



CITIZEN REPORTING

A UDOT Program

Utah Department of Transportation (UDOT) Citizen Reporting Program



PHOTO COURTESY UDOT

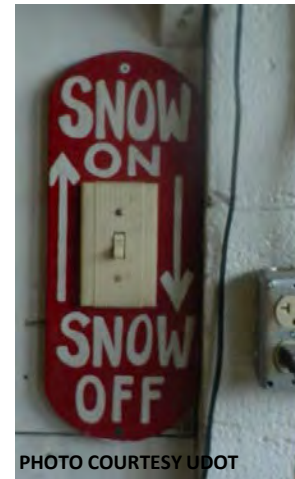


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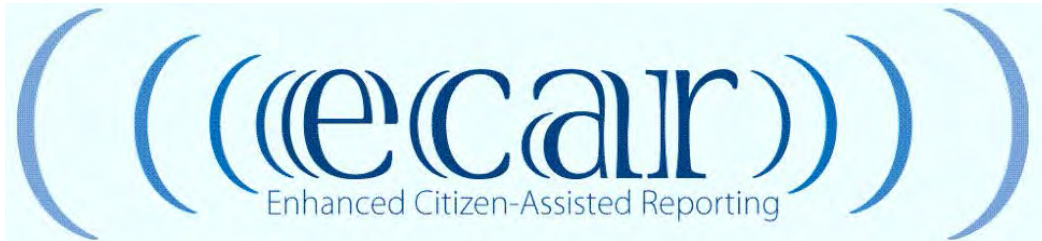
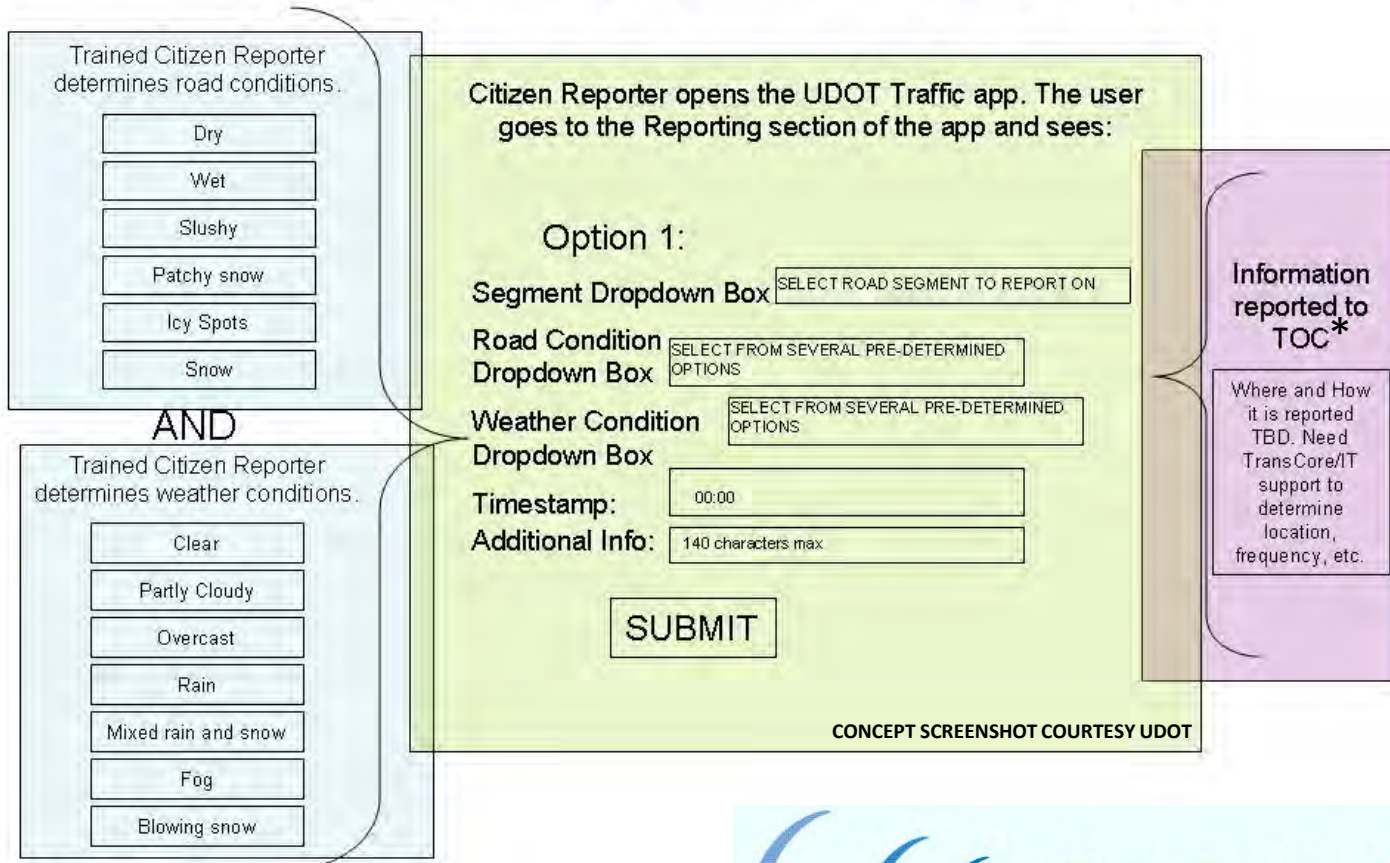


TRAFFIC MANAGEMENT DIVISION



The Citizen Reporter Program

UDOT Citizen Reporting Program Communications Diagram



*(Traffic Operations Center)

Project Timeline

Concept of Operations Development – Summer 2012

UDOT discussions with Wyoming Department of Transportation – Summer/Fall 2012

Federal Highway Administration request to partner – Winter 2012

Reporting app development – Summer 2012

App internal soft launch – Winter 2012

Logic completed – Summer 2013

Public launch – Fall 2013

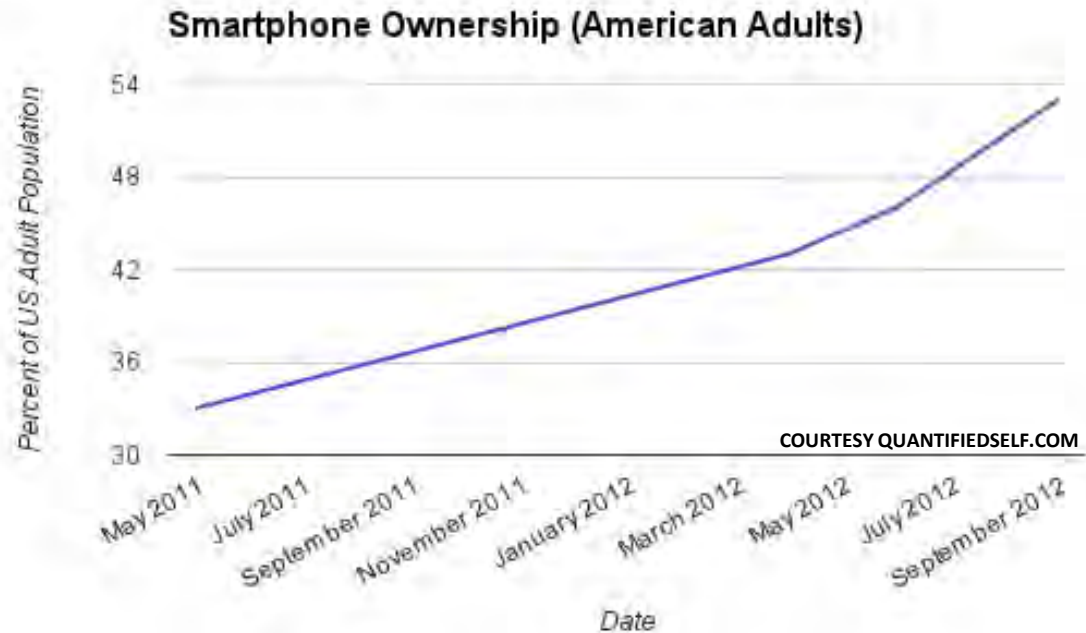
Public survey – Summer 2014

Data share with National Weather Service – Spring 2015

App enhancements – Summer 2015

Need

- Forecast updates every 6 hours left drivers wanting more updated information
- Citizens/truck drivers were reporting unofficially through social media and by calling dispatch centers
- Limited resources and a greater need for data
- Prevalence of smartphones

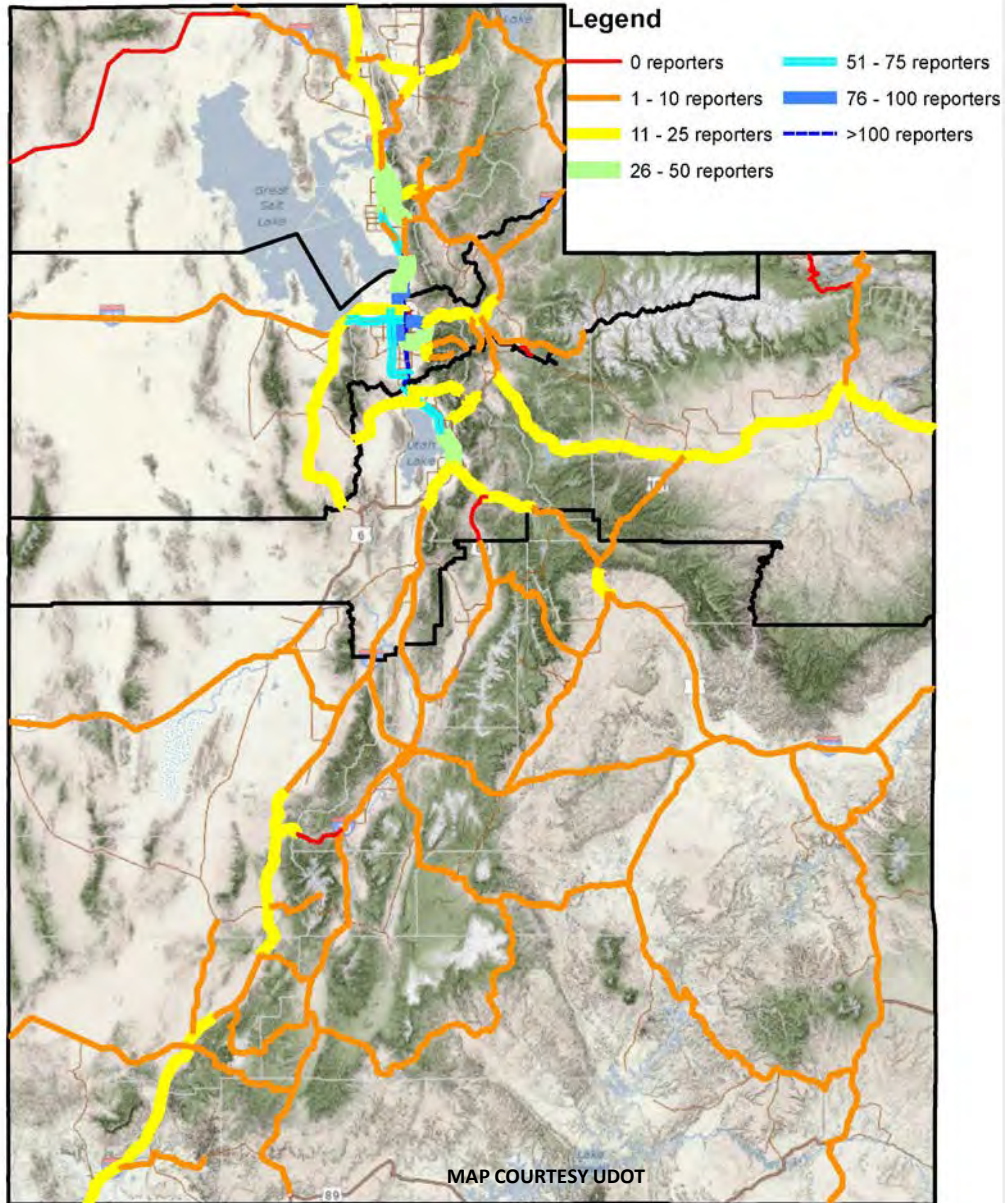


Program Goals

- 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.



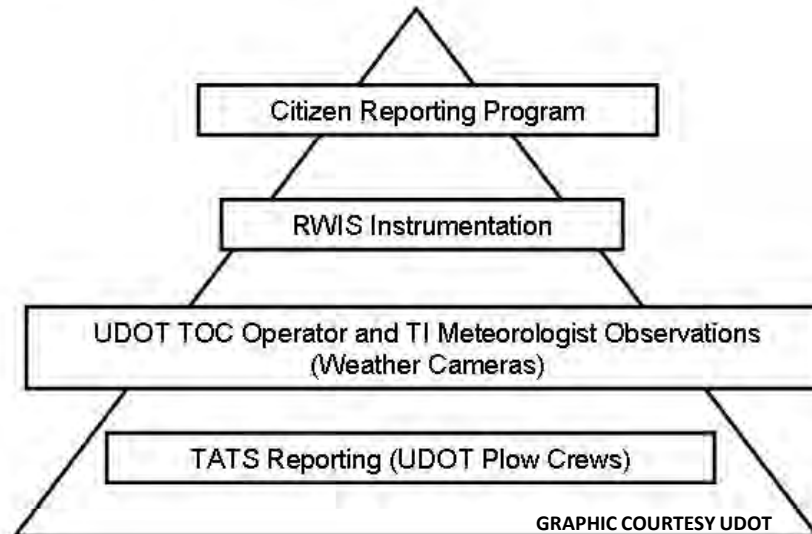
Road Reporting Segments



Logic

- Logic determines a “decay rate” for each type of reporter:
 - UDOT Plow Crew reports are the most heavily used report for one hour and then decay over a period of six hours
 - UDOT Traveler Information Meteorologist reports decay over a period of six hours
 - Citizen Reporter reports decay over a period of three hours

UDOT Weather Operations Program Data Input Sources



RWIS – Road Weather Information System
TI – Traveler Information
TATS – Traffic Advisory Telephone Service

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 Forecast

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: Mostly Clear, Low 44
 Thursday: Mostly Sunny, High 66

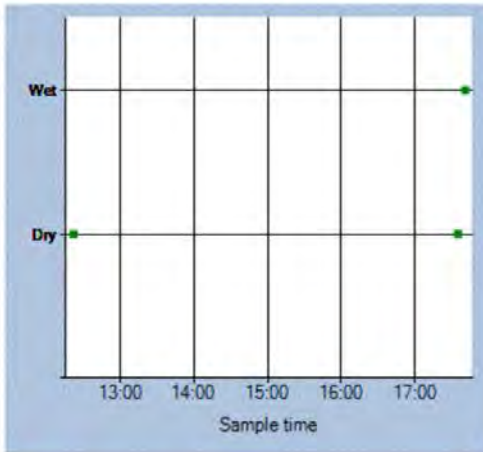
Salt Lake City

National Weather Service

SR-154 Bangerter Highway

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

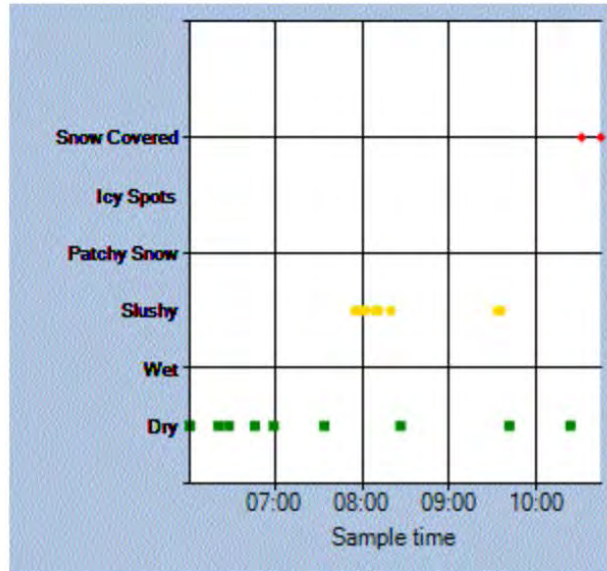
Updated 11/20/13, 5:40 PM



I-15 Point of the Mountain to Orem

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

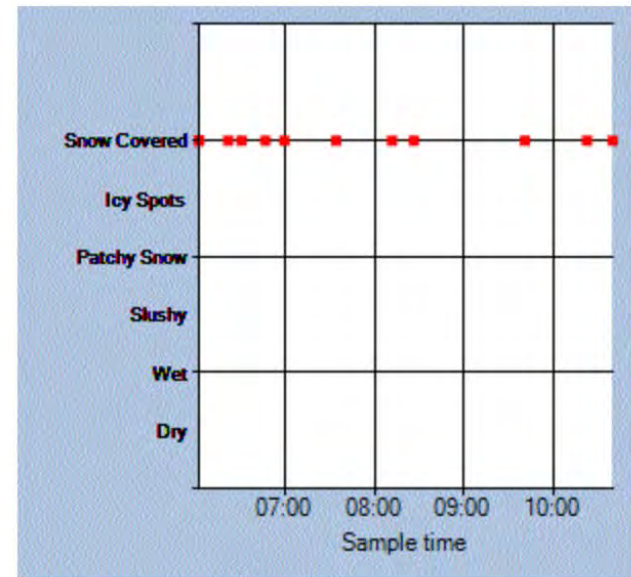
Updated 12/29/14, 11:43 AM



SR-67 Legacy Pkwy

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

Updated 12/29/14, 11:44 AM

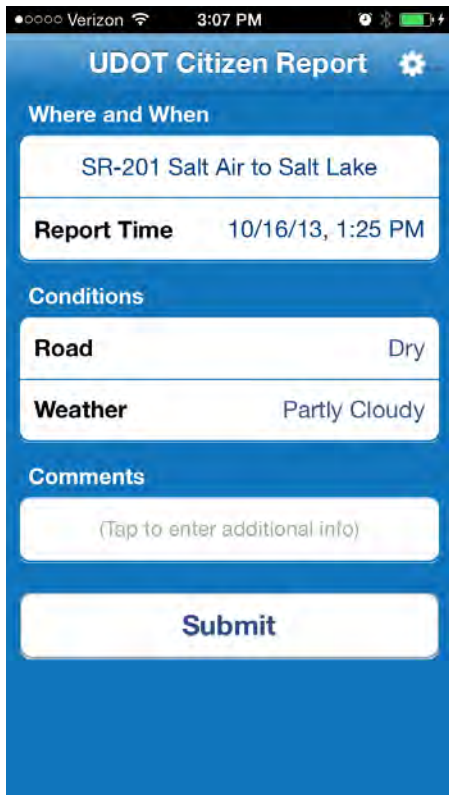


Training Program Methodology

- To ensure that all reporters are using the same baseline for each condition
- To stress that reports should not be submitted while driving
- To “weed out” casual users in an attempt to get better quality data



The Reporting App



UDOT Citizen Report ⚙️

Where and When

SR-201 Salt Air to Salt Lake

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

Conditions

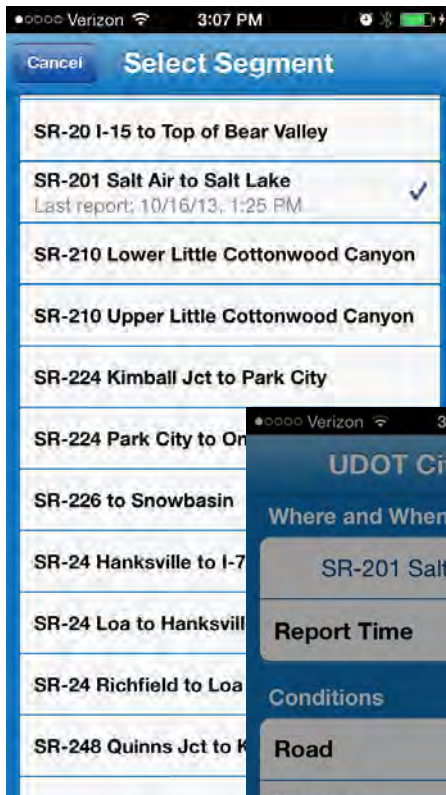
Road Dry

Weather Partly Cloudy

Comments

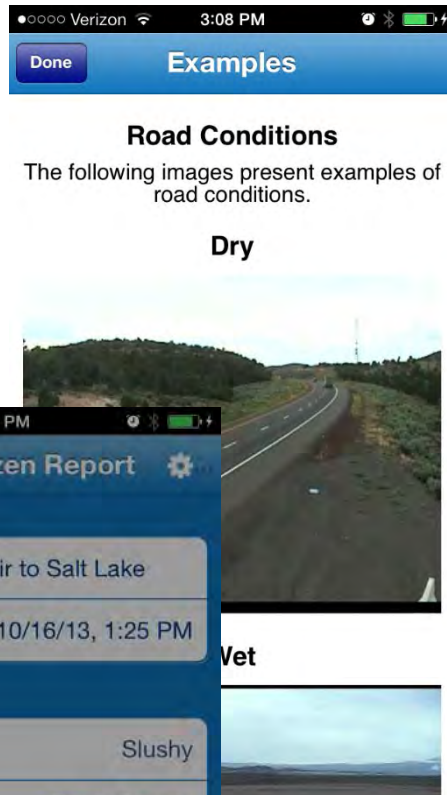
(Tap to enter additional info)

Submit



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 Or
- 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

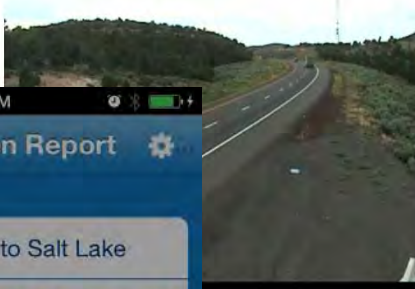


Examples

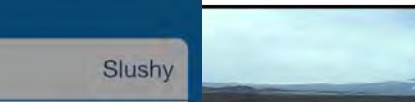
Road Conditions

The following images present examples of road conditions.

Dry



Slushy



Weather Condition

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

Examples



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

Validating Data



Road Segment Conditions Update

Location: Search

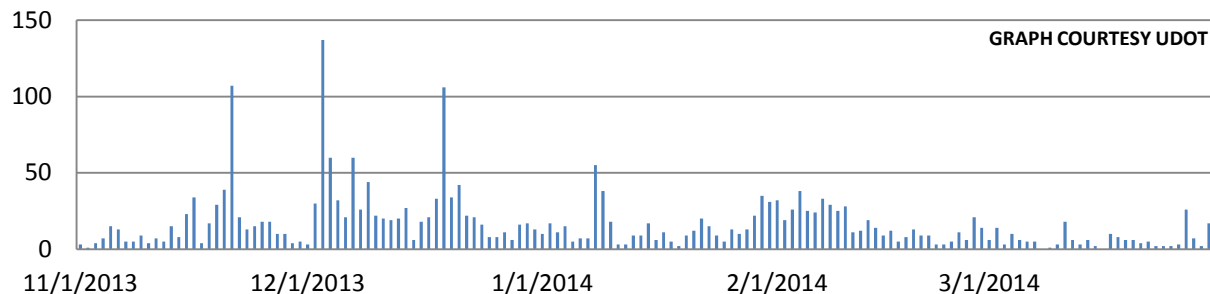
1 2 3 4 5 6

Segment ID	Location	Road Condition	Weather	Restriction	Crews Working	Entry Time	Last Weather Update
1	I-15 Idaho Stateline to Tremonton	dry	clear	none	No	11/18/2013 12:04:20 PM	11/18/2013 07:25:24.34
3	I-15 Tremonton to Jct SR-240 at Honeyville	dry	clear	none	No	11/18/2013 12:04:20 PM	11/18/2013 07:25:24.373
	Entry Time	Road Condition Time	Road Condition	Weather	Comments	Rating	
	11/18/2013 08:16:02.807	11/18/2013 8:16:00 AM	dry	clear		<input type="radio"/> Not Helpful	
5	I-15 Honeyville to Box Elder/Weber Co Ln	dry	clear	none	No	11/18/2013 12:04:18 PM	11/18/2013 07:25:24.39
	Entry Time	Road Condition Time	Road Condition	Weather	Comments	Rating	
	11/18/2013 08:16:33.497	11/18/2013 8:16:00 AM	dry	clear		<input type="radio"/> Not Helpful	
7	I-15 Box Elder/Weber Co Ln to Roy	dry	partly cloudy	none	No	11/18/2013 12:04:16 PM	11/18/2013 07:25:24.42
9	I-15 Roy to Farmington	dry	overcast	none	No	11/18/2013 12:04:38 PM	11/18/2013 07:25:24.44
11	I-15 Farmington South through Salt Lake	dry	overcast	none	No	11/18/2013 12:04:38 PM	11/18/2013 07:25:24.47
	Entry Time	Road Condition Time	Road Condition	Weather	Comments	Rating	
	11/18/2013 07:37:05.29	11/18/2013 7:37:00 AM	dry	clear		<input type="radio"/> Not Helpful	
13	I-15 Point of the Mountain	dry	clear	none	No	11/18/2013 12:04:38 PM	11/18/2013 07:25:24.507
	Entry Time	Road Condition Time	Road Condition	Weather	Comments	Rating	
	11/18/2013 08:51:43.25	11/18/2013 8:35:00 AM	dry	clear		<input type="radio"/> Not Helpful	
15	I-15 Point of the Mountain to Orem	dry	clear	none	No	11/18/2013 12:04:39 PM	11/18/2013 07:25:24.53
17	I-15 Orem to Provo	dry	partly cloudy	none	No	11/18/2013 12:04:39 PM	11/18/2013 07:25:24.55
	Entry Time	Road Condition Time	Road Condition	Weather	Comments	Rating	
	11/18/2013 11:43:57.56	11/18/2013 11:43:00 AM	dry	partly cloudy		<input type="radio"/> Not Helpful	

Statistics

- Pilot Program launched winter 2012-2013 with 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

Reports received by day

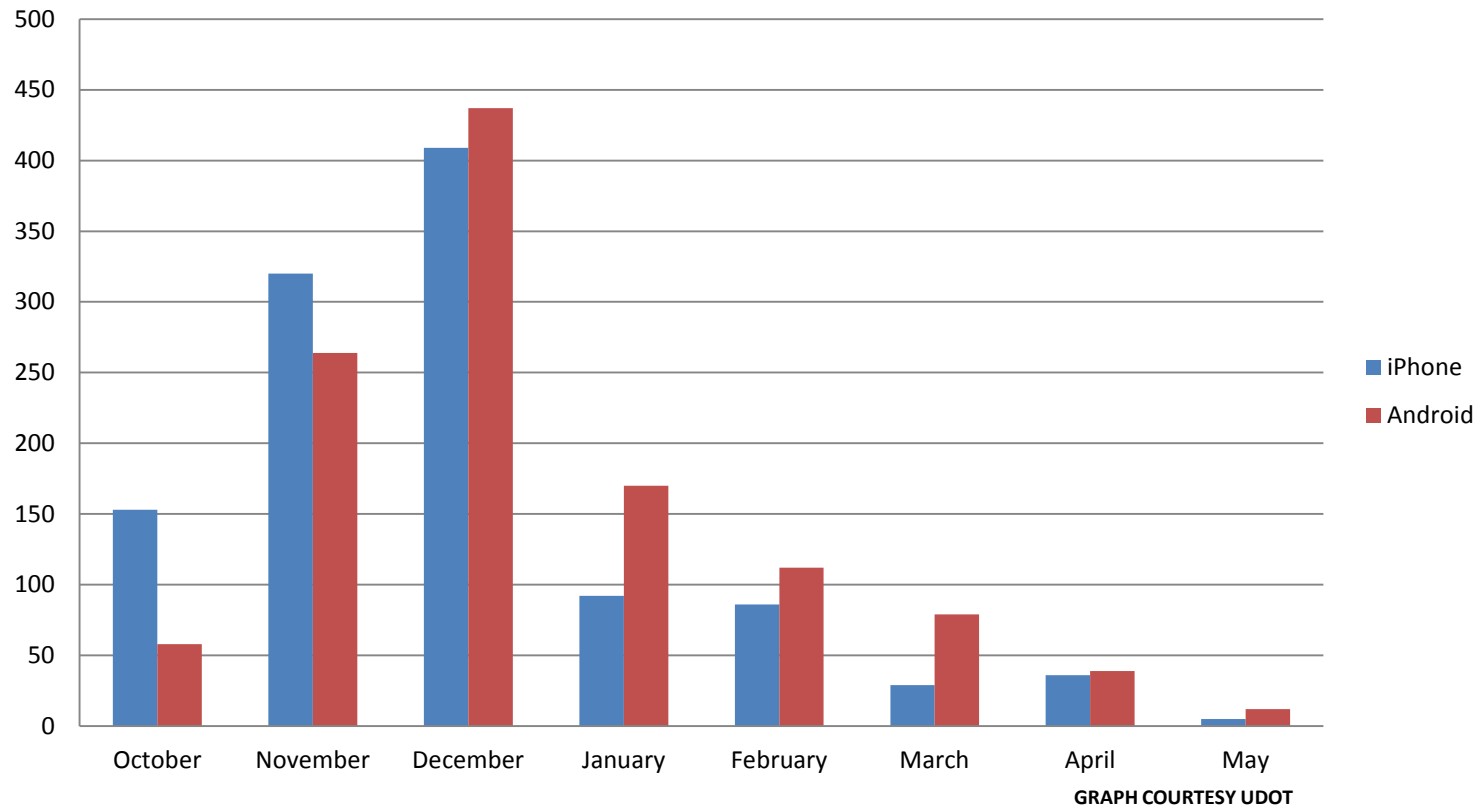


Lessons Learned

- Ensure complete outreach to internal partners/stakeholders
- Make training available through the reporting app
- Utilize “free” media and social media outreach

Citizen Reporter App Downloads

(Total 2301)



Thank You!

- Take the online training: www.udottraffic.utah.gov/training/citizenreporter
- Download the free reporting app from your app store
(Search for “UDOT Citizen Report”)
- Corey Coulam
(801) 887-3709
udotcitizenreporter@utah.gov



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A UDOT Program 15