KC Scout & Winter Weather in Review 2009 to 2013

- Initiated Weather Integration Planning in **2009**
  - Completed Implementation Plan in **2010**
  - Deployed Six High Need Integration Strategies in **2011**

**Advisory, Control and Treatment Strategies**

- **Advisory**
  - Disseminate Wx info to broader audience
  - Provide better enroute Wx info to public

- **Institutional Coordination**
  - Develop & implement Wx event policies

- **Treatment Operations**
  - Improve timeliness of Wx event response

- **Wx Info Processing and Gathering**
  - Adjust operations based on Wx info
  - Provide real-time Wx alerts and updates
KC Scout & Winter Weather in Review 2009 to 2013

- Initiated Weather Integration Planning in 2009
  - Completed Development of an Implementation Plan in 2010
  - Deployed Six High Need Integration Strategies in 2011

Enjoyed an unseasonably mild winter in 2012, but . . . then came 2013!

5 YEAR COMPARISON OF INCIDENTS OCCURRING ON FEBRUARY 24, 25 & 26

Feb. 26, 2013

Data missing for 2/24/12
NWS Storm Advisories Integrated into Scout’s ATMS

Widely Publicized Advance Notice of Expected Storm

- Feb 20, 2013 14:25  Winter Storm Watch Issued for KC Metro Area
- Feb 21, 2013 04:58  Upgraded to Winter Storm Warning
- Feb 25, 2013 08:26  “Travel Not Advised” Message Issued within Metro Area
Weather Integration within KC Scout ATMS

Integrated ATMS/NWS Polygon Severe Weather Event Notification

As active weather events are received from the NWS integrated data feed, they are displayed graphically on the ATMS Map as polygons. A mouse-over shows the title, bearing & roads...

Actual Scout ATMS Map View
Once created, Weather Advisories will appear in the Event Management list with other event type instances, including their own set of filter buttons.
## Pre-Approved Winter Weather Messaging Sets

### TransSuite™ ATMS Weather Messages

<table>
<thead>
<tr>
<th>Org</th>
<th>Id</th>
<th>Name</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>KC Scout</td>
<td>98</td>
<td>Snow Plows</td>
<td>WATCH FOR SNOW PLOWS USE CAUTION</td>
</tr>
<tr>
<td>KC Scout</td>
<td>99</td>
<td>Winter Weather Advisory</td>
<td>WINTER STORM WARNING ABANDONED VEHICLES WILL BE TOWED</td>
</tr>
<tr>
<td>KC Scout</td>
<td>100</td>
<td>BLIZZARD WARNING</td>
<td>BLIZZARD WARNING TRAVEL NOT ADVISED</td>
</tr>
<tr>
<td>KC Scout</td>
<td>101</td>
<td>Winter Storm WARNING</td>
<td>WINTER STORM WARNING TRAVEL NOT ADVISED</td>
</tr>
<tr>
<td>KC Scout</td>
<td>102</td>
<td>ICE ON ROADWAY</td>
<td>ICE ON ROADWAY USE CAUTION ON RAMPS AND BRIDGES</td>
</tr>
</tbody>
</table>

- **Phase 1**: GIVE SNOW PLOWS ROOM TO WORK USE CAUTION
- **Phase 2**: BLOWING SNOW REDUCED VISIBILITY TRAVEL NOT ADVISED
- **Phase 1**: REDUCED VISIBILITY USE HEADLIGHTS USE CAUTION
- **Phase 2**: SNOW PLOWING IN EFFECT EXPECT DELAYS
- **Phase 1**: SEVERE THUNDERSTORM WARNING TUNE TO LOCAL MEDIA
- **Phase 2**: HIGH WIND ADVISORY USE CAUTION
- **Phase 1**: FOG CONDITIONS REDUCED VISIBILITY USE CAUTION

2nd Annual National WRTM Workshop and Stakeholder Meeting
February 26, 2013

- 110 Incidents recorded that day, 96 of which were winter storm weather related
- 21 in KS–89 in MO ~ 70 of the 96 Wx related incidents occurred on an Interstate
- 40 were Level 1 (≤ 30 min) 46 were Level 2 (30-60 min) 10 were Level 3 (≥60 min)
- The 96 Wx related incidents resulted in 98.5 hours of impacted roadways

<table>
<thead>
<tr>
<th>Types of Incidents</th>
<th>Numbers of Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Vehicle Accidents</td>
<td>33</td>
</tr>
<tr>
<td>2 Vehicle Accidents</td>
<td>10</td>
</tr>
<tr>
<td>3+ Vehicle Accidents</td>
<td>2</td>
</tr>
<tr>
<td>Stalled or Stranded Vehicles</td>
<td>51</td>
</tr>
<tr>
<td>Other (Debris, Roadwork)</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total Incidents</strong></td>
<td><strong>110</strong></td>
</tr>
</tbody>
</table>
Using Social Media to Involve & Engage the Public

Winter Storm Feb 20-26, 2013 Tweets Posted

**Kansas City Scout @KansasCityScout**
Winter Storm Warning in effect for Thurs am through Fri morning. It's anticipated to be a major snow event. Travel not advised on Thursday.
8:00 pm

**Kansas City Scout @KansasCityScout**
KDOT Press Release just issued: KS state offices will be closed from 6 am Thurs. to 6 am Fri., except for essential personnel. Stay tuned.
10:00 pm

**Kansas City Scout @KansasCityScout**
KDOT Weather Update: As of 10:30 p.m. tonight, hotels are COMPLETELY full in Oakley, WaKeeney and Ellis in Northwest KS. @NWKansaskDOT #kswx.
11:00 pm

**Kansas City Scout @KansasCityScout**
KSDOT (From KanDrive) I-70 @ Hays, Exit 159 is showing snow covered! It's headed our way! KHP reporting flurries at the I-35 Scale House
01:30 am

**Kansas City Scout @KansasCityScout**
Latest MoDOT forecast for KC Metro shows snow arriving around 4:00 am See current KDOT image of what's to come...
01:45 am

2nd Annual National WRTM Workshop and Stakeholder Meeting
Images of MoDOT/KDOT in action

2nd Annual National WRTM Workshop and Stakeholder Meeting
Winter Maintenance Support Operates Within the TMC

NWS Forecaster on special assignment in the Scout TMC

Pictured L-R: Tom Allen, Asst. District Maint. Engineer, Teresa Martin, Materials Sr. Office Assistant and Brian Lavender, Intermediate Traffic Technician

Seated: Scott Blair, Pleasant Hill NWS forecaster; Chris Redline, Asst District Engineer and MSHP Lt. Scott Shipers, Troop A
Winter Road Condition Info Available Online

Step 1: Select Area
- Select Entire State
- Select a Region
  - Northeast
- Select a Metro Area
  - Kansas City
- Select a County
  - ALLEN

Step 2: Select Route
- Select All Routes
- Select a Route
  - 170

Step 3: Create Report

Create Report
KC Scout’s 24/7 Media Room

As abandoned vehicles were being towed from the mainline, we quickly exceeded temporary storage capacity at a MoDOT facility. We were able to negotiate with the Sports Complex to plow and use Lot B for overflow.

Truman Sports Complex

Media can quickly set up for remote broadcasts within a room adjacent to our TMC without disrupting floor operations. The room was designed for this function and doubles as a training and meeting facility.
# A Year’s Worth of Winter Weather in 10 Days

<table>
<thead>
<tr>
<th>Wednesday 2/20/13</th>
<th>Thursday 2/21/13</th>
<th>Friday 2/22/13</th>
<th>Saturday 2/23/13</th>
<th>Sunday 2/24/13</th>
</tr>
</thead>
</table>
| • EOC activated at 7:30 pm  
  • All buildings at full staff | • Snow Storm #1 begins at 4:00 am, stops at 3:00-4:00 pm, accumulation 10” (thundersnow 7am-10am)  
  • Many vehicles get stuck in traveled lane-plows can’t work well  
  • Mainline windrows causing vehicles to high center at exits  
  • Have multiple intermittent lane closures and ramp clearance issues  
  • MoDOT utilizing contractor forces  
  • Arranging housing for staff  
  • KC District requesting 10 TMAs and 10 Loaders | • Routes covered, mostly clear by afternoon  
  • Minors will have one pass by 10 am  
  • Motorist Assist is contracting with 3 tow companies to remove stranded vehicles  
  • Addressing windrows and snow near barrier curbs and guardrail  
  • Contractors continue to assist  
  • KC District split into 4 regions (Three Trails Crossing, Downtown, North and East) | • Focus on benching/shelving of snow just off the shoulder  
  • The 4 regions are all around 50-60% complete  
  • Resources have been arranged from SE, SW, SL  
  • Remove remaining abandoned vehicles  
  • Using contractor trucking w/snow blower to haul away snow  
  • Primary focus is to clear auxiliary lanes at ramps (eliminate abrupt tapers at ramp exits and entrances) | • Benching work is continuing with wing and tow plows to make room for next storm event  
  • Snow blower teams continue  
  • NIMS command structure is being established  
  • Snow Storm #2 starts around 10:00 to 11:00 pm |

|----------------|-----------------|------------------|------------------|--------------|
| • Snow continues  
  • KC has 35% salt on hand | • Snow Storm #2 ends, 10” accumulation  
  • All routes covered  
  • 40,000 without power  
  • Many plows stuck | • Snow resumes in early morning, received 1-2” of additional snow  
  • Wind gusts to 25 mph; experiencing drifting throughout district  
  • 26% of salt remaining  
  • Routes mostly clear by mid-day | • Demobilize out-of-district staff  
  • Focus on clean up operations | • Clean up operations of Priority 1 Items completed around 2:00 pm  
  • KC EOC deactivated |
Lessons Learned: Successes, Failures & Challenges

Successes:
- 24/7 Media Access to TMC Activity
- Positive Responses from the Public
- Timely Incident Creation & Updates

Challenges:
- Towed Vehicles Quickly Exceeded Storage Capacity
- Road Conditions Required Staffing Accommodations
- Less Experienced Plow Drivers Due To 2012 Staff Cuts

Budgeting:
- Tow & Storage
- Hotel Rooms

Training:
- Coordination
- Communication

Resources:
- People
- Equipment

2nd Annual National WRTM Workshop and Stakeholder Meeting
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KC Scout TMC Supervisor
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Phone: 816.347.2285