Outline

• UDOT Strategic Direction
• The UDOT Traffic Management Division
• Citizen Reporter Program
  – Pilot Year Goals and Lessons Learned
  – Current and Future Efforts
  – Training Plan
  – Project Evaluation

UDOT Weather Operations Room
UDOT Strategic Direction

- Preserve Infrastructure
- Optimize Mobility
- Zero Fatalities
- Strengthen the Economy

- New Executive Director
- Population Growth
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.
TATS Segments
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

Source: WRTM CITE Course
WRTM CITE Course

Traffic and Weather Data Collection and Integration

WRTM rests on a foundation of good data. It relies on quality-checked, actionable data from multiple sources. It is hard to manage a system without adequate situational awareness of conditions. Six different categories of data are relevant to WRTM. Mouse over each bullet for more information.

- Traffic Stream and Event Data
- Weather Data
- Pavement Condition Data
- Asset/Infrastructure Data
- Other Partner’s Data
- Customer Feedback/Observation Data

Behavioral/Human Factors Analysis

Unless the content, format, and timing of available weather information is consistent with what travelers need, want, and will use, then such information may not be useful and—in certain situations—may even lead to reduced mobility, as well as unsafe driving decisions and behaviors.

Understanding how travelers consume and react to weather condition information is important to develop the right messages for the travelling public.

<table>
<thead>
<tr>
<th>TYPICAL IMPACTS</th>
<th>WEATHER EFFECTS (Percent reduction)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RAIN</td>
</tr>
<tr>
<td>Capacity</td>
<td>-4% to -30%</td>
</tr>
<tr>
<td>Volume</td>
<td>-20%</td>
</tr>
<tr>
<td>Speed at Capacity</td>
<td>-8% to -14%</td>
</tr>
<tr>
<td>Saturation Flow</td>
<td>-2% to -6%</td>
</tr>
</tbody>
</table>

Source: FHWA Report JPO-11-019

http://www.citeconsortium.org/registration.html
Current Projects

- **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)

![Graph showing the decrease of TI Mets, TATS, and Citizen Reporters over time.](image)

**UDOT Weather Operations Program Data Input Sources**

- Citizen Reporting Program
- RWIIS Instrumentation
  - UDOT TOC Operator and TI Meteorologist Observations (Weather Cameras)
  - TATS Reporting (UDOT Plow Crews)
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

TRAFFIC MANAGEMENT DIVISION

udot.utah.gov
The Reporting App
Future Efforts

• Plow driver app
• On-line training
• Utah Highway Patrol, Utah Trucking Association, National Weather Service, general public
• Program marketing
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

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