

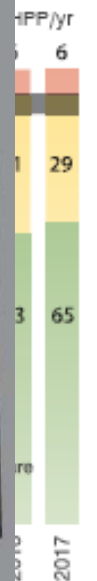
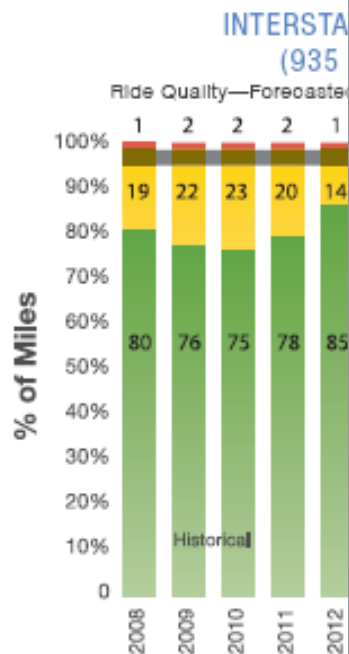
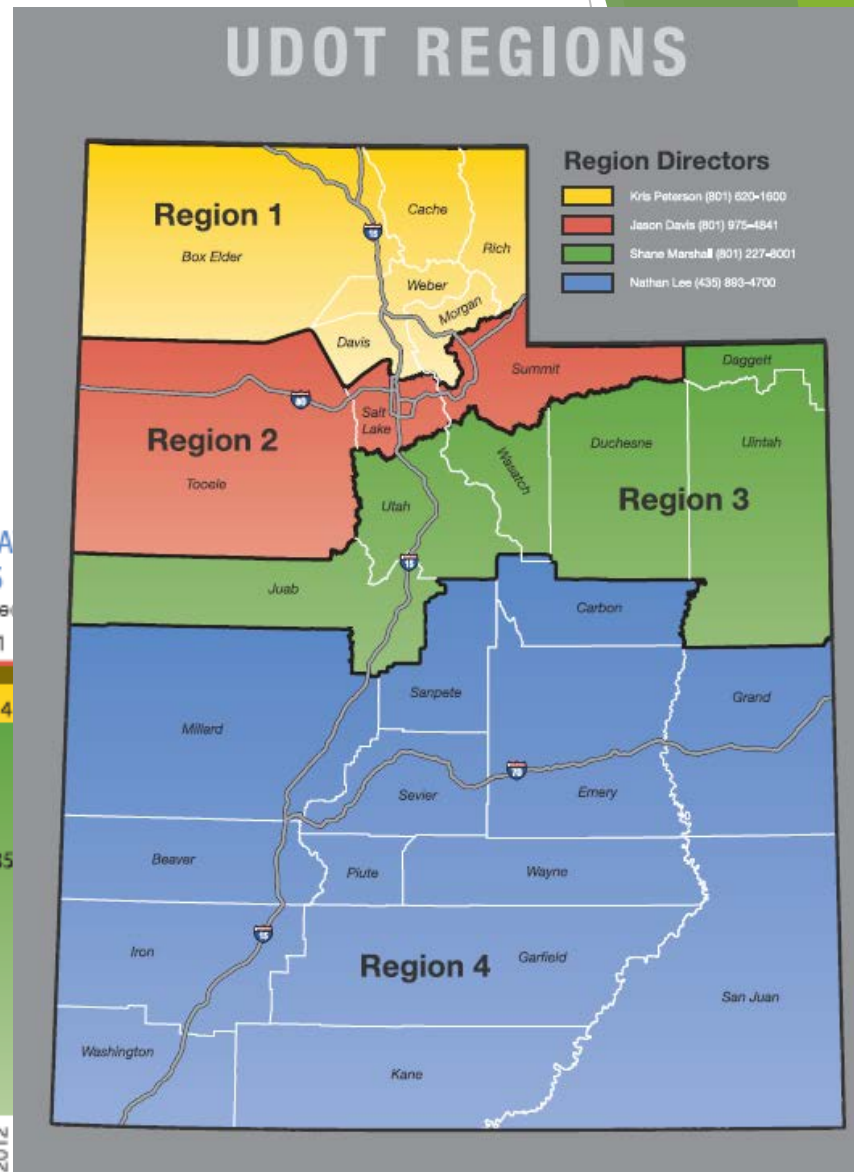


CITIZEN REPORTING

A UDOT Program

UDOT Strategic Direction

- ▶ Preserve Infrastructure
- ▶ Optimize Mobility
- ▶ Zero Fatalities, Crashes, Injuries





22 Ski Resorts That Get The Most Snow In The World

By *UnofficialNet.com* July 29, 2013

Historical Snowfall Statistics for ski resorts

Name of Resort	Country	annual snowfall in inches (in)	annual snowfall in meters (m)
Mt Baker Washington	USA	641	16.3
Mt Rainer Washington	USA	624	15.85
Alyeska	USA Alaska	600	15.24
Alta Utah	USA	520	13.2
Snowbird Utah	USA	500	12.7
Solitude Utah	USA	500	12.7
Jackson Hole Wyoming	USA	500	12.7
Kirkwood Mt	USA	473	12.0
Rasutsu	Japan	472	12.0
Stevens Pass Washington	USA	471	11.96
Sugar Bowl California	USA	464	11.78
Grand Targhee Wyoming	USA	463	11.76
Squaw Valley	USA	450	11.43
Niseko	Japan	433	11
Nagano	Japan	433	11
Hirafu	Japan	433	11
Mt Hood Meadows Oregon	USA	430	10.9
WhistlerBlackcombe	Canada	407	10.3
Banff	Canada	400	10.1
Big Sky	USA	400	10.1
Powder Mt Utah	USA	400	10.1
Whitewater BC	Canada	397	10.1
Boreal	USA	395	10.0
Crystal Creek Washington	USA	390	9.9
Mt Washington BC	Canada	383	9.7
Brighton Resort Utah	USA	381	9.67
Wolf Creek Colorado	USA	379	9.62
Chamonix	France	377	9.6
Winter Park	USA	369	9.4
Mammoth Calif	USA	367	9.32
Steamboat	USA	363	9.2
Fernie BC	Canada	360	9.1
Heavenly	USA	360	9.1
Canyons	USA	355	9.0
Park City Utah	USA	350	8.9
Jay Peak Vermont	USA	350	8.9
Mt Bachelor	USA	350	8.9
Vail Col	USA	346	8.8
Furano	Japan	315	8.0
Valle Nevado	Chile	311	7.9
Aspen	USA	300	7.6
Portillo	Chile	295	7.5

Rare On-The-Job Death For Avalanche Forecaster In Utah

APRIL 12, 2013 7:05 PM ET



HOWARD BERKES



Dale Atkins has been tracking hundreds of avalanche deaths for years but the fatality report that arrived from Utah Friday morning was especially shocking.

"It's way too close to home," says Atkins, the Colorado-based president of the [American Avalanche Association](#). "It's mind numbing...it's a slashing chill."

That's because the [sixteenth avalanche victim in the United States this winter](#) is Craig Patterson, 34, a seven-year veteran of avalanche forecasting for the Utah Department of Transportation. Investigators were still assessing the incident Friday but it appears Patterson was gauging snow conditions alone Thursday on a mountain slope known as [Kessler Slabs](#) above the Big Cottonwood Canyon highway outside Salt Lake City.

Colleagues concerned about his failure to return to his office called authorities and his body was spotted from a helicopter late Thursday. "A search found his body on the surface of the [avalanche] debris," reports Evelyn Lees of the [Utah Avalanche Center](#).

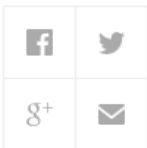
The highway carries thousands of skiers, ski industry workers and mountain homeowners and the steep slopes above it are prone to avalanches. Some reach the highway, which is sometimes closed after major snowstorms while highway workers literally bomb the slopes to release newly-fallen snow.



Craig Patterson, 34, a seven-year veteran of avalanche forecasting for the Utah Department of Transportation.

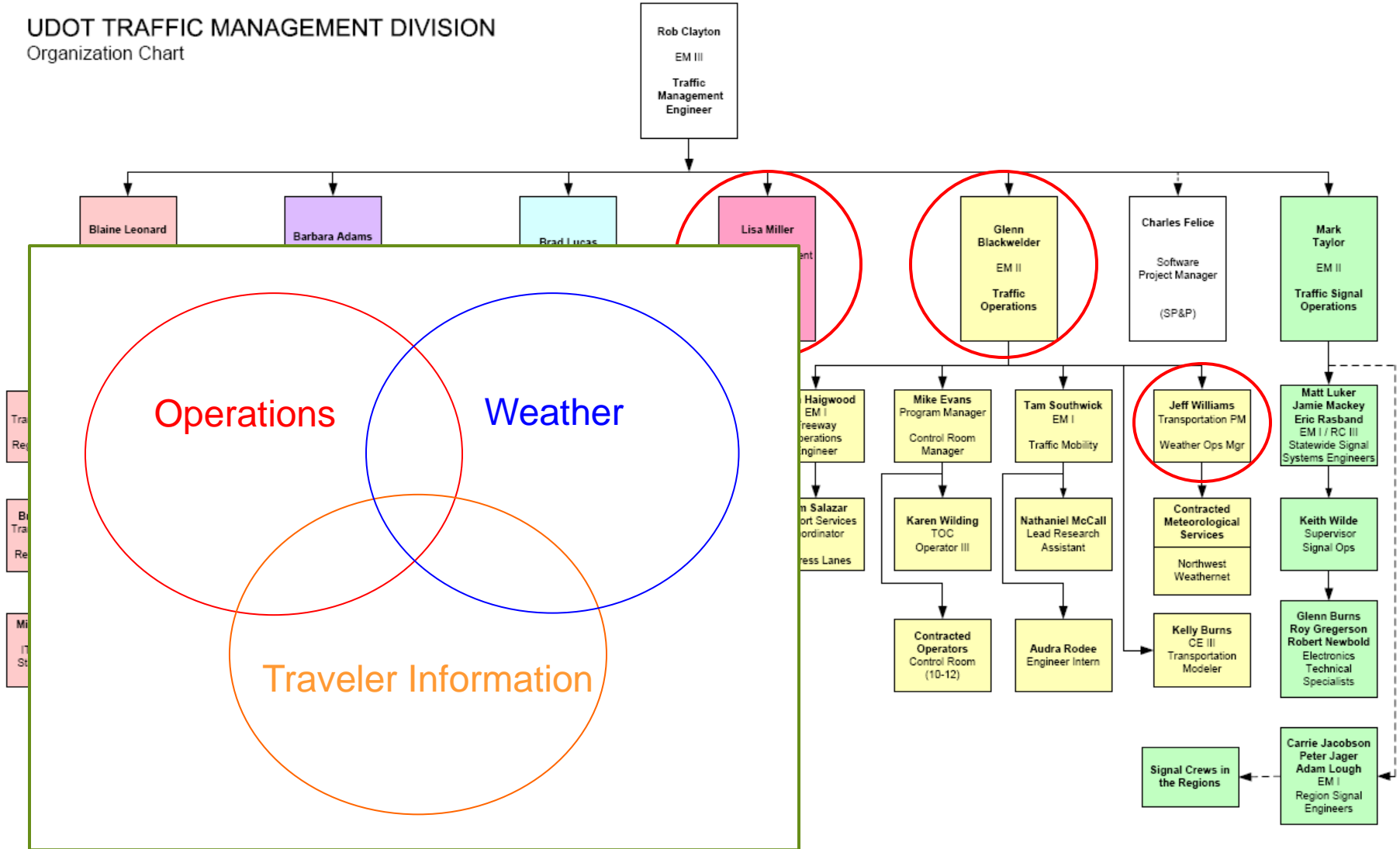
Utah Department of Transportation

SHARE

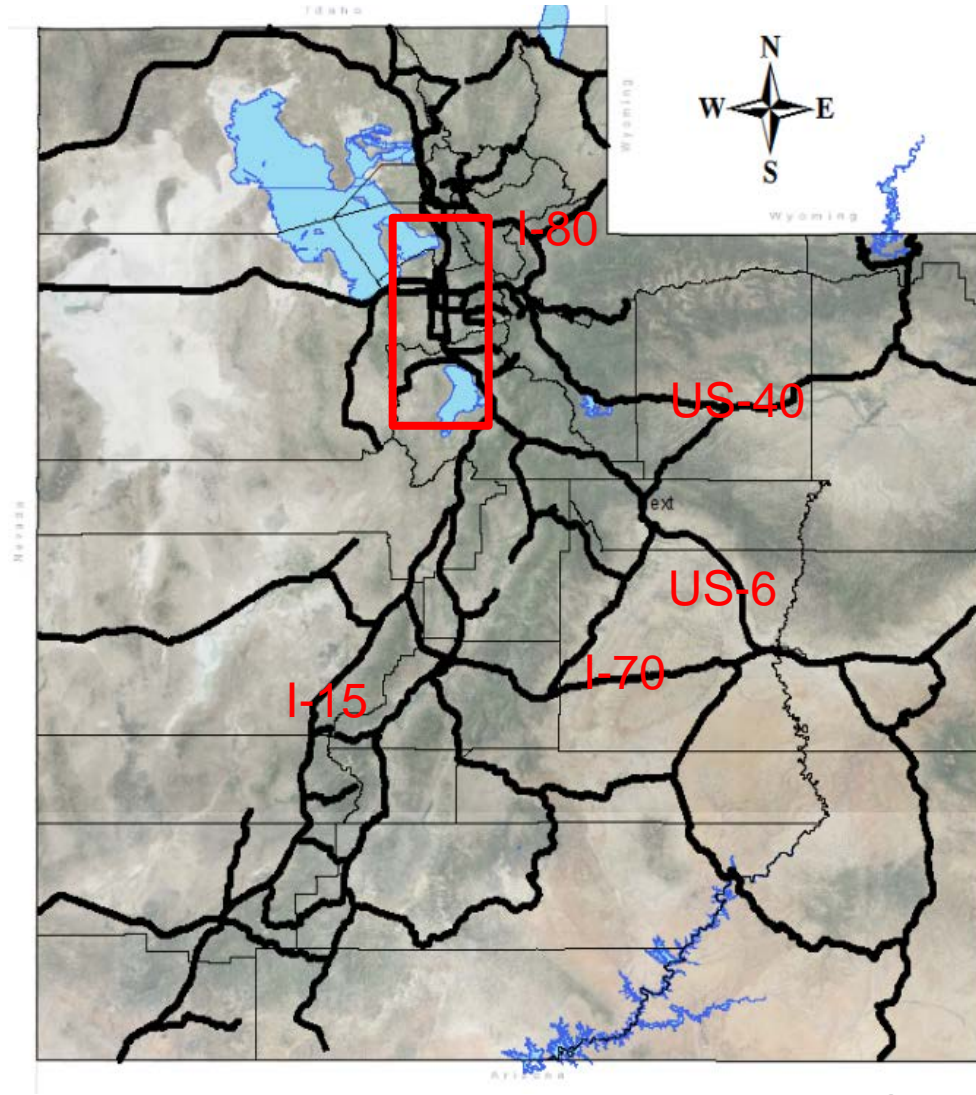


UDOT Traffic Management Division

UDOT TRAFFIC MANAGEMENT DIVISION
Organization Chart

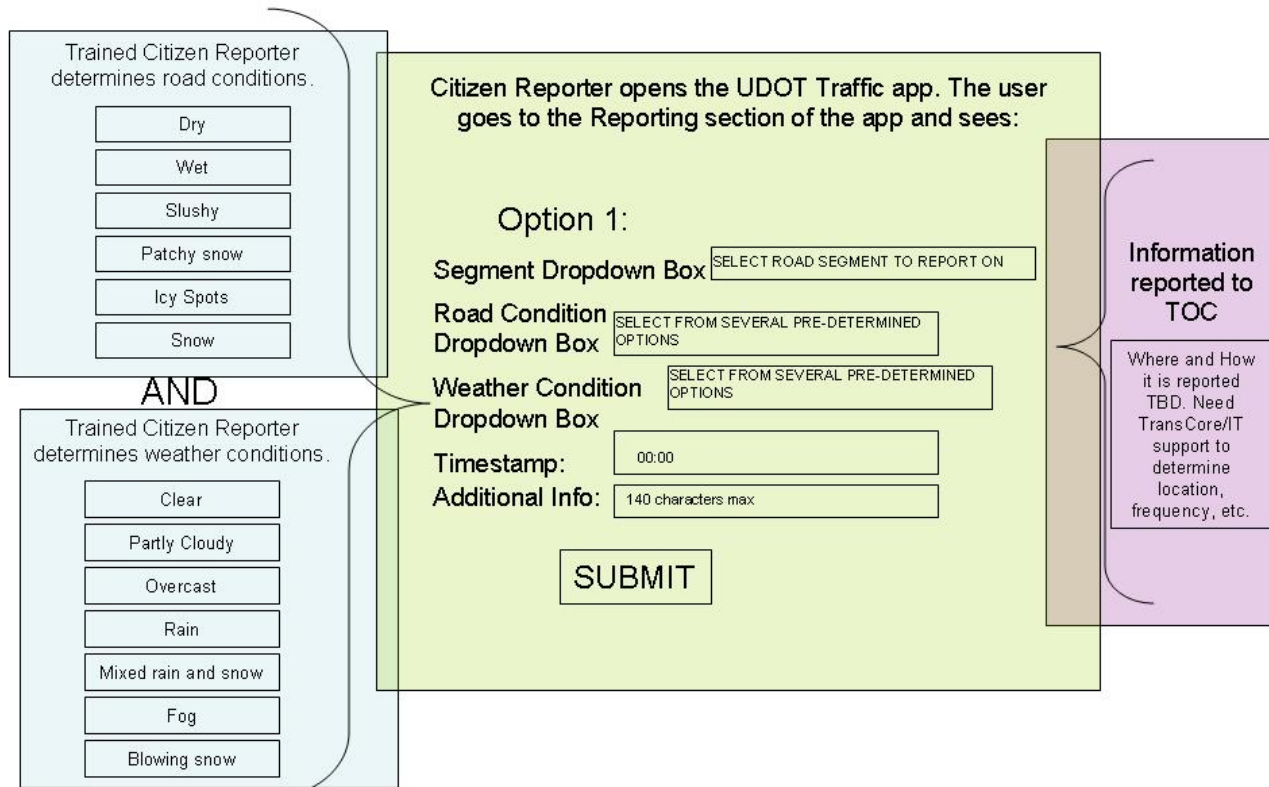


TATS Segments



The Citizen Reporter Program

UDOT Citizen Reporting Program Communications Diagram



◆ The goal of this Program is to allow trained Citizen Reporters to transmit road condition information (and possibly other information) to the UDOT TOC for inclusion into the TATS road reporting system.

Program Goals

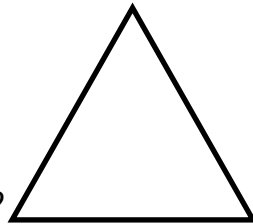
- To provide consistent, reliable, accurate and timely information concerning roadway conditions to the traveling public.
- The Utah Citizen Reporter Program allows trained members of the public to report road and weather conditions on any of our over 140 segments that we collect data on.
- During the winter months (November – April) UDOT will be using road condition and weather reports to supplement other reporting. This information will be used on the UDOT Traffic website, 511 phone system and UDOT Traffic app.
- This project is NOT for dispatching plow operators.
- This project IS for trained volunteers to assist UDOT by providing timely and accurate information based on their observations.



Pilot Year

Public Information Messaging Triangle

What Happened?
What is Happening?



How does it affect me?
What does the public
want to know?

What is UDOT doing to
help solve the problem?

Define
project
vision, goals
and
objectives

Explore
project
concepts

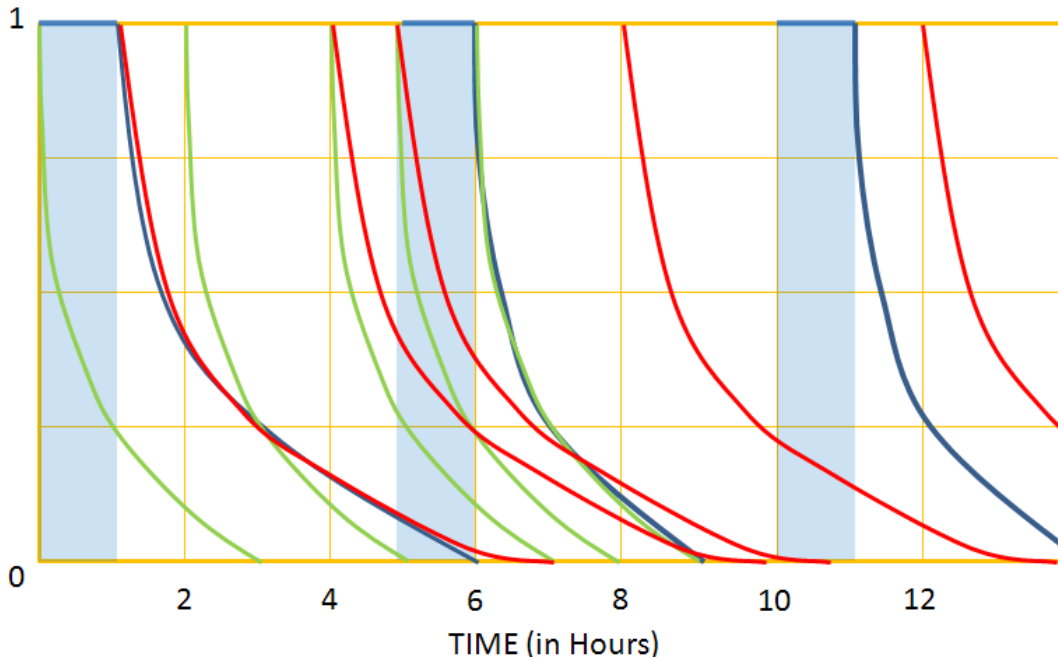
Develop
operational
scenarios

Develop and
document
the concept
of
operations

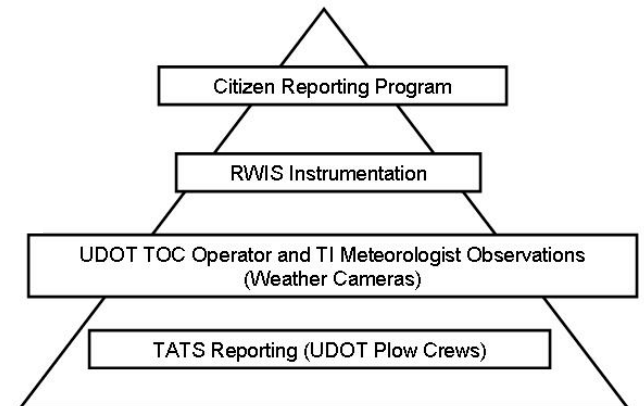
Logic

- TI Mets** (Reports valid for 6 hours have an exponential decrease to 0% and report expires. TI Met reports are never more valuable than a TATS report if they are reported at the same time.)
- TATS** (Reports valid for 1 hour then an exponential decrease to 6 hours when the report expires. TATS report have priority for 1 hour after reporting and are not overwritten by any other type of reporter)
- Citizen Reporters** (Reports valid for 3 hours and have an exponential decrease to 0% and report expires.)

Color that appears “on top” is the report that is used for the RYG (not including priority TATS report for 1 hour)



UDOT Weather Operations Program Data Input Sources



Public Facing Information

●●●○ Verizon LTE 11:53 AM

◀ Map Travel Advisory

I-15 Roy to Farmington

Road Condition **slushy**
 Weather Condition **snow**
 Restriction **none**

Updated 12/29/14, 11:43 AM

Map Alerts Weather Mtn Pass AIMS

- Farmington
- Ogden
- Park City
- New Mexico
- Wyoming

Current Road Conditions

Show Cameras Hide Reported Show RWIS Show Mountain Passes

I-15 Orem to Provo
 Road Surface : snow covered
 Weather : clear
 Restrictions : none
 Last Updated : 10/23/2013 3:08 PM

	Degree of caution	Weather Impact on Travel	
GREEN	Low	Minimal	Normal Caution
YELLOW	Moderate	Minor/intermittent weather related road concerns anticipated	Monitor 511, UDOT Traffic Web page and NWS Weather Forecasts

1200 - 50 MAIN RICHFIELD

udot.utah.gov 03:17PM 10/23

Richfield

Main St SR118 SR120 @ 1300 S SR120 RFD

Incidents

There are no active incident(s) to report at this time.

There are no active planned event(s) to report at this time.

Weather Service Forecast

Tonight Thursday

Mostly Clear, Low 44 Mostly Sunny, High 66

Salt Lake City

National Weather Service

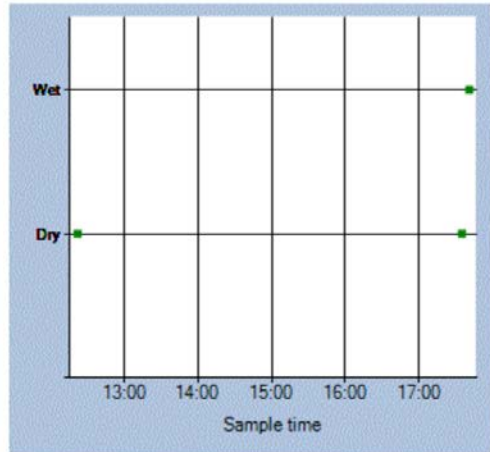


Map Travel Advisory

SR-154 Bangerter Highway

Road Condition **dry**
Weather Condition **overcast**
Restriction **none**

Updated 11/20/13, 5:40 PM

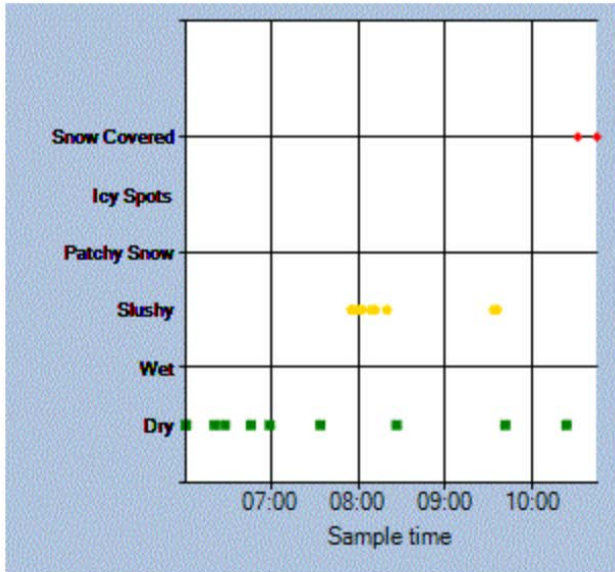


Map Travel Advisory

I-15 Point of the Mountain to Orem

Road Condition **snow covered**
Weather Condition **snow**
Restriction **none**

Updated 12/29/14, 11:43 AM

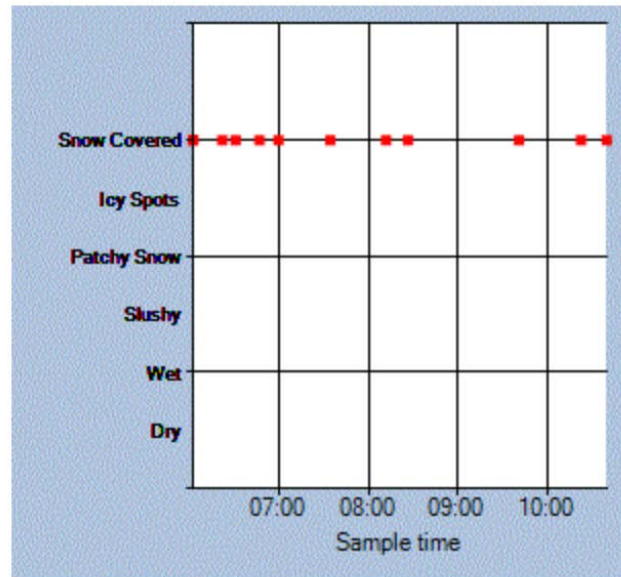


Map Travel Advisory

SR-67 Legacy Pkwy

Road Condition **snow covered**
Weather Condition **snow**
Restriction **none**

Updated 12/29/14, 11:44 AM



Training Program

- Introduction and Thank You
- Wyoming ECAR Program
- Reporter Selection Process/Criteria
- Program Goals
- Types of Road Users in Utah
- Safety!
- Type of Information to Report
- Definitions of Road Conditions
- Definitions of Weather Conditions
- UDOT Winter Operations information
- Driving Safe around Plows
- The Citizen Reporting app



The Reporting App

Verizon 3:07 PM

UDOT Citizen Report

Where and When

SR-201 Salt Air to Salt Lake

Report Time 10/16/13, 1:25 PM

Conditions

Road Dry

Weather Partly Cloudy

Comments

(Tap to enter additional info)

Submit

Verizon 3:07 PM

Select Segment

- SR-20 I-15 to Top of Bear Valley
- SR-201 Salt Air to Salt Lake ✓
- SR-210 Lower Little Cottonwood Canyon
- SR-210 Upper Little Cottonwood Canyon
- SR-224 Kimball Jct to Park City
- SR-224 Park City to On
- SR-226 to Snowbasin
- SR-24 Hanksville to I-7
- SR-24 Loa to Hanksvill
- SR-24 Richfield to Loa
- SR-248 Quinns Jct to K

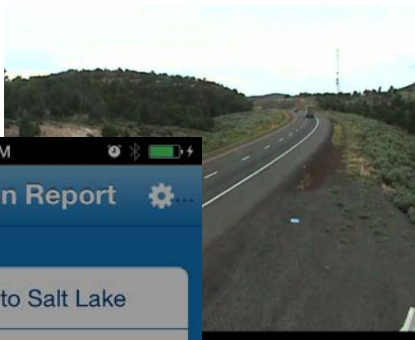
Verizon 3:08 PM

Examples

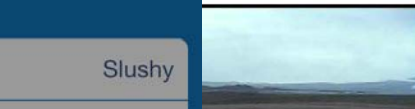
Road Conditions

The following images present examples of road conditions.

Dry



Wet



Verizon 3:08 PM

Weather Condition

- Clear
- Partly Cloudy ✓
- Overcast
- Rain
- Mixed Rain And Snow
- Snow
- Fog
- Blowing Snow

Examples

Verizon 3:08 PM

UDOT Citizen Report

Where and When

SR-201 Salt Air to Salt Lake

Report Time 10/16/13, 1:25 PM

Conditions

Road Slushy

Weather Partly Cloudy

Comments

Submit report for SR-201 Salt Air to Salt Lake?
Road: Slushy
Weather: Partly Cloudy

Submit

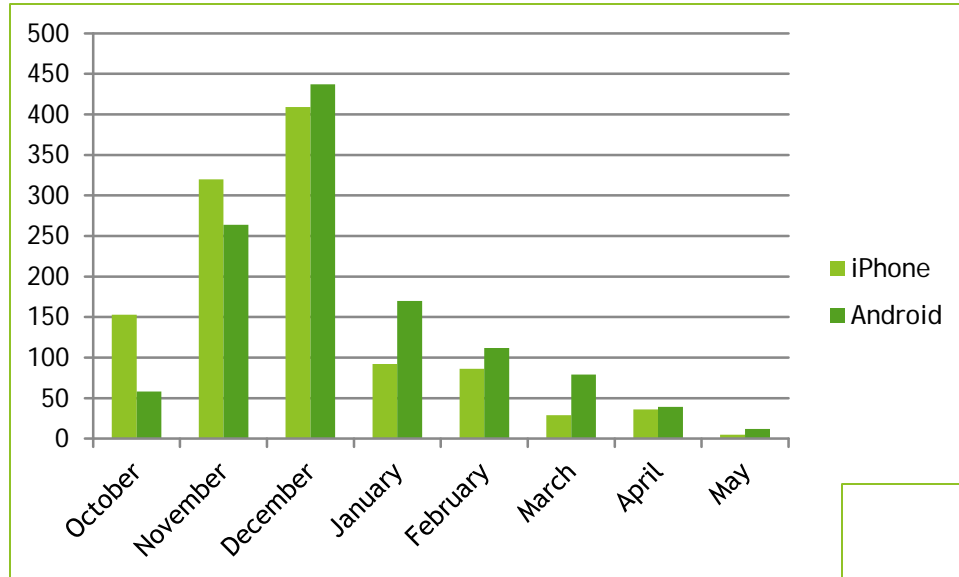
Cancel

Statistics

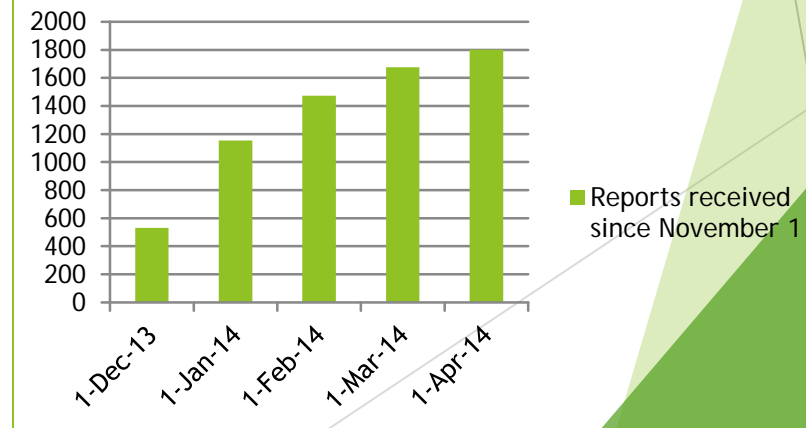
- Pilot Program launched winter 2012-2013
 - 100 UDOT employee reporters
- Program launched to the public winter 2013-2014
 - End of season, 475 reporters
 - 135 of 145 routes covered by at least 1 reporter
 - 0.03% of reports submitted were determined to be inaccurate
 - Over 1800 reports submitted
- 2014 – 2015 Statistics
 - End of season, 600 reporters
 - 142 of 145 routes covered by at least 1 reporter
 - 0.04% of reports submitted were determined to be inaccurate
 - Over 3200 reports submitted

Statistics

Citizen Reporter App downloads by month



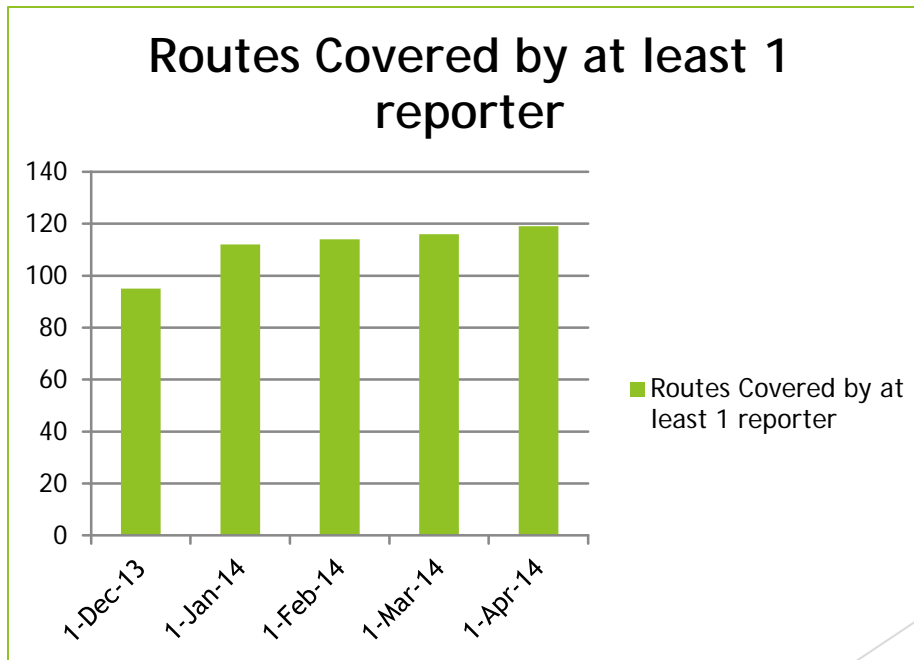
Reports received since November 1



Statistics

Citizen Reporter Inaccurate Report Percentages

Month	Reports received since November 1	Flagged as inaccurate	% inaccurate
Apr-14	1802	32	1.78%
Mar-14	1677	9	0.54%
Feb-14	1473	9	0.61%
Jan-14	1154	5	0.43%
Dec-13	531	2	0.38%



FAQ

- Are you going to expand the program to allow reporters to submit other data?
- How do you encourage reporters to not use the app while driving?
- Are you concerned about unfiltered data going to the public?

To Become a UDOT Citizen Reporter

- Take the online training:
www.udottraffic.utah.gov/training/citizenreporter
- Download the free reporting app from your app store (Search for “UDOT Citizen Report”)



Questions?

Weather plays a role in
25% of all crashes.

The annual cost of weather-
related crashes is
\$42 Billion.

On average, in weather-related
crashes each year:
7,400 people are killed
629,000 people are injured.

Weather causes **25%** of all non-
recurring congestion delays.
The total delay is about
5 billion hours per year.

Source: WRTM CITE Course

Lisa Miller

Utah Department of Transportation
Traveler Information Manager

lisamiller@utah.gov

(801) 887-3761

