



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
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David S. Ekern, P.E.
COMMISSIONER

May 2, 2008

MEMORANDUM

TO: The Honorable Pierce R. Homer
Secretary of Transportation

FROM: David S. Ekern, P.E. *dse*
Commissioner

RE: A Commitment to Focus—VDOT's Action Plan for Improving Emergency Response

Following the February 12 ice storm that shut down the Springfield Interchange and a spate of recent traffic-clogging interstate crashes, I am directing VDOT to refocus on our vital mission as one of Virginia's key emergency response agencies. Attached is a emergency response action plan that will reinforce VDOT's commitment to keeping Virginians safe during inclement weather and other emergency events.

This direction was developed from an ongoing series of meetings with transportation professionals, our partners in law enforcement, EMS agencies, neighboring jurisdictions, and public input. It addresses key areas of focus necessary to meet customers' expectations that VDOT, like fire departments and law-enforcement agencies, will provide critical emergency services during all unforeseen events.

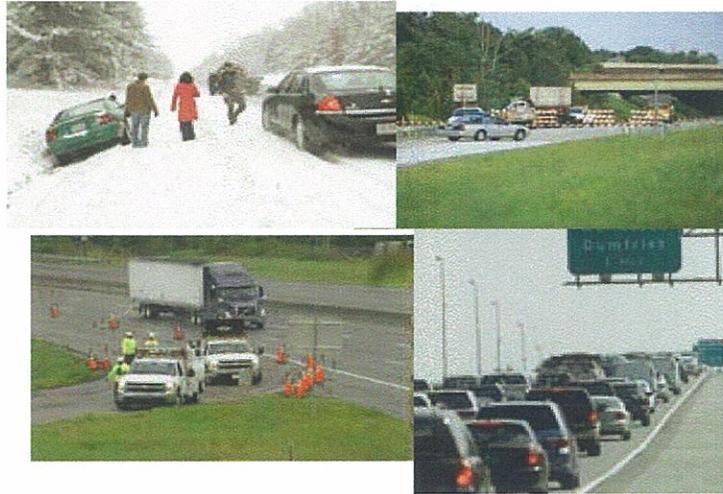
The plan outlines thirteen action directions to adopt industry best practices and to overcome geographic inconsistencies and barriers that contribute to delays in clearing incidents. Implementing these action items will result in improved communications with the public; implementation of National Incident Management System practices; adoption of industry best practices; staff training to reinforce VDOT's emergency response duties; and improved coordination with local, state, and federal agencies involved in incident response.

This effort will not come without a cost. To modernize our equipment, train staff and install/remodel technology necessary to restore vital transportation arteries after a serious event will require monetary commitments and a concerted agency effort over the next 18 months. It will also entail four to five years of focused commitment to emergency response in order to complete the necessary long-term changes in VDOT activities and practices. I will provide you with a program deployment estimate the week of May 5.

This is a commitment worth making because it will drastically improve the safety of every Virginian traveling on our transportation network. The energies and resources devoted today will protect the quality of life throughout the Commonwealth for years to come. I will personally lead this action plan.

CC: Colonel Steven Flaherty
Mr. Michael Cline
Mr. Steve Mondul
Mr. Gregory Whirley
Chiefs
District Administrators

VDOT'S COMMITMENT TO FOCUS ACTION PLAN FOR IMPROVING EMERGENCY RESPONSE



Prepared by:

**David S. Ekern, P.E.
Commonwealth Transportation Commissioner
Virginia Department of Transportation**

April 28, 2008



VDOT's Commitment to Focus A Long Term Action Plan for Emergency Response

INTRODUCTION

On Tuesday, February 12, 2008, the Northern Virginia region was hit with a severe ice storm that significantly impacted the flow of traffic throughout the region. This event focused attention on how important the highway system is in the lives of Virginians and emphasized that emergency response is one of the most important responsibilities for the Virginia Department of Transportation (VDOT). This plan contains action items that will improve VDOT's capabilities as a critical incident response agency and will raise the level of service during incidents to that expected by the citizens of Virginia. The central themes of the plan are:

- Improving communication with the public and media to guarantee they are informed about the impact incidents have on transportation safety;
- Implementing best practices statewide for consistent, dependable and timely response to incidents;
- Adopting the National Incident Management System principles and procedures applicable to all incidents and recognizing VDOT's role as a first responder agency;
- Improving and institutionalizing incident response training; and,
- Improving coordination with and support for other state, federal, and local agencies involved in incident response.

Implementation of the plan will:

- Create a Department-wide comprehensive and coordinated incident response focus;
- Realign available funding, equipment, and resources to strengthen incident prevention, preparation, response, and recovery;
- Balance VDOT and contract resources to improve snow and ice management; and,
- Eliminate administrative barriers that hinder response.

An organizational structure for implementation of the plan is shown in Appendix A.

There are four classes of incidents¹:

1. Weather related (snow, ice, flooding)
2. Major or minor crashes
3. Hazardous materials spills (hazmat)
4. Terrorist attacks

¹ For the purposes of this document, an incident is defined as an occurrence, natural or human-caused that requires an agency response to protect life or property or to restore traffic to its normal rate of flow. For some classes of incidents, VDOT will be in command; for others VDOT will support other agencies that are in command. In all cases VDOT's priorities are as follows:

- The safety of the public and those responding to any incident will not be compromised.
- Maintaining or restoring traffic movement. After safety is addressed, traffic will be restored to normal flow as quickly as is practical.
- Efficient, effective, use of resources will be considered after safety and traffic movement are properly considered.

What is the National Incident Management System?

The National Incident Management System (NIMS) is a comprehensive approach to incident management that is applicable at all jurisdictional levels and across functional disciplines. NIMS is applicable across the full spectrum of potential incidents and hazard scenarios, regardless of size, complexity or origin of the event. It also is designed to improve coordination and cooperation between public and private entities in a variety of incident management activities. The NIMS will be used as the foundation for all VDOT responses to the four categories of incident noted previously.

The components of NIMS are

- Command and Management
- Planning and Training
- Resource Management
- Communications and Information Management
- Supporting Technologies and
- Ongoing Management and Maintenance

NIMS employs two levels of incident management structure, depending on the nature of the incident:

- Level 1--The Incident Command System (ICS) is a standard, on-scene, all-hazard incident management system. ICS enables users to adopt an integrated organizational structure to match the needs of single or multiple incidents.
- Level 2—Multi-agency Coordination Systems are a combination of facilities, equipment, personnel, procedures, and communications integrated into a common framework for coordinating and supporting incident management.

The following principles guide VDOT's incident response activities.

1. VDOT's focus on incident response will support managing and responding to incidents on the network of roads and bridges on a system basis rather than by geographic area.
2. The plan will focus on PREVENTION, PREPARATION, RESPONSE, and RECOVERY. VDOT will institute a clear and consistent chain of command which has no more than three levels to reach a final decision and is based on the NIMS and ICS philosophy. The VDOT organization for maintenance and operations (incident response and system management) will be clear and accountable.
3. The system of response will employ a consistent approach on a statewide basis with all variations being conscientiously agreed to and documented. The system will recognize and embrace what has worked in the past, but will not retain practices simply because they are comfortable and familiar.
4. The system will be jurisdiction neutral and seamless. It will view all resources employed for an incident (including those from the private sector and other governmental units) as a single, coordinated response entity.
5. All changes to current approaches and other aspects of incident response will be measured by the time to implement, the sustainability of the change, and its ability to be institutionalized in VDOT.

ACTION ITEMS

A number of action items have been identified that will move VDOT toward the goal of improved incident response.

1. *Beginning with the 2008 winter season, VDOT will implement an anti-icing program by initially focusing on high-risk locations.*
 - a. Maintenance and Operations field operators and first-line and mid-level managers will be trained in the principles and use of anti-icing techniques for snow removal and ice control. Training will also provide guidance on how to balance an anti-icing approach with more traditional approaches.
 - b. VDOT will develop a plan to extend the anti-icing program statewide.
 - c. VDOT will review its snow response fleet for opportunities to implement the latest technological improvements where cost effective.
 - d. VDOT will implement technologies that can aid in the deployment of snow and ice control techniques such as decision support tools and information management tools.
2. *Each district will establish snow and ice mobilization plans that emphasize a system approach to response.*
 - a. The plans will emphasize the sharing of resources across existing area headquarter, residency and district boundaries.
 - b. The plans will employ a consistent NIMS “all hazards” approach for chain of command, preparation and communications both within VDOT and with other responding agencies.
3. *VDOT will institute a formal command and control structure and protocols for all incident response based on the National Incident Management System (NIMS).*
 - a. Districts will implement a unified command structure that integrates operations and maintenance.
 - b. The role of incident commander will be established in each district and staffed with a rotating duty roster comprised of individuals with the knowledge, skills, and authority to handle incidents. An incident commander will be on-call 24/7/365.
 - c. The district incident commander will make the call to activate the district command post based on the latest weather predictions or other information about events with district-wide impact.
 - d. Protocols will be developed that will determine the appropriate level of response – local, regional, or statewide.
 - e. A protocol will be implemented that determines when VDOT public affairs staff is activated to assist in incident response communications.
4. *VDOT will expand the focus of the five regional traffic management centers (TMCs) to become transportation operations centers (TOCs) with responsibility for active incident response.*
 - a. The TOCs will serve as command posts for all significant events. Appropriate management personnel will staff the command posts to include representation from maintenance, operations, public affairs, and the Virginia State Police (where appropriate.)

- b. Traffic monitoring capabilities that currently exist at tunnel and bridge facilities will be integrated into the TOCs.
 - c. VDOT will work with local governments and to the extent possible integrate local law enforcement Computer Aided Dispatch (CAD) into all TOCs to enhance the detection of and response to incidents.
 - d. The TOCs will maintain a list of resources available to deal with complex situations involving hazardous material handling, unusual cargo, etc.
 - e. To improve coordination, VDOT will co-locate the Transportation Emergency Operations Center (TEOC) with the Virginia Department of Emergency Management Operations Center.
5. *VDOT will modernize incident response vehicles and pre-position them at strategic locations to ensure a timely response 24/7/365. Elements of the fleet to be modernized include:*
- a. Emergency response vehicles
 - b. Snow and ice fleet
 - c. Safety Service Patrol vehicles and equipment.
6. *VDOT will implement a Statewide Master Plan for sensor deployment to assist in decision-making with respect to emergency response. Specific activities to be undertaken include:*
- a. Deploy, repair, or replace a network of closed circuit television (CCTV) cameras to provide visual verification of incident conditions at critical locations.
 - b. Deploy, repair, or replace vehicle detection systems (VDS) to provide accurate information on vehicle speed and volume on key road segments.
 - c. Deploy a comprehensive integrated system of road-weather information by expanding the current network of road weather information system (RWIS) stations.
 - d. Deploy automated vehicle location (AVL) devices on vehicles used for incident response to aid in effective management of resources.
 - e. Establish a statewide comprehensive maintenance contract that enables immediate installation, repair or replacement of devices at those locations that are identified as critical for incident response.
7. *VDOT will deploy a communications system that ensures comprehensive intra-agency coverage and interoperability among partner agencies.*
- a. Establish an interagency working group to determine the equipment, training and protocols necessary to achieve the requirements for both internal and interagency communications under incident response scenarios.
 - b. Integrate current communications tools with new technology to create an interoperable system that provides redundancy under incident conditions.
8. *VDOT will implement a Statewide Master Plan for communications devices critical to incident response and protocols for their use.*
- a. Deploy, replace and/or upgrade dynamic message signs (DMS) at locations critical for public information dissemination during incidents.
 - b. Replace obsolete portable DMS and augment the number of devices available for incident response.

- c. Adopt new “push” technology, including RSS feeds, in 511 VA and other mediums to target emergency communications to computers, cell phones, PDAs, and mobile devices
 - d. Establish standard operating procedures and protocols for all field devices including DMS, HAR, and 511
 - e. Standardize message libraries using input from communications professionals for quick and meaningful information dissemination to motorists via VA Traffic and field devices including DMS, HAR, and 511 systems
 - f. Complete the establishment of a Web newsroom and emergency information areas on VDOT’s Web site to provide 24/7 access for citizens to get additional information and to gain understanding about VDOT’s emergency response role.
 - g. Replace the Virginia Operations Information System (VOIS) with a modern, web-based system, VA Traffic, to provide robust information during incidents.
 - h. Establish a statewide comprehensive maintenance contract that enables immediate installation, repair or replacement of devices at those locations that are identified as critical for incident response.
9. *VDOT will implement public information protocols and procedures for incident response. This includes but is not limited to:*
- a. Establish clear protocols to trigger the involvement of public affairs staff in the incident response team and to mobilize communications support teams to the appropriate response locations and activities.
 - b. Revise policies and practices on how field staff and incident responders post information on the VDOT Web.
 - c. Host pre-season snow and ice media conferences to discuss VDOT’s winter weather preparedness and to build relationships.
10. *VDOT will establish a protocol for internal and external meetings that focus on the sharing of lessons learned and preparation for future incidents.*
- a. VDOT will establish a protocol for formal debriefings for individuals and agencies involved in incident response.
 - b. VDOT will organize semi-annual meetings (pre-winter and pre-hurricane seasons) with incident response agencies in each district (e.g., state and local police/sheriffs, fire departments, rescue squads, VSP.)
11. *VDOT will establish an emergency response institute focused on practical applications and table-top exercises that expose participants to real-world challenges and experiences. Specific curricula will be developed for the levels of agency participation in emergency response including:*
- a. Front-line operators
 - b. First-line and mid-level managers
 - c. Senior managers
12. *VDOT will establish agreements with external agencies (e.g. Virginia National Guard, Virginia Department of Forestry, adjacent state DOTs) for support during incidents. The agreements will define clear expectations regarding the availability of personnel and equipment for mobilization across the Commonwealth.*

13. *VDOT will streamline administrative and other types of processes that currently hinder effective response to incidents and the ability to restore normal traffic flow and will review staffing distributions to support emergency response. Policies and processes to be considered include, but are not limited to:*
- a. Policies governing the use of VDOT vehicles for incident response.
 - b. Limitations on authority for quick clearance when road closure decisions have significant traffic impacts.
 - c. Limitations on authority of on-scene responders to obtain appropriate resources quickly so that traffic flow is restored as soon as possible.
 - d. Difficulties associated with travel, lodging, reimbursement and incentives for personnel responding to incidents away from their normal duty station.
 - e. Effectiveness of contractual approaches for retaining hired equipment for snow and ice control that ensure timely response.

Appendix A

Draft Implementation Team Structure

April 28, 2008

Subject to change

