

Road Weather Information System Reference Data

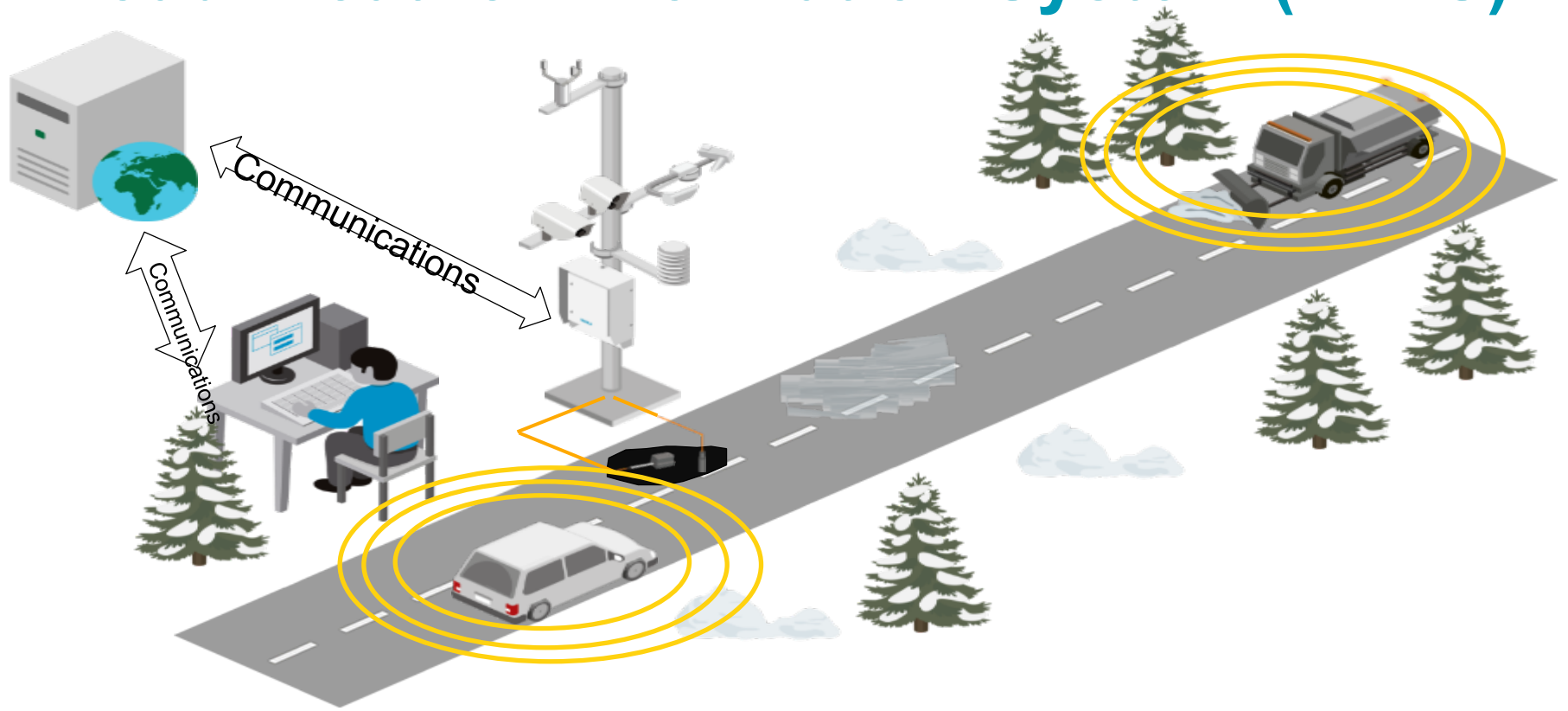
Paul Bridge
Danny Johns
SIRWEC 2016
Fort Collins

VAISALA

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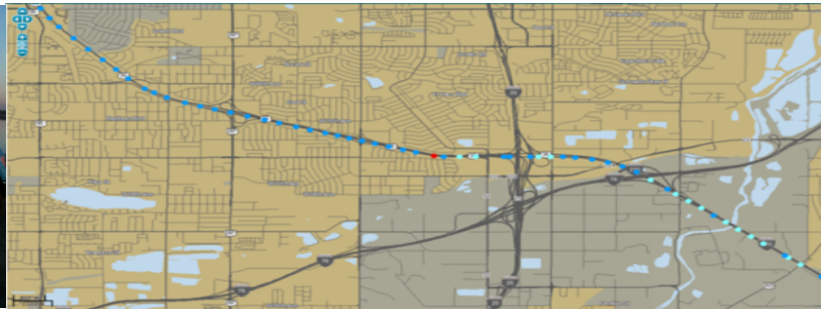
Road Weather Information System (RWIS)



Fixed sites versus connected vehicles?



- Expenditure - ROI
- Data type/quality
- Fit for purpose



Standalone advisory systems



- What about locations with little or no traffic?
- or relevant data i.e. constant speed?

- How quickly will all vehicles be suitably equipped?
- What data do we need?



Winter Performance Measures

- Based on objective and repeatable RWIS information
- High quality reliable data targeted at operational needs

Percent of Time Highways Clear of Snow/Ice During Winter Storms

Goal: Maintain at least 60% unimpeded mobility during winter storms.

Percent of Time Highways Clear of Snow/Ice During Winter Storms 2014/2015



Why This Is Important

Idaho travelers need safe and reliable highways during winter storms. Preventing the accumulation of snow and ice or quickly removing it from highways increases safety, mobility, and improves commerce.

How We Measure It

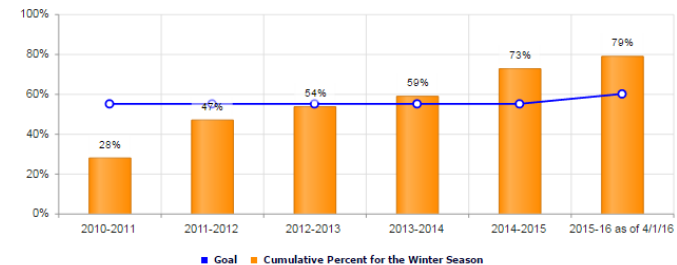
Idaho's 4,984 centerline miles of highways are broken down into 217 sections. Over 46% of these highway sections, including the most heavily traveled corridors, have automated roadway condition sensors and weather information stations located where travel is deemed to be highly impacted by winter storms--high elevation summits, steep grades, bridge overpasses, etc. This measure tracks the percent of time those highway sections with automated sensors and weather information stations are clear of ice and snow during winter storms.

What We're Doing About It

ITD is using this data from the automated roadway condition sensors and weather information stations to continuously improve the effectiveness of its winter maintenance efforts across the state. The Department accomplishes this by customizing snowplowing practices and de-icing treatments for all sections of Idaho highways.

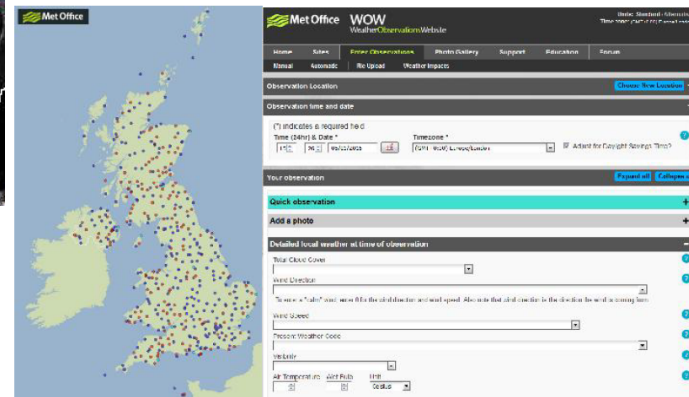
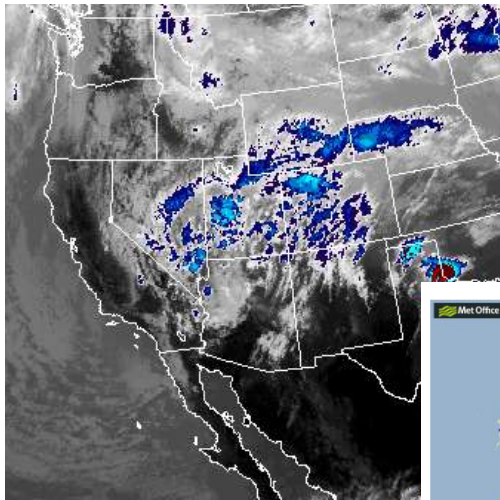
Percent of Time Highways Clear of Snow/Ice During Winter Storms

Target: Maintain at least 60% unimpeded mobility during winter storms.



Big (bigger) Data

- Synoptic
 - Satellite
 - Radio Sonde
 - Radar
- Quality
- Archive
 - Climate
 - Operations



- UK Met Office Synoptic Network and their Weather Observations Website where any member of the public can enter an observation.

Summary

Fixed Quality ESS is a critical piece of the overall system required for:

- Big Data Reference
- Standalone systems
- Performance Indicators
- Operational decisions



The background is a vibrant, abstract composition of blue and white. It features numerous thin, white, curved lines that sweep across the frame, creating a sense of motion and energy. There are also several bright, glowing spots and streaks of light, particularly on the left side, which add to the dynamic feel. The overall effect is that of a high-tech or digital environment. The text "Thank You" is centered in the lower right quadrant, rendered in a clean, white, sans-serif font.

Thank You