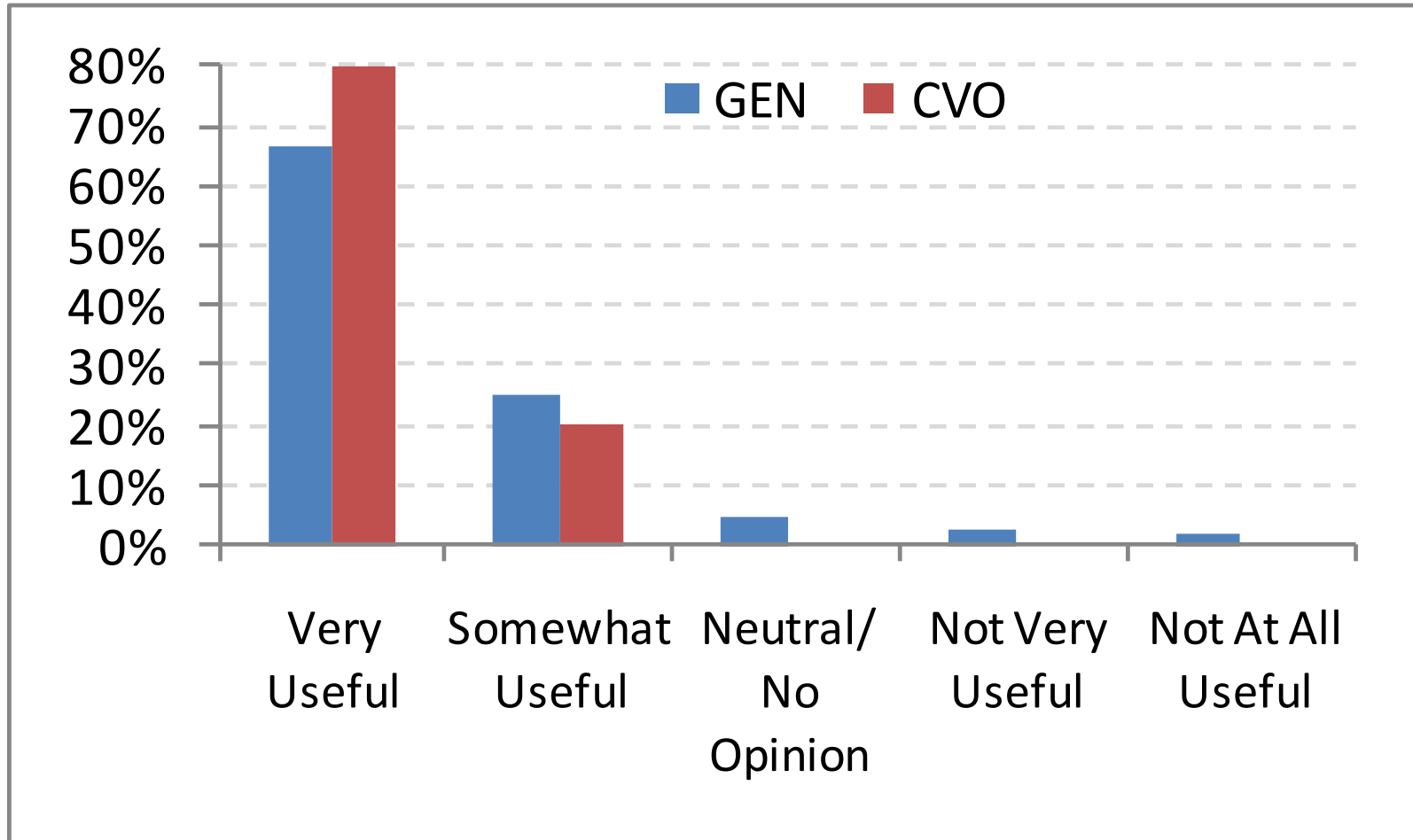
Results Summary

- Type of trip you are planning with this website visit?



Results Summary

- Usefulness of information across several states?



Results Summary (all respondents)

Agreement/Disagreement with Statement	Agree	Neutral or No Opinion	Disagree
The new pavement condition forecasts are a good addition to the regular website information.	83%	11%	6%
I would like our DOT to integrate this new forecast information permanently into the DOT's website.	78%	13%	9%
I am using the new pavement condition forecasts in deciding when and how to travel.	60%	28%	13%
I expect to change my trip plan (timing or routes) based on the forecast information obtained on this visit to the experimental website.	48%	34%	18%

Results Summary (all respondents)

How useful do you find this new website as a source for:	Useful	Neutral or No Opinion	Not Useful
Providing current pavement conditions?	87%	2%	10%
Helping me avoid hazardous routes?	86%	8%	6%
Helping me improve my preparedness for a driving trip?	86%	7%	7%
Providing forecast pavement conditions?	84%	8%	8%
Helping me decide whether or not to postpone or cancel a trip?	79%	15%	6%
Helping me decide between different possible routes?	77%	12%	11%
Providing a repeating loop image of conditions?	77%	21%	3%
Helping me decide when to start my trip?	75%	18%	7%

Selected Respondent Comments

- Include information for secondary routes, in addition to interstates [*most frequent comment*]
- “Average” web users will have difficulty getting through all the detail in the new site – simplify it.
- Will take time to build confidence in the forecasts.
- Information across multiple states is most useful. Add more adjacent states.
- Forecasts only to 12 hours not so useful for longer trips. Provide 2-3 days out.
- Turn this into an iPhone app.

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
- Forecasts over longer timeframe better for long trips
- Travelers want route options as conditions evolve
- Travelers want comparable information for their entire route
- Simplify the presentation and emphasize graphics over text

Panel Discussion: Multi-State / Multi-Jurisdiction Road Weather Information

- Vision of success, focusing on road weather
 - Where are we now?
 - Where would we like to be in 5-10 years?

Panel Members:

- Leon Osborne, Meridian
- Doug Galarus, WTI
- Tina Greenfield, Iowa DOT
- Denise Inda, Nevada DOT
- Theresa Bousliman, Montana DOT

Panel Discussion: Continued

- What needs to happen to get there?
 - Strategies for engaging stakeholders (state DOTs; vendors; travelers; others)
 - Road weather data & information requirements for multi-state travel
 - Effective dissemination methods & formats to present the information (need for standards?)
 - By corridor
 - By region
 - National
 - Costs/funding
 - Other gaps & challenges?

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