TRAFFIC INCIDENT MANAGEMENT

The Who, What, Why, And When of the Efforts

Robert Rabe
VDOT State Safety Service
Patrol Program Coordinator

Frank Cheatham
Virginia Office of EMS
HMERT Coordinator
A Driving Force - where did it start

Each year in the USA, the following number of responders are struck and killed:

• 12 Law Enforcement Officers
• 5 Fire and Rescue Personnel
• 60 Towing and Recovery Professionals
• Several transportation professionals from DOTs, Public Works, and Safety Service Patrol Programs
The What

• Virginia’s Continued Crash Issue each year is...
  – Public health problem
  – Societal costs
  – Traffic congestion costs
    • Delays
    • Expectations of motorists
    • Commerce
    • Loss of revenue

700 Fatal

43,200 Injury

78,200 Property Damage

5 Fatal or Injury crashes every hour In Virginia
Our Response

Each injury crash can require...

✓ 2 Law Enforcement
✓ 4 Fire/Rescue
✓ 2 EMS
✓ 1 Towing & Recovery

________________________________________

= 9 Responders
Statewide Traffic Incident Management Committee

- Executive Order 15 continued Statewide TIM Committee
- Chaired by State Police Superintendent
- 16 Member organizations
  - 6 State Agencies
  - 10 Associations
- 3 Standing Subcommittees
  - Communications,
  - Best Practices and Safety

[Image of five people standing in front of emergency vehicles]
Statewide TIM Organization

- Statewide TIM Committee
  - Training Oversight Committee
  - Division Coordinators
  - Instructors within each Division
  - Best Practices Workgroup
  - Health and Safety Workgroup
  - Communications
Web Presence

It’s About How Responders Respond

The three main tasks of the Virginia Statewide Traffic Incident Management Committee (STIM) are to:

1. Review interagency responder safety practices
2. Audit incident clearance rates
3. Improve inter-operable communications between responding agencies throughout

http://vastim.org/jinia

VASTIM.ORG

Virginia Department of Emergency Management
VDH
Virginia Department of Criminal Justice Services
Virginia State Police
Virginia Department of Transportation
Strategic Highway Research Program 2 (SHRP 2)

- Congress authorized in 2005 to investigate the underlying causes of highway crashes and congestion in a short-term program of focused research
  - Safety
  - Renewal
  - Reliability
  - Capacity

- The National TIM Responder Training Program was the first reliability product
National TIM Responder Training

- Designed to establish the foundation for and promote consistent training of all responders to achieve the three objectives of the TIM National Unified Goal (NUG):
  - Responder Safety
  - Safe, Quick Clearance
  - Prompt, Reliable, Interoperable Communications
As of May 1, 2017

<table>
<thead>
<tr>
<th>Partnering Agency’s</th>
<th>Virginia Ranks # 1 Nationally</th>
<th>Virginia Ranks # 2 Nationally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have trained 357 SHRP2 – TIM train the trainers. (Certified Instructors)</td>
<td>17,562 First Responders trained in a classroom setting</td>
<td>18,322 First Responders trained in classroom &amp; web based</td>
</tr>
</tbody>
</table>
TIM Training Program Implementation Progress

SHRP 2 Training Status

Number of Responders Trained: In-Person - **228,686**  Web-Based Training (WBT) - **21,204**
Steps Taken

• Training
  – Keep Leading Nation
  – Workgroups sharing ideas
    • Job Aid concept
    • Legislation
    • Looking for ways to better the outcomes of incidents
  – Continuing interface with Federal partners
STIM Initiatives

• Division level
  – Coordinators constantly looking at ways to get the information out
  – We have several Instructors that are leading the nation in classes taught

• Legislation
  – Several items presented at General Assembly in support of Incident Management
Needs going forward

• Funding
  – SHRP 2 Program at end of life this year
  – States will need to keep training program
  – Making certain the availability of the training is known
VDOT Operations Division

Top 10 TIM Best Practices, Tools and Strategies

- Attend Traffic Incident Management Meetings
- Complete SHRP 2 National TIM Responder Training
- Provide accurate and real time traffic information
  Supplement existing PCMS as appropriate
- Dispatch appropriate resources to an event
- Expand Safety Service Patrols
- Implement Towing and Emergency Relocation Program
- Augment on-scene recovery resources
- Defer cleanup to off-peak hours
- When appropriate modify signal operations to support alternate routes & detours
- Warn motorist about the end of a traffic queue
Implementing Innovative Wrecker Services & Quick Clearance Strategies

• Emergency tow contract during weather events
  ➢ All 9 Districts

• Instant Tow Dispatch
  ➢ Northern Region and Eastern Region
  ➢ Southwest Region (under development)

• Incentive Tow Program
  ➢ Richmond District
  ➢ Salem District (under development)

• On-call heavy duty wrecker
  ➢ Staunton District
  ➢ Hampton Roads Tunnels
# Operations & Maintenance Incident Management Programs

**Newly Added: Traffic Incident Management Coordinator Positions**

<table>
<thead>
<tr>
<th>CRO</th>
<th>ERO</th>
<th>NOVA</th>
<th>SWRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>I-64 Widening Project (1) SSP Lead Operator</td>
<td>Leesburg Residency (1) Area Incident Management Coordinator</td>
<td>Salem TOC (1) Regional Incident Management Coordinator</td>
</tr>
<tr>
<td>3</td>
<td>Ashland Residency (1) Asst. Residency Admin</td>
<td>Manassas Residency (1) Area Incident Management Coordinator</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Chesterfield Residency (1) Asst. Residency Admin</td>
<td>PSTOC (1) Area Incident Management Coordinator</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Petersburg Residency (1) Asst. Residency Admin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>South Hill Residency (1) Asst. Residency Admin</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Statewide Total: VDOT Incident Management Coordinators**

<table>
<thead>
<tr>
<th>CRO</th>
<th>ERO</th>
<th>NOVA</th>
<th>NWRO</th>
<th>SWRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

[Image of emergency responders]
Expanding existing Safety Service Patrol Operations

New Routes Defined

<table>
<thead>
<tr>
<th>I-81</th>
<th>I-95</th>
<th>I-64</th>
</tr>
</thead>
<tbody>
<tr>
<td>MM 264-298 (34 Miles)</td>
<td>MM 61-84 (23 Miles)</td>
<td>MM 175-200 (25 Miles)</td>
</tr>
</tbody>
</table>

Statewide Route Totals

<table>
<thead>
<tr>
<th>CRO</th>
<th>ERO</th>
<th>NOVA</th>
<th>NWRO</th>
<th>SWRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>13</td>
<td>13</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

Total: 24/7 Routes

Total Hourly Routes (10/12 Hour Shifts)

25

24

Total Coverage:

818 Lane Miles
## Enhancing Contractor Services & Program Performance by defining: Required Operational Outcomes

<table>
<thead>
<tr>
<th>Desired Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOC Floor Operations</strong></td>
</tr>
<tr>
<td>• Provide effective traffic management strategies.</td>
</tr>
<tr>
<td>• Actively participate in the timely resolution of incidents.</td>
</tr>
<tr>
<td>• Disseminate accurate and timely information to motorists and stakeholders.</td>
</tr>
<tr>
<td>• Maintain situational awareness on how Transportation System is operating.</td>
</tr>
<tr>
<td><strong>Safety Service Patrol</strong></td>
</tr>
<tr>
<td>• Resolve incidents in a timely manner with safe and quick clearance.</td>
</tr>
<tr>
<td>• Provide assistance to motorists within areas of defined route coverage in a courteous and dependable manner.</td>
</tr>
<tr>
<td>• Operate as an extension of the TOC by providing accurate, timely, and appropriate information.</td>
</tr>
<tr>
<td>• Work within the incident command structure on-site, when possible.</td>
</tr>
<tr>
<td><strong>ITS Field Maintenance</strong></td>
</tr>
<tr>
<td>• Deliver ITS field device operational availability, when needed</td>
</tr>
<tr>
<td>• Provide transparent and easy-to-use tools to manage a consistent state-wide ITS Maintenance Program.</td>
</tr>
<tr>
<td>• Protect the value of the client’s (VDOT) assets and reduce the total cost of ownership.</td>
</tr>
<tr>
<td><strong>ATMS</strong></td>
</tr>
<tr>
<td>• Enterprise approach to lower total ownership cost.</td>
</tr>
<tr>
<td>• Statewide interoperability between TOC’s, Regions and Districts.</td>
</tr>
<tr>
<td>• Facilitate ability of TOC to achieve desired outcomes.</td>
</tr>
</tbody>
</table>
# COMMONWEALTH OF VIRGINIA
## FREEWAY TRAFFIC MANAGEMENT
### INCIDENT DETOUR PLAN

### BETWEEN EXIT 235 & EXIT 240
#### INCIDENT DETOUR PLAN

<table>
<thead>
<tr>
<th>I-81 SOUTHBOUND</th>
<th>I-81 NORTHBOUND</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TRAFFIC CONTROL POSTS</strong></td>
<td><strong>TRAFFIC CONTROL POSTS</strong></td>
</tr>
<tr>
<td>Post 1S – Close ramp indicated on map Post 2S – Facilitate left-turn traffic from Rte 257 (Friedens Church Rd) WB onto US 11 (S Valley Pk) SB Post 3S – Facilitate left-turn traffic from US 11 (S Valley Pk) SB onto Rte 256 (Weyers Cave Rd) EB</td>
<td>Post 1N – Close ramp indicated on map and facilitate left-turn traffic from I-81 NB off-ramp onto Rte 256 (Weyers Cave Rd) WB Post 2N – Facilitate left-turn traffic from Rte 682 (Friedens Church Rd) EB onto I-81 NB access ramp</td>
</tr>
<tr>
<td><strong>DETOUR ROUTING INSTRUCTIONS</strong></td>
<td><strong>DETOUR ROUTING INSTRUCTIONS</strong></td>
</tr>
<tr>
<td>Take Exit 240 to Rte 257 (Friedens Church Rd) WB Continue along Rte 257 (Friedens Church Rd) for 0.8 mi. Turn LEFT onto US 11 (S Valley Pk) SB Continue along US 11 (S Valley Pk) for 5.5 mi. Turn LEFT onto Rte 256 (Weyers Cave Rd) EB Continue along Rte 256 (Weyers Cave Rd) for 400 ft. Take immediate RIGHT for the I-81 SB access ramp</td>
<td>Take Exit 235 to Rte 256 (Weyers Cave Rd) WB Continue along Rte 256 (Weyers Cave Rd) for 0.2 mi. Turn RIGHT onto US 11 (S Valley Pk) NB Continue along US 11 (S Valley Pk) for 5.5 mi. Turn RIGHT onto Rte 257 (Friedens Church Rd) EB Continue along Rte 257 (Friedens Church Rd) for 0.9 mi. Turn LEFT for the I-81 NB access ramp</td>
</tr>
<tr>
<td><strong>CHANGEABLE MESSAGE SIGNS</strong>*</td>
<td><strong>CHANGEABLE MESSAGE SIGNS</strong>*</td>
</tr>
<tr>
<td>PCMS; I-81 SB, 1.0 mi. prior to Exit 240 Page 1: ROAD CLOSED AHEAD Page 2: FOLLOW DETOUR</td>
<td>PCMS; I-81 NB, 1.0 mi. prior to Exit 235 Page 1: ROAD CLOSED AHEAD Page 2: FOLLOW DETOUR</td>
</tr>
<tr>
<td>PCMS; I-81 SB, 1.0 mi. prior to Exit 245.0 Page 1: ACCIDENT ROAD CLOSED Page 2: USE ALT ROUTE</td>
<td>CMS ST-I-81 N 230; I-81 NB at MM 230.0 Page 1: ACCIDENT ROAD CLOSED AT EXIT 235 Page 2: DETOUR AHEAD</td>
</tr>
</tbody>
</table>

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**EMERGENCY SCENE AHEAD**

**HURRICANE EVACUATION ROUTE**
Current Initiatives

Google Maps & WAZE Integration
Future Initiatives – DRONE Technology!

In partnership with VT Smart Road, VDOT is exploring Traffic Incident Management Operational scenarios.

Potential Applications

- Incident management situational awareness, triage
- Crash scene reconstruction
- Hazard assessment
- Alternate routing assessment, detours, evacuation
- Spilled contaminant migration assessment
Discussion and Questions
ESTABLISHING DOCUMENTS

Executive Order 58 (2013) – Establishing a Statewide Traffic Incident Management Committee

State Joint Resolution No. 277 (2013) – Requesting the Secretary of Public Safety to establish a Statewide Traffic Incident Management Committee

Executive Order 15 (2014) – Continuing the Virginia Statewide Traffic Incident Management Committee
Guidelines for the Mitigation of Accidental Discharges of Motor Vehicle Fluids (Non-Cargo)

Department of Agriculture and Consumer Services - VDACS Food Safety Inspectors

VA Code 2.2-505 Deceased Removal Inquiry – 2015
Responder Disciplines

- Law Enforcement (LE)
- Fire/Rescue (F/R)
- Emergency Medical Services (EMS)
- Towing and Recovery (T&R)
- Highway/Transportation Agencies (DOT)
- Communications Centers
  - 9-1-1
  - Transportation Management Centers (TMCs)
Injury Crashes
That’s potentially 27 responders rolling out to a new injury crash every minute of every hour, 24/7/365
Congestion, Reliability and Costs

• In addition to negatively impacting travel time reliability, traffic incidents also impose a significant economic cost
• A study conducted by AAA found that in 2009 the:
  – Annual cost of congestion: $97.1 billion
    • Compared to $67.7 billion in 2005 = 143% increase
  – Annual cost of traffic crashes: $299.5 billion
    • Compared to $164.2 billion in 2005 = 182% increase

“D” Drivers are killing us…

✓ Drunk,
✓ Drugged,
✓ Drowsy,
✓ Distracted, or
✓ Just plain… Dumb
Commonwealth of Virginia

Accomplishments and Future Directions
Accomplishments

• Training
  – Many Departments mandating the SHRP 2 Training
  – Towers on State List mandated to have it by end of 2017

• Steps taken

• Initiatives

• Needs going forward