



# Responding to Highway Mobility Incidents Using an ATMS



Ryan Knapp

VTrans Transportation Management Center (TMC)

## Introduction

Reporting highway mobility incidents to the traveling public and FWHA is a required function of the TMC. The TMC detects and monitors: crashes, weather events, driving conditions, road debris and hazards, flooding, traffic congestion, construction projects, and other incidents that affect the traveling public.

The TMC is embedded within the AOT Incident Command System as part of the Situation Unit – providing situational awareness to AOT, Vermont Emergency Management, and the public during widespread meteorological events.

## Methodology

Beginning in 2013, VT partnered with Maine and New Hampshire in a Tri-state initiative to implement an Advanced Transportation Management System – the primary goal was to consolidate multiple pieces of software into a singular program for more reliable and quicker response times.

The ATMS integrates message boards, road weather information stations, travel times, traffic flows, road weather condition reporting, social media, WAZE, event creation, alert messaging, CCTV, and more. The ATMS provides a platform for logging communications, reporting, and performance measures.

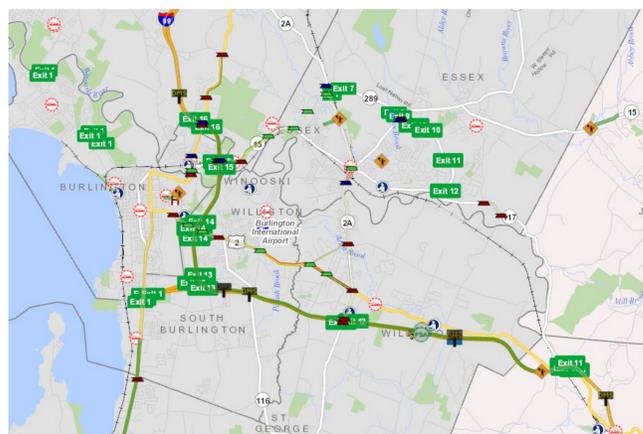


Figure 1. ATMS User Interface

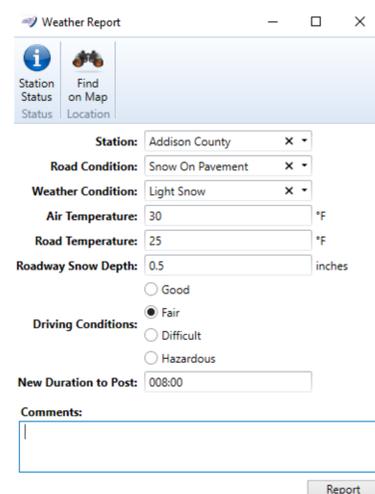


Figure 2. Road Condition Reporting

## Innovations

-WAZE/Crowdsourcing – WAZE is an interactive navigation application. Users provide feedback while using the application and the ATMS can display this information. When a TMC Operator closes a roadway the information is sent to WAZE and the closure is created in the navigation app – effectively re-routing the user.

-ESRI – Tri-states are working to integrate the mapping in the ATMS with ESRI's mapping platform. This creates a more user-friendly interface, allows the states enhanced flexibility to extract traffic and mobility data from the ATMS and use it in other applications. ESRI integration will also improve the customer's user interface – 511 Traveler Information website.

-Advanced Vehicle Location (AVL) – technology deployed monitor location of plow trucks and product usage rates and volumes. The Tri-sates are investigating putting plow truck location on the 511 website, as this information is available on a separate site.

-VT Alert – alert messaging software interfacing with the ATMS.

-Integration with DMV oversize/overweight permitting software.

## Potential Impacts

Reduce time of incident detection and response.  
Increase data collection and analysis for workforce management plans. 511 mobile application.  
Improved traveler experience in Vermont.

## Additional Information

<https://newengland511.org/>

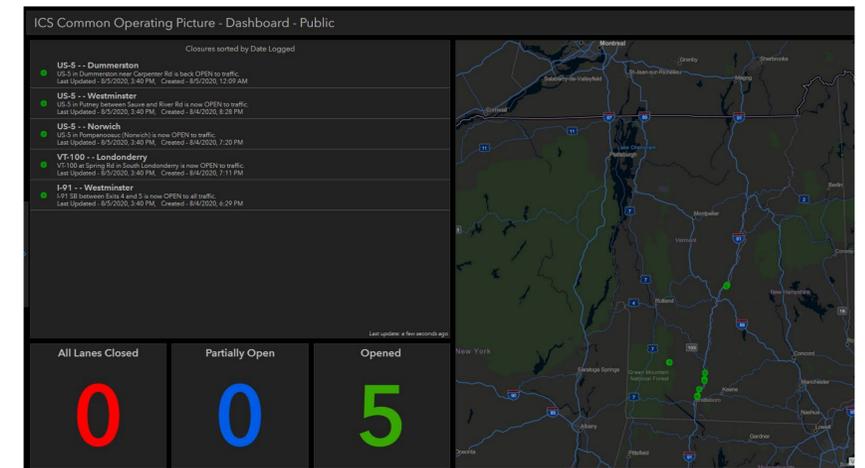


Figure 3. Common Operating Picture for Emergency Events