Outline

- Overview of Pathfinder
  - Introduction
  - Brief History

- Field Instrumentation
  - RWIS Sites
  - Devices Used

- Blowing Dust/High Wind Example
  - Coordination
  - Products Issued

- Public Messaging and Outreach
  - Effective Messaging
  - Unified Message
Pathfinder Collaboration

- Federal Government
- State Government
- Private Sector

**What Is Pathfinder?**
- Collaborative effort between NWS, state DOT’s & DOT contractors
- Sharing road weather information & forecasts
- Creating a unified message to the public regarding transportation impacts
“Not how much snow will fall but how that snow will impact roads”

**Overarching Message**

- **What**
  - Type of storm and how intense
- **When**
  - When will it impact the state
- **Where**
  - Highlight specific areas of travel concern

Provide tools to influence safe traveling behavior
Event Coordination & Response

- Pre-storm briefings 1-3 days prior to event
  - Based on expected level of impact

- Direct communication regarding impacts with nearby NWS offices

- Disseminate internal and public information ahead of and throughout winter storms

- Benefits wide variety of groups
What’s the impact?

- With a unified message and trusted channel to disseminate that information you can alter the public’s behavior and travel plans.

- Peak commute time shifted two hours prior to typical.

- Not just limited to snow events can be used for variety of expected weather impacts.
Largest trouble area is I-80 across Utah’s western desert and Salt Flats

Tends to be crosswind

10 permanent RWIS sites on I-80 between Salt Lake City and Nevada border

Localized problem areas due to terrain influence

Mesowest
RWIS/Field Instrumentation
Event occurred June 12, 2017

A total of 8 semi-trucks blew over on I-80, interstate was closed temporarily to all traffic

A situation not being sampled well by existing sensors

Significantly reduced visibility at time of incidents
338 AM MDT Mon Jun 12 2017... WIND ADVISORY IN EFFECT FROM 9 AM THIS MORNING TO 10 PM MDT THIS EVENING... The National Weather Service in Salt Lake City has issued a Wind Advisory...which is in effect from 9 AM this morning to 10 PM MDT this evening.

* AFFECTED AREA...The west central and southwest valleys of Utah, the Sanpete and Sevier valleys, the Great Salt lake Desert and Mountains, the Salt Lake and Tooele valleys, and the southern Wasatch Front.

* WINDS...Southerly winds 20 to 30 mph with gusts approaching 50 mph.
(10:39 AM) nws-steve.rogowski: **Would us issuing a high wind warning help here?** Can include stronger wording in it than a wind advisory. Thanks.

(10:41 AM) dot-scott.jensen: **Given the impacts we have seen so far** this morning I certainly don't think it could hurt from our perspective.

(10:42 AM) nws-steve.rogowski: OK, let me know what wording you want in there and **I'll take care of issuing a High Wind Warning for the west desert.**

(10:45 AM) dot-scott.jensen: **I would just be sure to mention strong cross winds affecting I-80, especially high profile vehicles of course.** Given the placement of the winds in the west desert there are not a lot of other routes we typically see impacts on.

(10:46 AM) nws-steve.rogowski: Perfect, thanks. Will be out in 5 minutes. We will tweet it too.

(10:47 AM) dot-scott.jensen: If it helps with justification for the warning we are now up to 7 blow-overs.

(10:47 AM) dot-scott.jensen: Appreciate the outreach!

(10:47 AM) nws-steve.rogowski: We appreciate the heads up on the blow overs
HIGH WIND WARNING IN EFFECT UNTIL 10 PM MDT THIS EVENING... The National Weather Service in Salt Lake City has issued a High Wind Warning...which is in effect until 10 PM MDT this evening. The Wind Advisory is no longer in effect.

• AFFECTED AREA...The West Desert including Interstate 80. * WINDS...Southwest winds 30 to 40 mph with gusts exceeding 60 mph at times.

• * TIMING...Strong southwest winds continuing through the afternoon and gradually diminishing this evening.

• * IMPACTS... Significant travel impacts are anticipated for high profile vehicles and those towing trailers, especially where crosswinds are enhanced on east-west routes including Interstate 80. Blowing dust will also create areas of reduced visibility this afternoon through early this evening. Wind sensitive operations will be impacted.

• For information on potential travel impacts visit... http://udottraffic.utah.gov/roadweatherforecast.aspx
Focus on the “message”, not the meteorology

“First, it should be understood that forecasts possess no intrinsic value. They acquire value through their ability to influence the decisions made by users of the forecasts” – Allan Murphy

Don’t instruct the public, give them tools and options to make the best decision themselves

Detail road specific impacts

Share plan of actions

- UDOT (outreach, products, etc.)
- NWS (suite of information services)

Not every situation is the same, messaging can vary based on area affected, confidence, duration etc.
**TravelWise Weather Highlights**

**Forecast Period:** 11:00 A.M. Friday through 11 P.M. Friday
**Updated:** 10:00 A.M., Thursday, May 18, 2016

- **S-SW Crosswind Gusts 45-65 mph and Blowing Dust**
- **S-SW wind gusts 50-60 mph and blowing dust**
- **S-SW wind gusts to 55-65+ mph**

**TravelWise Weather Highlights**

**Forecast Period:** Ongoing through 10 P.M. Thursday
**Updated:** 10:00 A.M., Thursday, April 13, 2017

- **Strong SW Winds followed by Strong NW Winds**
- **SW wind gusts 50-60 mph through 8pm THU**
- **Gusty SW winds 45-55 mph continue through 8pm THU**
- **Pockets of blowing dust causing reduced visibility**

**Color Coding:**
- **Low Caution:** Minimal to no weather-related travel concerns
- **Moderate Caution:** Minor/Intermittent weather-related travel concerns
- **High Caution:** Impaired travel expected
Be as specific as possible regarding impacts

Help the public to make the best decision

Give observations if possible

Update information as it changes
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