

# Assessment of New Hampshire's Preparedness and Security



*submitted to*  
Governor Jeanne Shaheen

*by*  
The New Hampshire Commission  
On Preparedness And Security

Donald P. Bliss, Chair

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# Acknowledgment

The Commission would like to acknowledge that in the weeks immediately following its creation by Governor Shaheen, the Commission received input, inquiries and offers of assistance from numerous organizations, local officials and private citizens. The Commission encourages state agencies to continue to solicit input from the public as they develop plans and strategies regarding terrorism and other emergencies.

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SECTION I  
**Mission Statement**

While New Hampshire's traditional emergency response capabilities are sound, it is clear from the terrorist attacks of September 11, 2001 that we now face new kinds of threats – threats for which New Hampshire must be prepared. It is imperative that we quickly reevaluate our state's security and emergency preparedness in light of these threats.

The mission of the New Hampshire Commission on Preparedness and Security is to evaluate New Hampshire's readiness to respond to terrorist attacks and make recommendations for action New Hampshire can take to better prepare for and deter such attacks. This assessment should include:

- Readiness of emergency response personnel, public health systems and health care facilities to respond to a terrorist attack with mass casualties.
- Readiness to respond to chemical or biological attacks.
- Security of our transportation systems, including airports, highways and bridges.
- Security of our port facilities and maritime commerce.
- Security of utilities, energy transmission systems, nuclear power plants and fuel storage.
- Safety of our food and water supplies.
- Other issues identified by the Commission.

In addition, the Commission will coordinate New Hampshire's response to federal emergency preparedness and security directives arising out of the events of September 11, 2001.

The Commission will make periodic reports to the Governor as it completes its work, with a final report due no later than November 27, 2001.

## SECTION II

# Activities of the Commission

Governor Shaheen established the Commission on Preparedness and Security on September 27, 2001 and assigned it the responsibility to assess the ability of New Hampshire to respond to emergencies, including terrorist attacks. To this end, the Commission met with various state government agencies and first responder organizations and reviewed security assessment reports.

In a seven-week time span, the Commission held six deliberative meetings and one special meeting with the leadership of the New Hampshire legislature. All meetings were held at the Richard M. Flynn Fire Academy in Concord.

At each meeting of the Commission, members received briefings on the status of unfolding current events, such as the anthrax mail scares, airport security, National Guard deployment, security of critical facilities throughout the state, and port security. State agencies provided updates concerning their activities responding to or preparing for terrorism-related incidents. Commission members shared information, provided resources to one another and, in general, strengthened the coordination of state government. Additionally, informational briefings by various groups were provided to the Commission on major topics.

For example, the New Hampshire Association of Fire Chiefs briefed the Commission on what fire services need to deal with terrorism. The Office of Emergency Management provided a detailed presentation on the state's emergency response plans, and briefed the Commission on the Comprehensive Emergency Management Planning for Schools (CEMPS) program. The New Hampshire Department of Safety Division of State Police (hereafter New Hampshire State Police) briefed the Commission concerning its Terrorism Intelligence Unit. And leading state utility executives briefed Commission members on internal reviews of deterrence, mitigation and response procedures.

Other key meetings and briefings were held, including:

- The Public Utilities Commission, the Office of Emergency Management and the Governor's Office of Energy and Community Services met with the state's utilities (i.e., electric, natural gas, telephone and public water supply) to review security issues.
- Numerous planning meetings concerning port security and the liquefied propane gas tankers involved the US Coast Guard, Port Authority, Department of Safety, Department of Transportation, local fire and police, and the Sea3 propane terminal.
- Governor Shaheen and the Attorney General, New Hampshire State Police and State Fire Marshal met with the New Hampshire Association of Chiefs of Police.
- The Attorney General, Office of Emergency Management and the State Police had interaction with US Attorney's Task Force.
- The Department of Environmental Services held a meeting with municipal water supply operators.
- The Department of Transportation held meetings with commercial airport managers from Manchester Airport, Lebanon Airport and Pease International Tradeport, as well as with managers of general aviation airports.
- The Department of Transportation met with representative of the bus transit industry.
- The Office of Emergency Management and the Department of Health and Human Services co-hosted a meeting of northern New England medical and emergency management organizations to continue the development of a regional medical surge capability.
- The Department of Health and Human Services hosted meetings with hospitals, infection control nurses and physicians, the Manchester Health Department, and the Red Cross.
- The Attorney General met with leaders of New Hampshire's Islamic community.
- Governor Shaheen hosted a meeting with representatives of the state's Congressional delegation to discuss New Hampshire's needs in terrorism prevention and response.
- The Governor's Office of Energy and Community Services participated in a meeting of the New England Governors' Conference Power Planning Committee.
- The Governor's Office of Energy and Community Services attended an Energy Supply and Emergency Preparedness regional meeting, which included staff from the US



Department of Energy, US Department of Transportation, US Coast Guard, and representatives from the six New England states.

- Governor Shaheen hosted a meeting with the US Coast Guard, US Marshal, US Attorney, US Customs, Department of Safety, and the Department of Resources and Economic Development concerning Canadian border security.

Frequent updates concerning the Commission's activities were provided to Governor Shaheen.

On November 1, 2001, several members of the Commission participated in a Joint Assessment of Terrorism Preparedness conducted by the Environmental Protection Agency (EPA), US Department of Justice (DOJ), and the Federal Emergency Management Agency (FEMA). The purpose of this federal effort was to initially determine – on behalf of the Office of Homeland Security - the readiness levels of State governments to respond to terrorist and Weapons of Mass Destruction incidents, and what shortfalls need to be addressed to achieve the appropriate readiness level.

On November 8, 2001, the Commission met with the leadership of the New Hampshire legislature. Each member of the Commission briefed the leadership concerning his or her respective agency's responsibilities and activities concerning terrorism preparedness. Legislators offered input and suggestions concerning additional efforts that the Commission might undertake.

The writing of this report involved many contributors. Each Commission member was asked to write a preparedness assessment, an agency preparedness summary, and an analysis of his or her agency's preparedness to react to specific disaster scenarios, such as a prolonged electrical power outage, a chemical incident, a major explosion, a disease epidemic, or contamination of the food supply. Many did so after consulting first with various stakeholders in their field to gain input and advice.

Each Commission member was also asked to identify existing emergency response plans his or her agency had developed in recent years and whether or not the plan had been tested in a

field exercise or, if applicable, in an actual emergency. If the plan was independently graded by an outside agency, such as FEMA, the member was to indicate that as well and provide an executive summary of the findings to the Commission.

This information was subsequently evaluated, correlated and re-drafted. The draft was reviewed, modified and then approved by the full Commission.

## SECTION III

# The State's Emergency Response System

Emergency response in New Hampshire is a primary responsibility of local government. It is the first responders - the fire, police, public health agencies and emergency medical service providers - who take command of an incident and take the necessary actions to stabilize and mitigate the emergency. At the same time, there is a strong tradition of mutual aid and cooperation among local, regional, county, state and federal agencies. A large-scale emergency response could involve dozens of agencies at various levels of government, working together in accordance with mutual aid agreements, written emergency plans and the New Hampshire Emergency Operations Plan. The command and control of emergency incidents has improved dramatically in recent years with the implementation of the Incident Command System.

The Incident Command System (ICS) is a command structure that is expandable to fit the needs of any incident or emergency. It has been used by the fire service for decades and is being used more and more by law enforcement and for a variety of non-emergency situations, such as managing public events. A single fire engine responding to a small brush fire uses a simplified form of ICS to assign tasks to firefighters, but this command structure can be expanded almost indefinitely to incorporate additional manpower and equipment.

The theory behind ICS is that one individual can only effectively supervise between three and seven others, so that the command structure is expanded in stages - and authority delegated - as needed. It allows even agencies that have not previously worked together to operate in an orderly fashion using a familiar structure. It also provides the framework for a sustained response if a long-term operation is necessary.

Mutual aid is the cornerstone of the emergency response system in New Hampshire. Since no single jurisdiction or agency, including state government, can be expected to have the resources needed for a major emergency or for multiple emergencies, there is a heavy

dependence on the sharing of personnel, equipment and specialized capabilities. Mutual aid is shared among all levels of government (e.g., local, state, federal), for all types of emergencies (e.g., fires, crimes, medical crises, natural disasters), and across state lines and the international boundary with Canada.

In nearly all cases, New Hampshire's emergency response system is activated with a citizen's call to 9-1-1. The statewide Enhanced 9-1-1 system is operated by the New Hampshire Bureau of Emergency Communications, with the primary Public Safety Answering Point (PSAP) located in Concord. Upon receipt of an emergency call, the PSAP telecommunicator determines the nature of the emergency, verifies the exact location and forwards the call to the appropriate local or regional emergency dispatch center or State Police troop station for follow-up action. The emergency dispatch center is responsible for dispatching the appropriate personnel and equipment, coordinating communications and the deployment of additional resources. While emergency equipment is on the way, the 9-1-1 PSAP telecommunicator can also provide over-the-phone first aid and emergency care instructions to the caller.

When an emergency apparatus arrives on the scene of the incident, an incident commander takes control and determines if additional resources are needed. For incidents other than crimes, the incident commander is typically the senior fire officer on the scene. The incident commander has considerable authority under state law to request additional resources, to control the deployment of personnel and equipment, to evacuate buildings or areas, to block roads, and to take those steps reasonably necessary to control or mitigate an emergency. Under the ICS system, the incident commander can delegate responsibilities to other qualified individuals to ensure proper command and coordination of the emergency.

State agencies provide considerable support to local emergency responders during a major incident. The resources that are available include, but are not limited to:

- Communications command posts (State Police, Office of Emergency Management)
- Traffic control (State Police, Department of Transportation)
- Forest firefighting (Division of Forests and Lands)

- SWAT team and bomb squad (State Police)
- Specialized investigative services (State Police, State Fire Marshal, Division of Forests and Lands, Attorney General, Environmental Services, Public Utilities Commission)
- Public health assessments (Health and Human Services)
- Hazardous materials technical assistance (Environmental Services, Health and Human Services, State Police, Motor Vehicle, State Fire Marshal, Emergency Management)

Six regional hazardous materials emergency response teams (HazMat) have been formed in New Hampshire, all comprised of equipment and personnel - both paid and volunteer - from local fire departments. The regional HazMat teams carry protective gear and have the specialized training needed to safely handle many types of chemical or biological incidents. The six regional HazMat teams cover only 146 of the 234 communities in the state, which comprise approximately two-thirds of the state's population. The remaining communities in New Hampshire are not covered by a specific, assigned HazMat team. Instead, these areas - which are collectively known as the "White Zone" - are covered by whichever of the existing six teams are available at the time of the emergency.

The HazMat teams are deployed upon the request of the local incident commander at a hazardous materials incident, and work under the direct command and control of the incident commander. The State Fire Marshal is responsible for coordinating the activities of state services during a hazardous materials incident. The State Fire Marshal or his designee has the authority to assume command of a hazardous materials incident at the request of the incident commander or if the State Fire Marshal or his designee believes that the welfare of the public is not being appropriately served.

As an incident expands in severity or magnitude beyond the capabilities of local or regional assets, it may be necessary to implement the state's Emergency Operations Plan. This plan, which is administered by the Office of Emergency Management (OEM), is an all-hazards blueprint designed to provide a coordinated response to any type of major emergency. OEM also administers the Radiological Emergency Response Plans for both the Seabrook Station and Vermont Yankee nuclear power plants. The statewide emergency response plans are

designed to facilitate the rapid and efficient deployment and coordination of local, state and federal resources.

For example, the New Hampshire National Guard plays a broad support role in a disaster situation. Under the direction of the Governor, the National Guard can deploy:

- Soldiers for evacuation and point/area security needs.
- Communications systems.
- Equipment such as heavy machinery, trucks, generators, potable water tanks, field tents and mobile hospitals.
- Medical evacuation helicopters.

The state's Emergency Operations Plan also uses the resources of volunteer organizations (e.g., Red Cross, Salvation Army), state and local public works agencies, public health agencies, social service agencies and even private construction companies.

To coordinate response efforts in an emergency, OEM maintains an Emergency Operations Center (EOC) in Concord. At this command post senior-level officials and technical advisors from various organizations gather to broadly manage rescue, evacuation and remediation efforts with input and data provided by personnel at the scene itself.

The EOC operates at five levels:

Level One	Normal Operations
Level Two	Low Intensity Event
Level Three	High Intensity Event
Level Four	Complex, High Intensity Event
Level Five	Recovery Phase

Each of these operational levels has a minimum suggested staffing pattern, but actual staffing is determined by the specific nature of the emergency. Senior OEM staff (e.g., director, assistant director, chief of operations) have the authority to declare a particular operational level.

In the event the EOC in Concord is unavailable for use, an alternate location has been identified.

State law (RSA 107-C:5) empowers the governor to declare a State of Emergency in the event of a “natural, technological or man-made disaster of major proportions.” Under a State of Emergency, the governor can, if necessary, assume direct operational control over all or any part of the emergency management functions within the state. The Office of Emergency Management is the conduit for this command function and provides the coordination of local, state, federal and private response and recovery efforts. OEM also provides working and communications facilities for the governor and other key officials to ensure the continuity of state government during a State of Emergency.

The aforementioned description serves most emergency situations New Hampshire is likely to encounter, including fires, explosions and severe weather. However, in the event there is ever a terrorist attack involving the use of a biological agent, the first responders are the health sentinel systems, including hospital emergency rooms, private medical practices and the New Hampshire Department of Health and Human Services' (DHHS) various disease-surveillance partners. In conjunction with confirmation of the biological agent by the DHHS Public Health Laboratories, disease specific management protocols will be used.

Communicable disease specialists from the DHHS Office of Community and Public Health will direct this clinical and public response. The Incident Command System will come into play if an emergency response is needed to: 1) carry out mass casualty treatment and care, 2) perform decontamination procedures, 3) provide public safety services or evacuate a municipality or region of the state, or 4) respond to potentially contaminated items.

In summary, the state’s emergency response system has evolved over many years into a modern, largely decentralized effort that depends heavily upon local resources and mutual aid. It continues to be successful primarily because of the close working relationship between fire, police, and emergency medical services, and between state, county and local government agencies and vital industry representatives. The citizens of New Hampshire are well-served by this system.

To illustrate this, the Commission lists the major activities that took place in New Hampshire in the days and weeks that immediately followed the September 11th terrorist attacks by state agencies to enhance security measures and, thus, protect the lives of residents:

### **Department of Safety (DOS)**

- On September 18, 2001, the Department of Safety formed a Security Assessment Task Group, comprised of representatives from the State Police, State Fire Marshal's Office and Marine Patrol. The Task Group assisted local law enforcement and fire service with security assessments at over a dozen following critical facilities throughout the state and have implemented numerous improvements. Additional security assessments are on-going.
- The New Hampshire State Police established a full time anti-terrorism intelligence unit to gather, analyze and disseminate critical information to local and federal law enforcement agencies.
- The New Hampshire Marine Patrol established regular patrols of Portsmouth Harbor and the Piscataqua River in conjunction with the United States Coast Guard. Three new Marine Patrol law enforcement positions have been budgeted and approved, and a new, heavy-duty winterized patrol boat has been ordered.
- Following the FBI's request that law enforcement agencies should be on "high alert," the New Hampshire State Police re-deployed supervisors, detectives, Bureau of Enforcement personnel, and Aggressive Driving Unit personnel to increase round-the-clock uniformed patrols of the state's highways and critical facilities.
- Ten new Division of Motor Vehicles Inspector positions were approved by the legislature. These positions will be assigned to enforce hazardous materials transportation regulations throughout the state, with special emphasis on trucks crossing the state line and the international border.
- The State Fire Marshal's Office, in conjunction with the Department of Health and Human Services, Department of Environmental Services and Office of Emergency Management, coordinated several briefings for regional hazardous materials team leaders to develop updated emergency protocols and procedures for the handling of anthrax



threats. In addition, recommended first responder guidelines for biological and chemical emergencies, including anthrax scares, were sent to every fire, police, and emergency medical agency in the state.

- The State Fire Marshal's Office continues to compile daily reports for the Federal Emergency Management Agency concerning anthrax scares and other terrorism threats in its role as the Governor's Point of Contact to the White House Office of Homeland Security.
- In cooperation with the Department of Administrative Services, New Hampshire State Police, Department of Health and Human Services, and the Concord Fire Department, training was provided to state employees concerning proper mail handling techniques.
- **The Division of Fire Standards and Training will continue to offer courses in incident command, weapons of mass destruction (WMD), and all elements of first response. Additional courses in response to terrorism and basic WMD have been added for law enforcement officers. This is the first time the Fire Academy has offered courses specifically for law enforcement. The scheduled courses will begin in late November.**
- The Department of Safety, in conjunction with the Office of Emergency Management, coordinated state agency response to several hundred "anthrax scares," provided direct guidance and assistance to local emergency responders, and assisted with the transport of suspected samples to the DHHS Public Health Laboratories in Concord.

### **Department of Health and Human Services (DHHS)**

- Formed first medical syndrome-based surveillance for biologic threats in the state including:
  - Hospital Emergency Department Surveillance
  - Veterinary Surveillance (in cooperation with the Department of Agriculture, Food and Markets)
  - Real-time death certificate review
  - Medical Examiner, Infectious Disease and Dermatology based projects
- DHHS responded to more than 600 calls received from the public about anthrax and bioterrorism through a 24 hour 7 day per week hotline.

- Provided epidemiologic investigative response to 13 concerns of human cases of anthrax.
- Provided three different medical guidelines that were sent to the majority of health care providers in the state.
- Provided approximately 20 different presentations to medical professionals, first responders, postal workers and other businesses on bioterrorism topics.
- Coordinated the first all-New Hampshire hospital meeting for bioterrorism response.
- Staffed the Public Health Laboratories 24-hours daily in order to receive anthrax specimens and begin testing process as quickly as possible.
- Completed the protocol to begin DNA testing for anthrax.
- Co-facilitated the first New Hampshire emergency response meeting on medical-surge capacity.
- Established a bioterrorism web page for frequently asked questions about anthrax.
- Daily press briefings were held, including information on biological terrorism and the safety, health, and mental health information needed by the public.
- Immediately following the September 11 attack, community mental health centers (CMHC) were sited at local schools to be able to provide support and consultation to students and staff.
- DBH met with stakeholders and began work to revise and up-date plans for mental health system response to disasters.

### **Office of Emergency Management (OEM)**

- Accelerated the pace of ongoing threat and vulnerability analyses of critical facilities being performed by subcommittee of the New Hampshire Anti-Terrorism Task Force (NHATTF) based on a combination of military special operations experience and templates, guidance provided by USDOJ and engineering and operations experience of team members. Met with PUC, NHATTF members and major utility owners to review the process, agree on protocols being used for protection of sensitive information and discuss graduated series of protective measures that can be taken individually and collectively at various threat levels.

- Coordinated completion by NHATTF of statewide Threat and Vulnerability Analysis and Needs Assessment for USDOJ Equipment Grant and preparation of Three Year State Terrorism Preparedness Strategy.
- Coordinated assessment of New Hampshire's preparedness to deal with catastrophic Weapons of Mass Destruction (WMD) incidents for presentation through the Federal Emergency Management Agency (FEMA) to national Office of Homeland Security.
- **Continued public outreach on anti-terrorism programs and protective measures and responded to many inquiries from public and from local, state and national media.**
- Met with Seabrook Station and Vermont Yankee power plant management and the Nuclear Regulatory Commission to review security measures, Emergency Action Levels, Continuity Of Operations Plans, and contingency support arrangements with local, county, state and federal law enforcement agencies.
- Worked with local and state officials to refine contingency plan for major New Hampshire International Speedway events.
- Increased outreach to New Hampshire's business community in areas of business continuity and protective measures for dealing with threat of terrorism and other hazards and continued outreach to the general public on personal protection and emergency preparedness.

### **Department of Environmental Services (DES)**

- The DES Hazardous Materials Emergency Response team responded to numerous suspected-anthrax incidents at post offices and state offices, particularly in the so-called "White Zone." DES staff entered potentially contaminated areas in Level B suits (which includes self-contained breathing apparatus) to collect potentially-contaminated materials and decontaminate areas of concern.
- In October, in cooperation with the Environmental Protection Agency and New England Water Works Association, DES developed and presented a course on water supply security and preparedness. This was the first course of its type in New England.
- Guidance on improving facility security has been provided to owners of water supply systems, dams and wastewater treatment systems.

- DES has updated and expanded emergency response plans and further defined future equipment and training needs.
- DES Dam Bureau has performed assessments of the vulnerability of state-owned dams and taken measures to improve security at high hazard dams.
- Technical support has been provided to public water suppliers and dam owners as they seek to improve security of their facilities.
- In November, in support of additional security measures by the Manchester Water Works, DES adopted emergency rules to further restrict access on the western half of Lake Massebesic where the water intake is located. These rules will be effective for 180 days.

### **Public Utilities Commission (PUC)**

- Provided technical assistance to law enforcement and emergency services personnel in their review of utility infrastructure security.
- Reviewed internal communications procedures and have undertaken project to compile a centralized operations manual.
- Arranged briefing by industry executives for Governor's Commission regarding utility response to the September 11 attacks.
- PUC engineers have begun project to identify various industry standards for security with goal of working jointly with law enforcement and emergency personnel to review utility security plans.

### **Governor's Office of Energy and Community Services (ECS)**

- Initiated immediate contact with terminal operators to assess status of distillate fuel supply and be apprised of security measures undertaken by the operators.
- Contacted immediately by the Independent Systems Operator of New England (ISO-New England) to be informed of security measures employed, and participated in scheduled briefings for the six New England states to assess power needs for the regional. (Note: ISO-New England is a not-for-profit private entity that manages the New England region's electric bulk power and generation and transmission system).

- Maintained daily contact with terminal operators and key retailers and suppliers to monitor distillate fuel supply and price.
- Key agency personnel participated in regional events (conference calls, meetings) to address supply and security issues and the implications for the New England states.
- Organized a meeting that included representatives from the PUC, Department of Safety and one of the electric companies to discuss security measures at both the state and regional level.
- Reviewed the State Energy Emergency Response Plan (SEERP) and consequently will update the SEERP to better address security related issues.
- Conducted a Winter Fuels Meeting with retailers and wholesalers where security matters were discussed in addition to price and supply projections for the upcoming heating season.
- ECS Refugee Coordinators contacted social services agencies that work with the Refugee Community to provide support services. Outreach and information also was initiated and provided to city officials in key resettlement areas.

### **New Hampshire National Guard (NHNG)**

- In response to guidance regarding the increased threat received from the Department of Defense and the National Guard Bureau, the following actions were initiated:
  - New Hampshire Army National Guard (NHARNG) security personnel were armed and initiated enhanced security measures at all locations.
  - The New Hampshire National Guard (NHNG) Joint Operations Center established 24-hour continuous operations.
  - Pease Air National Guard Base (PANGB) initiated enhanced security. State security personnel were issued weapons.
- The New Hampshire Army National Guard federalized personnel and equipment in support of:
  - Standby alert for Combat Air Patrol missions (support provided from PANGB).
  - Scheduled refueling missions in support of fighter CAP (support provided from PANGB).

- **Deployed personnel and equipment overseas locations in support of national military objectives.**
- Governor Shaheen, in response to a request from President Bush, authorized the deployment of 43 National Guardsmen to enhance checkpoint security screening at the Manchester, Lebanon, and Pease International Tradeport airports.
- Governor Shaheen, in response to a request from President Bush and the FAA, authorized the deployment of 11 additional National Guardsmen to enhance checkpoint security screening at the Manchester Airport and Pease International Tradeport airports during the holiday season.

### **Department of Transportation (DOT)**

- Established an internal task force to look at security and disaster response issues and develop response plans.
- Worked with Maine and Vermont to address joint evacuation planning and mutual aid response capabilities.
- Participated in national work on protection and restoration of transportation facilities.
- Worked with New Hampshire State Police to increase security on critical bridges.

### **Department of Justice (DOJ)**

- Facilitated liaison between local police and state police with respect to incident reporting by sending a letter to all chiefs on September 28, 2001 and by meeting with the chiefs in Manchester, NH.
- Provided support and assistance to victim with support to a criminal prosecution of an alleged hate crime related to the aftermath of September 11.
- Processed a grant for Police Standards and Training to pay for the cost of hiring an anti-terrorist instructor.
- Established lines of communication with New Hampshire's Islamic community to address their needs and concerns.

## SECTION IV

# Current Threat Assessment

This section provides an overview of the various threats that potentially could affect the residents of New Hampshire today and in the near future.

Disasters, by their very nature, tend to endanger lives, disrupt commerce and destroy property. As a result, Government has long assumed the responsibility of ensuring the safety and well-being of its citizens, and playing a vital role in the disaster remediation and mitigation process. Today, the State of New Hampshire - with support from municipalities and public and private organizations - finds that it must be constantly prepared to handle the following consequences, any one of which could arise from a natural or man-made disaster.

- Prolonged power outages
- Disruption or contamination of the food or water supply
- Mass casualties
- Evacuation or sheltering of the public
- Degradation of critical facilities and vital systems
- Disruption of communication systems

Fortunately, many agencies and departments have recognized potential threats and have developed response plans to diminish their effects. Examples include the Radiological Emergency Response Plan, Influenza Pandemic Preparedness Plan, New Hampshire All-Hazards Emergency Operations Plan, and the Comprehensive Emergency Management Planning for Schools program.

## Threat Categories

New Hampshire is confronted with the prospect of a wide variety of natural hazards and man-made disasters, including:

**Earthquakes** - New Hampshire is considered to be an area of moderate seismic hazard. This means that the state may experience large (6.5 to 7.0 magnitude) earthquakes but not as frequently as a high-hazard area like California.

**Hurricanes** – All coastal states from Texas to Maine are at risk from hurricanes and New Hampshire is no exception. The major damage from a hurricane come from coastal storm surge (10+ feet), inland flooding and severe winds (75 mph and higher).

**Floods** – The most common hazard in New Hampshire is flooding. Annually a portion of the state experiences either coastal or inland flooding.

**Winter Storms** – Each winter season, severe weather can cause extensive damage, financial hardship and, sometimes, loss of life. Heavy wet snow has caused widespread power outages, while some winter storms have adversely impacted the delivery of fuels creating a disruption in supply.

**Wildfires** – Although wildfires strike New Hampshire every year, the largest wildfires - from a historical perspective - run in 50-year cycles.

**Tornadoes and Severe Winds** - Each year, two or three tornadoes are reported in New Hampshire. Most of these are of an intensity of F1 or F2 on the Fujita scale, and cause localized damage. The southwestern portion of the state is considered to be a special wind hazard area.

**Droughts** - Since 1999, large tracts of the United States, including New Hampshire, have experienced drought conditions for several months at a time. Drought hinders agricultural productivity, endangers public water supplies and amplifies the risk of wildfire.

**Infectious Diseases** - Diseases not normally found in New Hampshire are likely to appear in the future as a result of: 1) climatic changes, 2) global travel, 3) population growth and movement, 4) globalization of the food supply, 5) human behaviors, and 6) drug resistance.



This premise was substantiated with the arrival of West Nile Virus to America in 1999, and to New Hampshire in 2000.

**Hazardous Materials** - Many facilities in the state store or use industrial hazardous materials (e.g., hydrochloric acid, ammonia, toluene), in addition to trucks, ships and rail cars that transport gasoline, petroleum products and pesticides to and from New Hampshire.

**Fuel Shortages and Power Outages** - Energy shortages and electric power outages that are the result of human causes or natural disaster can last for a short period of time or can be longer in duration. The shortages or outages can also be a geographically isolated incident or occur statewide or throughout New England. Supply disruptions in oil, propane and gasoline may be the result of international or domestic events and can be impacted by interference in the fuel transportation system. Furthermore, electric power outages can occur due to excessive demand, either planned or unplanned outages of generators or distribution, and transmission system interruptions.

**Terrorism** - Terrorists use violence - or the threat of violence - to achieve a political objective. Possible terrorist activity could include use of explosive devices, shootings, chemical release, biological release or the use of a radiological device.

## SECTION V

# Readiness Assessment

The Commission finds that New Hampshire has been proactive in its efforts to establish response plans to a wide variety of potential emergency situations. Several agencies and groups - most notably the Department of Safety, Office of Emergency Management, New Hampshire Anti-Terrorism Task Force and the New Hampshire National Guard, with input from specialists in other fields such as public utilities - have already conducted assessments of the state's critical infrastructure, including government services, transportation centers, communications, ports, power, and water and food supply. Emergency response plans are often tested in field exercises and tabletop drills. Some of the more recent drills included TOPOFF Field Exercise (May, 2000), Northeast Region Chemical Weapons Tabletop Exercise (August, 2000), Seabrook Station Radiological Emergency Response Plan Drill (May, 2001), Dartmouth Biological Terrorism Exercise (June, 2001), and the Vermont Yankee Graded FEMA Exercise (October, 2001).

In the event an emergency should arise, resources exist to quickly respond - including local first responders, regional hazardous materials teams, and various state and federal assets. Most agencies, in fact, have mutual aid agreements in place to ensure an appropriate level of response in an emergency. For instance, fire departments, police departments and HazMat teams presently all assist one another when called upon.

## Readiness Assessment By Category

### **MASS CASUALTY INCIDENT**

#### **Present Situation**

An incident resulting in mass casualties could result in a sudden, increased demand for health-related services, including the transport of the injured to hospitals and their

subsequent medical care. There are 237 ambulance services licensed in the State of New Hampshire, which respond to nearly 100,000 emergency calls each year. The services are comprised of 4,460 EMTs/paramedics and some 500 emergency vehicles - thereby providing a significant asset to a major disaster. Unfortunately, the distribution of paramedics - the most highly trained emergency medical responders - is clustered in major urban centers of the state, leaving more rural areas underserved.

To handle medical emergencies, there are 26 community hospitals located throughout the state. The greatest number of these are found in the southern tier of New Hampshire where approximately 75% of the population base resides.

The Office of the Medical Examiner (ME) in Concord is responsible for the recovery, transportation and storage of human remains, as well as confirming the positive identification of the dead. It is also responsible for the recovery and preservation of evidence from human remains for criminal investigations.

### **Response Strengths**

- There are three active and two inactive Emergency Medical Service (EMS) regions identified in New Hampshire. Within each dispatch network or mutual aid compact, there are mutual aid agreements for response.
- The Department of Environmental Services, Department of Transportation, New Hampshire National Guard, US Army Reserve and many local municipalities can all provide heavy equipment (e.g., crane, backhoe, trucks) to assist in the removal of debris to reach trapped survivors at the scene of a disaster. Vehicles can also be used to help transport the injured to hospitals and triage areas. The Office of Emergency Management maintains a statewide inventory of all the heavy equipment owned by members of the Associated General Contractors of New Hampshire, who have agreed to allow the use of their equipment in an emergency.
- **The 26 community hospitals possess numerous assets to respond to disasters, including trained personnel and, in the case of Dartmouth Hitchcock Medical Center, helicopter transport of seriously injured victims. The New Hampshire National Guard**

**can supplement this effort with its own medical personnel and aerial MEDEVAC support.**

- In the event of a major disaster, the state can request that the US Department of Health and Human Services provide Disaster Medical Assistance Teams (DMAT) and Disaster Mortuary Operational Response Teams (DMORT) to assist emergency personnel. Each DMAT includes about 35 physicians, nurses and emergency technicians. Although they are trained and equipped to stabilize as many as 250 seriously injured victims in a 24-hour time period, their surgical capacity is very limited. There are 27 Level 1 teams in the United States, of which three are based in New England: two in Massachusetts and one in Rhode Island. With regard to DMORT, each team includes about 10 morticians, anthropologists and forensic specialists who are trained to identify victims and properly prepare them for burial. There are 40 DMORT members in New England.
- The Office of Victim/Witness Assistance within New Hampshire's Department of Justice provides death notifications, as well as crisis interventions and long-term support for the victims, witnesses and their families.
- The Office of the Medical Examiner has a mass fatality plan in place, as well as verbal agreements with medical examiner offices in Vermont and Maine for mutual aid assistance in the event of a major disaster.

### **Areas of Concern**

- The US Department of Health and Human Services has not yet formed a DMAT to cover the northern New England region, which includes New Hampshire, Vermont and Maine. The nearest DMAT is located in Massachusetts, and would have to travel to respond to an emergency.
- **New Hampshire's so-called "surge capacity" - the ability to handle a sudden influx of people requiring medical assistance - is limited. Immediately following the September 11<sup>th</sup> terrorist attack, the New Hampshire Hospital Association called all hospitals in the state and learned that 480 empty beds could have been made available at that time. There are a total of 3,400 licensed beds in New Hampshire, of which only 2,800 are staffed.**

- Emergency resources to deal with a mass casualty incident are largely clustered in urban areas. Should an emergency occur in a more rural location in New Hampshire, response time could be significantly delayed.
- There is only one full service city health department - Manchester - to augment Department of Health and Human Services emergency response efforts.
- Morgue capacity in New Hampshire is limited, with many hospitals possessing 2-6 slide beds. This would prove to be inadequate in a mass casualty incident.
- The mental health aspects of a disaster are largely overlooked. There needs to be an increased understanding and awareness among disaster responders of the mental health needs of potential victims and the community (including first responders), and increased coordination and collaboration as to how mental health providers would work in concert with other responders. This needs to be specifically addressed in all emergency response plans.
- The Office of the Medical Examiner (ME) is equipped with field kits to process 100 bodies at any given time. In the event of a mass casualty incident exceeding this figure, the ME would be overwhelmed.

## **CHEMICAL OR BIOLOGICAL ATTACK**

### **Present Situation**

The United States faces a heightened prospect that extremists could use - or threaten to use - biological or chemical agents. There are numerous militarized chemical agents that terrorists could either steal or attempt to manufacture - admittedly with some difficulty - including nerve gases like Sarin.

With regard to biological agents, the US Department of Defense and the Centers for Disease Control and Prevention (CDC) recognize the following as possessing the greatest potential for the loss of life: smallpox, anthrax (pulmonary), plague (pneumonic), tularemia, and brucellosis. They also acknowledge botulinum toxin and Ricin as potential weapons.

To detect a biological attack, New Hampshire has in place three surveillance systems managed by the New Hampshire Department of Health and Human Services' Office of Community and Public Health (OCPH). These surveillance systems are the first line of defense against bioterrorism:

- Sentinel Hospitals - A dozen hospitals - chosen mainly by size and location - provide the state with daily reports on the number of emergency room visits, respiratory complaints, serious stomach and intestinal ailments, rash complaints, and patients with fever.
- Veterinarian Surveillance - The state's 500 practicing veterinarians notify the Department of Health and Human Services if anthrax or other diseases that affect human beings show up in animals.
- Mortality Reports - Real-time monitoring of death reports as they are logged into computers linking most of the state's vital records offices. This network eliminates delays caused by more-traditional paper reporting. New Hampshire is one of the few states that has this capability.

Augmenting these efforts is the Laboratory Response Network, a partnership involving 10 hospital and microbiology laboratories across the state and the Department of Health and Human Services Public Health Laboratories (PHL). Together, these labs are prepared to rule out threat agents in clinical specimens and immediately forward suspect specimens to the PHL for further testing.

New Hampshire relies on six regional HazMat teams to respond to - and contain - incidents involving suspected and known chemical or biological agents. In the event of a serious emergency, the state can request assistance from several specialized units, including the New Hampshire Department of Environmental Services Technical Support Unit, the US Army National Guard Civil Support Teams located in Maine and Massachusetts; the US Army Aeromedical Isolation Team; the US Army Technical Escort Unit; the US Marine Corps' Chemical/Biological Incident Response Force; and one of four National Medical Response Teams for Weapons of Mass Destruction.

New Hampshire, like most states, does not stockpile pharmaceuticals to respond to a biological incident. Instead, it relies on existing antibiotic supplies found in local pharmacies.

In the event of a severe disease outbreak or of a terrorist attack using a biological agent, the Department of Health and Human Services can request that the CDC immediately send one of its “Push Packages.” Part of the National Pharmaceutical Stockpile (NPS), these are pre-packaged, pre-positioned caches of medical supplies that can be delivered to any area of the continental United States within 12 hours. The first use of the NPS occurred on September 11, 2001 when special aid was provided to New York City in the aftermath of the terrorist attack.

### **Response Strengths**

- The Department of Health and Human Services (DHHS) has medical and nursing staff trained in disease surveillance, plus toxicologists with access to federal hazardous chemical databases. Additionally, the Public Health Laboratories (PHL) has microbiologists on staff with the experience to detect and identify unknown microorganisms. The PHL works closely with the Centers for Disease Control and Prevention in Atlanta, GA to provide the most accurate diagnostic testing available, including new DNA technologies for the detection of bacteria, viruses and toxins, including anthrax and plague. The PHL is in the process of adding a new laboratory building. It will provide additional safe working space for the handling of hazardous samples. The building is tentatively scheduled to be completed in 2003.
- Public health community nurses, community health centers, visiting nurse associations, health assessment, and lab staff provide local health service support, outreach and training.
- **DHHS has a surveillance system in place to detect disease outbreaks and biological attacks.**
- DHHS is developing a Health Alert Network (HAN) in the state to enhance the flow of critical information to and from local health officials. The development presently includes the purchase of state-level communications equipment and the dispersal of equipment grants to 12 local health officials. Four communities in New Hampshire are serving as pilot sites in the development process.
- In the event of a chemical or biological attack, the DOT has resources to assist in providing traffic control around the event location. It can also assist with road and

bridge closures, and in establishing detour routes. The New Hampshire National Guard can supplement this effort, as well as provide point and area security, if necessary.

- In the past, there have been limited training opportunities available to law enforcement with regard to responding to a terrorist incident involving biological or chemical agents. Now, however, nearly 180 law enforcement officers are receiving training via the New Hampshire Fire Academy.
- The Department of Safety has more than 20 lab criminalists who have special expertise in testing various specimens. They have also had FBI training in biological and chemical weapons. Their expertise could be used to augment some of the testing at the Department of Health and Human Services.
- Because New Hampshire was one of the two venues selected for the national TOPOFF exercise held in May 2000, emergency management and response agencies in the state now have some experience in how to deal with the consequences of a terrorist incident involving a weapon of mass destruction.
- DHHS possesses statutory authority to quarantine people infected with a highly-communicable disease.
- The New Hampshire National Guard possesses tremendous expertise and knowledge of chemical weapons, in addition to chemical-sensing equipment and personal protective equipment.

### **Areas of Concern**

- First responders - fire, EMS, health officials, local police, county sheriffs, food inspectors, State Police - do not have adequate Personal Protective Equipment (PPE) to safely respond to a biological or chemical incident.
- There is presently no regional HazMat coverage of the White Zone, which enlarged in size earlier this year when the Berlin HazMat team stood down.
- The response efforts of the Department of Health and Human Services - including its Public Health Laboratories - degrade with larger incidents or prolonged events due to the lack of available trained staff to provide coverage for second and third shifts.



- The Department of Health and Human Services needs to refine its plans on how to handle the logistics of receiving, transporting, distributing and administering the contents of a National Pharmaceutical Stockpile “push package.”
- Hospitals in New Hampshire have limited decontamination capabilities, as well as a limited number of isolation rooms.
- Ambulances are not equipped with chemical agent sensors, decontamination gear or chemical antidotes necessary to respond to a casualty scene involving chemical warfare agents, such as nerve gas.
- The New Hampshire State Police does not possess personal protective equipment to safely enter a scene contaminated with a biological or chemical agent.
- The present plan of direct communications between the New Hampshire State Police and key public health officials in the event of a biological or chemical attack needs to be strengthened.
- Due to the expected high number of casualties produced by a chemical or biological attack, the Office of the Medical Examiner is likely to be overwhelmed. Likewise, hospitals may not be able to handle the surge of injured or sick people anticipated to head for local emergency rooms.

## **TRANSPORTATION SYSTEMS**

### **Present Situation**

Transportation is vital to the state’s welfare and prosperity. Highway systems, air transportation, buses, shipping and railroads not only play an important role in tourism and commerce, but they are also vital in ensuring the distribution of food and energy products to all regions of New Hampshire. Hence, if there is a disruption of any key transportation system - whether by natural disaster or an act of terrorism - it could have devastating consequences on the state’s economy and on the safety and well-being of its citizens.

#### *Highway System*

Transportation needs and usage in New Hampshire have continued to grow over the past 30 years. Highway system capacity concerns on the major routes, including I-93 and I-95, pose

significant problems for the state. This is especially true if evacuation of a municipality is ever required in an emergency situation - including the possible evacuation of Boston, MA. It is vital that emergency responders be able to quickly and safely evacuate residents from a hazardous situation.

Recent completion of the Route 101 widening between Manchester and Hampton, and the FE Everett Turnpike expansion project in Nashua have improved safety and reduced congestion along those heavily traveled corridors. The widening of I-93 between Salem and Manchester is a top priority to increase safety and reduce congestion.

#### *Railways and Public Transit*

Not all highway capacity problems can be addressed simply by widening roads. The Department of Transportation is very active in developing alternative solutions, including public transit, rideshare programs, and rail corridor preservation and renewal. These systems could possibly be used to enhance evacuation efforts at the local level.

Rail and public transit alternatives to private vehicle transportation include the scheduled December, 2001 start-up of the Portland-to-Boston Amtrak passenger rail with stops in Dover, Durham and Exeter. Private bus companies provide transportation options along the I-93 and I-95 corridors.

#### *Airports*

There are 27 registered Public Use Airports in the state, including some privately owned. The growth and expansion of the Manchester Airport has exceeded most expectations, and records have been set annually for passenger volume and cargo shipments. In the aftermath of the September 11<sup>th</sup> terrorist attack, security has been enhanced at airports in the state - including the deployment of New Hampshire National Guard personnel - to help ensure the safety of traveling passengers. Private airports, however, generally lack adequate security measures.

### *Bridges*

There are hundreds of bridges in New Hampshire that are used by privately owned vehicles, commercial trucking services, public transportation systems, and railroads to span rivers, harbors and roadways. Should any of these be destroyed or incapacitated, it could adversely affect the state's distribution system for food, water and much-needed commercial products. It could also hinder response and evacuation efforts in an emergency.

### **Response Strengths**

- The Department of Transportation (DOT) maintains a road and bridge inventory database and mapping, which would be of considerable value in an emergency situation. The department also sustains a statewide fuel distribution network for gas and diesel fuel, which could potentially be used to refuel emergency vehicles in a disaster.
- **The DOT has 110 patrol shed locations throughout the state, many of which have emergency power. These could be used either as assembly points for emergency responders or for the caching of disaster supplies.**
- The DOT owns 300 dump trucks (and assorted heavy construction equipment), which could be used in an emergency to remove debris from a disaster site. Vehicles could also be used to help transport victims to medical facilities, a triage area or to a reception center. This augments the equipment that is available under the New Hampshire Municipal Public Works Assistance Compact and from members of the Associated General Contractors of New Hampshire.
- A statewide public works mutual aid agreement is in place.
- The New Hampshire Division of Safety Services' Bureau of Marine Patrol, has expanded its seacoast patrol enforcement to full-time coverage. The Marine Patrol is tasked with ensuring the security of the port facilities, power plants and bridges in the Portsmouth harbor area.
- The New Hampshire National Guard has deployed personnel to strengthen security at Manchester Airport.
- A Tri-state evacuation plan is presently being developed for Maine, Vermont and New Hampshire.

- In an emergency, the New Hampshire National Guard could provide engineering support and transportation equipment, including helicopters.

### **Areas of Concern**

- There is limited emergency power at signalized intersections throughout the state. This means local law enforcement officers are needed to control traffic, which taxes the police department's resources unreasonably.
- There is an inadequate supply of portable, changeable message signs and arrow boards in the state. In an emergency, these are used to direct citizens to an evacuation route.
- Private airports across the state lack adequate security.
- Department of Transportation personnel do not have personal protective equipment or adequate training to enter a scene contaminated with biological or chemical agents.
- **There is a need for further evaluation of the security needs of bridges.**
- In many areas of the state, there is a lack of local planning and coordination for a major evacuation.

## **PORT FACILITIES AND MARITIME COMMERCE**

### **Present Situation**

In the year 2000, more than 7 million tons of product were carried on the waters of the Portsmouth Harbor, including oil, coal, gasoline, gypsum, LPG, salt, kerosene, tallow, asphalt, caustic soda, cement and diesel fuel. The fishing industry is also quite active in the harbor. Additionally, tourists and recreational boaters all take advantage of the marine experience.

The harbor is home to a variety of industries that rely on access to the Atlantic Ocean, including the Portsmouth Naval Ship Yard, Portsmouth Fisherman's Cooperative, Granite State Minerals, Isles of Shoals Steamship Company, Georgia Pacific, Irving Oil and Shafmaster Fishing Company. Ocean-bound shipping entering or exiting any facility in Portsmouth Harbor is challenged by the tides, current and manmade structures. Vessels can only arrive and depart on the tide cycle.

The occurrence of a disaster or terrorist attack - for instance, the explosion of a liquid propane gas storage tank at pierside, the destruction of one or more bridges spanning the harbor, or the sinking of a ship in the channel - could endanger lives of workers and local residents and adversely affect the state's commerce.

There are presently several organizations involved in managing maritime operations and ensuring the safety of Portsmouth Harbor. The US Coast Guard is responsible for river traffic, safety and general maritime enforcement, and the US Army Corps of Engineers is responsible for all dredging activities. Whenever a foreign-flag ship arrives at Portsmouth Harbor, it is met by representatives from the Immigration and Naturalization Service, US Customs, and the US Department of Agriculture to ensure it is abiding by federal statutes.

As for the Division of Ports and Harbors (a.k.a. Port Authority) of the Pease Development Authority, it has limited jurisdiction over cargo, delivery and general commerce on the Piscataqua River. The Port Authority sets standards for harbor pilots, who provide navigation and assistance for all vessels in- and out-bound of the harbor.

As a direct result of the September 11<sup>th</sup> terrorist attack, security measures have been heightened for all port users. The "Captain of the Port" ruling issued by the Coast Guard has established a new set of protocols for all ships arriving at any terminal along the river.

In recognition of the potential danger posed by various hazards (e.g., fire, oil spill, explosion, collision) in the Portsmouth Harbor area, various local, state and federal agencies formed what is known as the Piscataqua River Cooperative and proactively established detailed emergency response plans. These plans address maritime emergencies that could occur either at dockside or offshore.

### **Response Strengths**

- The Port Authority, which owns an 11 acre site in Portsmouth to support marine activities, actively assists in the inspection, boarding and containment of any ocean-bound ship. Among its assets - all of which could be used in a marine disaster - are three harbor patrol boats, a 50,000 square foot warehouse and a 600-foot-long concrete dock

(32-foot draft). Supplementing this are the several boats owned by the Department of Environmental Services, which are moored in the Piscataqua River.

- The Port Authority maintains an inventory of all tidal water moorings in New Hampshire.
- The US Coast Guard has provided assets and excellent expertise to enhance security along the Piscataqua River and Portsmouth Harbor, and to ensure smooth shipping operations overall.
- **The Piscataqua River Cooperative has already established Emergency Response Plans for various maritime emergencies and disasters - both dockside and offshore. They have also carefully devised plans to respond to environmental issues involving fuel storage facilities.**
- Since the September 11<sup>th</sup> terrorist attack, the New Hampshire Division of Safety Services' Bureau of Marine Patrol, has expanded its seacoast patrol enforcement to full-time coverage with the hiring of three employees and the acquisition of a 26-foot vessel. The mission of the Marine Patrol, relative to the Seacoast Patrol, is to ensure the security of the port facilities, power plants and bridges in the Portsmouth harbor area. The Patrol coordinates patrol activities with the US Coast Guard to maximize coverage and effectiveness. Communications capabilities have been upgraded so that the Marine Patrol can effectively communicate with area law enforcement and the Coast Guard.

#### **Areas of Concern**

- There lacks uniform, consistent and coordinated security at all terminals along the river.
- There is an absence of timely, periodic underwater surveillance of the dock facilities and marine infrastructure along the river.
- There is a need for further evaluation of the security needs of the Port Authority's Market Street Terminal.
- There is no fire boat in Portsmouth Harbor or the Piscataqua River to respond to ship fires, dock fires and major fires at the petroleum storage tank facilities, or to provide a water supply for land-based firefighting units operating near the shore.

## **UTILITIES AND FUEL SUPPLIES**

### **Present Situation**

Public and municipal utilities provide energy, telecommunications or water service to virtually all of New Hampshire's 1.3 million residents. The energy and telecommunications infrastructures, in particular, comprise a complex network that constitutes the skeleton of the state's economy.

Although most utilities have back-up resources to handle isolated or single contingency events, multiple contingencies threaten the entire system. Furthermore, due to the widespread nature of the systems in question - especially in more remote areas of the state - it is difficult to fully deter those who intend to cause a disruption of services. If a utility were to be disrupted for a prolonged period of time, the state's economy would be adversely affected and the safety and well-being of citizens would be endangered.

### *Electricity*

Six franchised electric public utilities and four municipal utilities own and operate more than 2,200 miles of transmission line and 18,000 miles of distribution line, which blanket the state. Currently, regulated and unregulated sources own and operate approximately 2,700 MW of generation using nuclear fuel, oil, gas, coal, water and wood chips. The generation of all electric power in New England is controlled by a central dispatch located at ISO-New England. ISO-New England activates various numbered operating procedures to respond to emergencies. A prolonged power outage due to a natural or man-made disaster would affect medical systems, traffic signals, heating and cooling systems, security systems, and commerce.

### *Nuclear Power*

New Hampshire receives electricity produced by Seabrook Station and Vermont Yankee (Vernon, VT). Both facilities have stringent security actions in place - including physical anti-terrorism measures and armed personnel - which are reviewed by the US Nuclear Regulatory Commission (NRC) and the US Department of Energy. Furthermore, emergency response plans, which address - among other things - sheltering in place and evacuation concerns of surrounding communities, have been developed and are routinely tested.

In the weeks following September 11, state and federal agencies devoted significant resources to evaluating and increasing security at Seabrook Station. The Department of Safety's security evaluation team visited the site, the Office of Emergency Management received regular reports and updates concerning security enhancements, and the NRC imposed new security requirements. The New Hampshire Fish and Game Department assisted the US Coast Guard by providing armed patrols on the Brown River adjacent to the plant. During periods of high-alert, the federal government imposed "no-fly zones" around nuclear power plants. The Federal Aviation Agency (FAA) continues to evaluate the effectiveness of the "no-fly zones" as a security measure. The FAA has the sole jurisdiction to impose this requirement.

#### *Natural Gas*

Two franchise natural gas utilities, KeySpan Energy Delivery and Northern Utilities, Inc. serve more than 100,000 customers, located mainly in the southern portion of the state. In total, the companies own and operate 2,800 miles of pipeline as well as numerous transfer stations. Moreover, four interstate pipeline companies own and operate approximately 300 miles of transmission pipeline and transfer stations that crisscross New Hampshire. Disruption of natural gas supplies would adversely affect heating systems, fuel availability and prices, and manufacturing systems.

#### *Distillate Fuels*

Distillate fuels (i.e., oil, kerosene, diesel) are used for heating, cooling and transportation. New Hampshire is very dependent upon distillate fuels since 56% of its households heat with #2 heating oil and over 90% of the goods in New Hampshire are delivered by truck transport utilizing diesel fuel. There are two primary wholesalers of distillate fuels, both of which operate terminals on the seacoast. A prolonged shortage would cripple the delivery of goods and severely impact the ability to heat homes and buildings.

#### *Propane*

New Hampshire's propane supply is provided by an 18 million gallon tank operated by Sea-3, Inc. and is used by 10% of New Hampshire homes as the primary source of heating fuel.



Propane is also used by industry, small businesses and by other entities for miscellaneous purposes. A disruption in supply would impact those consumers' ability to heat homes and operate businesses.

#### *Telecommunications*

With respect to telecommunications, 11 franchised local exchange companies serve the state through nearly 900,000 access lines. Should the telecommunications system be disrupted, it would adversely affect the 911 system, cell phone use, Internet services, and business operations.

#### *Water Supply*

Approximately 65% (770,000 people) of New Hampshire's residents are served by 684 public water systems. The remainder of the population is served by individual wells. There are about 100 municipal or privately-owned water utilities that serve the majority of New Hampshire's population. A disruption to one or more of the major water supply utilities by contamination or damage to water supply infrastructure could result in serious, prolonged problems.

### **Response Strengths**

- Detailed emergency plans (Radiological Emergency Response Plan) exist for both Seabrook Station and Vermont Yankee, and are routinely tested. These plans address not only radiological response, but also evacuation, decontamination and sheltering issues. The last drill at Seabrook was conducted in May, 2001 and the last FEMA graded exercise was done in June, 2000. As for Vermont Yankee, the last drill took place in August, 2001 and the last FEMA graded exercise was conducted in October, 2001.
- The Nuclear Alert System phone provides a means of direct telephone communication between the control room, the State EOC and the State Police during an incident or exercise. It is tested on a monthly basis by Yankee Atomic in Bolton, MA.
- **Sensors are in place to detect radioactive release from Seabrook Station and Vermont Yankee. The Department of Health and Human Services supplements this with trained response teams which would conduct environmental sensing in the event of an**

**emergency. The Department coordinates the public health response and makes recommendations relative to the potential or actual exposure of citizens to radiation.** Health physicists - both on- and off-site - monitor for radiation dispersion and provide plume maps and make recommendations for protective actions.

- The DOT has radiological monitoring kits stored at its District Offices. These can be used by emergency responders to monitor radiation hazards.
- The Public Utilities Commission (PUC) has nuclear utility engineers on staff to provide technical support to the state's EOC and to the various agencies involved in a radiological emergency situation. In addition, Seabrook Station and Vermont Yankee each deploy a nuclear plant operating engineer to the State EOC in the event of an incident at their facility.
- The PUC maintains an emergency contact list for all utilities in New Hampshire, and has a gas safety engineer on staff who is trained to deal with major explosions and natural gas disruptions. In the event of an explosion or disruption, this engineer would provide on-site technical expertise to the State Fire Marshal and emergency personnel.
- In the event of an electric power outage, a PUC representative would act as the Energy Coordinator at the State EOC to provide a coordinated response in the restoration of service.
- ISO-New England has a series of protocols to manage the regional electric network during a capacity deficiency. In the event that ISO-New England declares a Power Watch or Power Warning, the Governor's Office of Energy and Community Services (ECS) activates the Energy Alert Network, an emergency contact list with representatives from all state agencies. New Hampshire is a part of a six state communication system that has been proven effective in avoiding rolling blackouts in New England.
- The New Hampshire National Guard and other organizations, state agencies and businesses have portable generators that could be put to use in a power disruption to keep vital systems operational. Additionally, the Office of Emergency Management and the New Hampshire National Guard are developing a statewide mobile generator fleet for standby power support to critical facilities.

- In the event a water utility is shut down, the New Hampshire National Guard could potentially provide affected residents with an emergency water supply with its “water buffalo” tankers.
- The ECS Fuels Task Force - which is comprised of state agencies, the American Red Cross and the New Hampshire Municipal Association - may be activated when there is a real or perceived risk to the safety and welfare of the citizens due to the supply and price of deliverable fuels.
- The federal Strategic Petroleum Reserve and the Northeast Heating Oil Reserve could provide New Hampshire with heating oil in the event of an emergency.
- In the past two years, New Hampshire has participated in regional and federal energy simulations. ECS also conducted an energy simulation for state and local authorities.
- ECS is prepared to implement the State Energy Emergency Response Plan (SEERP) in the event of a prolonged power outage or the disruption of a deliverable fuel or other sources of energy (e.g., coal). The course of action, which is coordinated with OEM and the PUC, depends on the severity of the situation.
- ECS already monitors domestic and international events for probable impact on New Hampshire energy prices and supplies.
- One-third of identified critical facilities in New Hampshire have generators to provide emergency back-up power in the event of a power outage.
- The Department of Safety’s communications dispatch center in Concord has on file all emergency plans for every dam and hydro-electric facility in the state. Each troop station has in its possession a copy of the emergency response plans for dams and hydro-electric facilities in the immediate area. The dispatch center has conducted exercises in the past on dam failure notification.
- Emergency action plans exist, or will exist by the end of 2001, and are exercised annually for all high and significant hazard dams in New Hampshire.
- **The Department of Environmental Services (DES), PUC and OEM provide technical assistance to public water suppliers and dam owners during catastrophic events. DES also has specialized equipment and construction workers available to rapidly respond to any dam emergency.**

- A public works mutual aid network exists for dams and public water supplies.
- The DES laboratory is capable of analyzing water and other liquid samples for inorganic, organic chemicals and some microbiological contaminants. The DHHS Public Health Laboratories is equipped to test samples for other microbiological contaminants that require more sophisticated analytical techniques.

### **Areas of Concern**

- Although PUC engineers have experience to contribute to critical threat assessment, they lack specific training to fully assess utility security plans.
- The PUC communications protocols need to be reviewed and updated.
- While the PUC has utility engineers on staff to offer technical support to the state's EOC during emergencies, additional coverage could be required during an extended scenario.
- The dispersed nature of the electric, gas and telecommunications networks poses substantial security challenges.
- The planning and preparedness for catastrophic events in public water supplies needs improvement by enhancing existing plans, exercises, and the training of state and local water utility officials.
- There is a need to fully assess - and then implement - water supply infrastructure improvements, such as fully capable inter-system connections for major water systems in New Hampshire's population centers to improve the overall reliability of the state's water supply delivery system during catastrophic events.
- The routine level of surveillance of New Hampshire's dams needs to increase in many cases, although the very highest hazard dams are reasonably addressed.

## **FOOD AND BEVERAGE SUPPLY**

### **Present Situation**

In New Hampshire, grocery stores typically have a three-day supply of food on hand; small stores, up to two weeks. (In an emergency situation, in which people tend to hoard food, the supply would be depleted substantially faster.) The state's food comes from all over the

world, with approximately 85% of it being brought to New Hampshire by truck. The rest is delivered by plane, followed by train and boat. So a disruption of any kind in the transportation system could endanger the state's food supply.

Within New Hampshire, there are nearly 4,500 food service establishments, dairy farms, commercial shellfish processors, milk processors, and bottled water and beverage plants, which are under the jurisdiction of the NH Department of Health and Human Services Bureau of Food Protection (BFP). (Note: An additional 2,000 food service establishments are under the jurisdiction of 15 self-inspecting cities and towns such as Manchester, Portsmouth and Nashua.) The BFP is charged with inspecting these establishments and ensuring the overall safety of the state's food supply. During natural disasters and other emergencies, the BFP is able to determine if food is safe for consumption. If the food is deemed to be unsafe, the BFP determines proper disposal and oversees its destruction.

The Bureau also participates in responding to foodborne disease outbreak investigations by identifying improper food storage methods, improper food preparation techniques and poor hygienic practices.

The Bureau of Food Protection's statewide efforts are augmented by trained individuals who are employed by the self-inspecting municipalities. They are responsible for ensuring food safety within their city's and town's limits.

The overall safety of America's food supply is dependent on the joint efforts of numerous state and federal agencies, including the Food and Drug Administration; US Department of Agriculture; Centers for Disease Control and Prevention; Cooperative State Research Education and Extension Service; National Oceanic and Atmospheric Administration's Bureau of National Marine Fisheries; Bureau of Alcohol, Tobacco and Firearms; US Customs Service; US Department of Justice; and the Federal Trade Commission.

### **Response Strengths**

- The Department of Health and Human Services' Public Health Laboratories is equipped to test samples for various foodborne and waterborne pathogens like salmonella, giardia

and E. coli. The Department also maintains a statewide surveillance system to detect foodborne disease outbreaks which may be associated with food product tampering, water contamination or contaminated food products.

- The DHHS Bureau of Food Protection has 10 inspectors to conduct food inspections statewide. Their efforts are supplemented by personnel from 15 self-inspecting municipalities. Additionally, the PHL - which is an FDA certified dairy and shellfish laboratory - also conducts a routine surveillance program with self-inspecting municipalities to detect food contamination problems.
- The DHHS Bureau of Health Risk Assessment has toxicologists trained to assess the threats posed by chemical contamination of food items or water supplies.
- In an emergency, the New Hampshire National Guard could assist with food and water distribution. Additionally, the National Guard and OEM can obtain portable, reverse osmosis water purification units (ROWPU) to turn salty or brackish water into drinkable water.
- The Office of Emergency Management (OEM) maintains a contact list of state food distribution liaisons and sponsors the Volunteer Organizations Active in Disasters (VOAD), which coordinates the efforts of more than two dozen public, non-profit relief organizations.
- OEM, DHHS and the Department of Agriculture have begun planning how to respond to Hoof-and-mouth disease (and other animal diseases as well).

### **Areas of Concern**

- There are not enough inspectors to inspect and ensure the safety of New Hampshire's food, dairy and water supply. For instance, the Bureau of Food Protection has 10 inspectors to inspect and monitor nearly 4,500 food service establishments, dairy farms, dairy and bottled water processors and commercial shellfish dealers. Of these 10 individuals, 8.5 full-time employees are dedicated to inspecting 4,100 establishments such as restaurants, grocery stores, schools and other types of food service establishments. The majority of these 4,100 establishments should be inspected at a minimum of twice each year. With only 8.5 full-time employees, the Bureau is well below the FDA's

recommended ratio of 1 inspector to conduct 280-320 inspections annually. To meet the FDA's ratio, the state should have between 25 and 29 inspectors.

- Food, dairy and water inspectors across the state have neither received adequate training nor acquired personal protective equipment and decontamination gear to respond to a chemical or biological incident.
- Although most large grocery stores have emergency power, it is not necessarily for their coolers and freezers. This means food that is beyond a safe temperature reading must be thrown away, thereby reducing the food supply available for consumption.
- Although the New Hampshire Emergency Operations Plan deals with all hazards, there is no emergency preparedness plan or communications protocol in place that specifically addresses events that could adversely affect food safety, dairy products, bottled water and drinking water supplies.
- The existing, complex food regulatory system slows the timely flow of critical communications from federal agencies to state agencies.

## **HAZARDOUS MATERIALS**

### **Present Situation**

There are many facilities in New Hampshire that have chemical inventories in excess of 10,000 pounds, and an equal number of facilities that are not required to report their inventories. Chemicals are transported over 15,000 miles of highway, 400 miles of railways, 1,200 miles of pipeline, three major airports and the Piscataqua River terminals. Hazardous materials are found in transportation, manufacturing, storage, waste water treatment systems, drinking water treatment systems, refrigeration systems, utilities, medical facilities, laboratories, schools, workplaces and homes.

There is no detailed data to reflect how many trucks on a given day are transporting hazardous materials across New Hampshire's roadways. National studies, however, show that approximately 15% of the commercial vehicles on the roadway at any given time are carrying hazardous materials. New Hampshire alone has 338,000 commercial vehicles registered.

Incidents occurred in all counties of the state and varied in size and magnitude of impact to the environment, property and health.

In light of the threats that have arisen in the aftermath of the September 11<sup>th</sup> terrorist attack, the Federal Highway Administration has asked all states to increase the vigilance over the movement of hazardous materials. Specifically, they have asked state officials to target hazardous materials (HM) carriers at the roadside and enhance driver only (Level Three) inspections of these carriers.

### **Response Strengths**

- **State officials and first responders have access to real-time plume prediction modeling computers. This enables the incident commander to determine exactly where a hazardous chemical plume could spread and, thus, where to focus emergency response assets and evacuation efforts.**
- The New Hampshire National Guard has access to Chemical Agent Monitors (CAM) and various field test kits to detect the presence of a chemical warfare agent.
- In an emergency, the New Hampshire National Guard could provide point and area security, as well as offer a limited amount of personal protective equipment to emergency personnel. Additionally, the National Guard could assist in decontamination efforts.
- There are six regional HazMat teams located in New Hampshire to respond to a hazardous material spill. They are specially trained and equipped to remediate most types of incidents.
- The Office of Emergency Management, in conjunction with the State Emergency Response Commission (SERC), has developed a Hazardous Materials/Terrorism Incident emergency response plan to deal with an incident involving dangerous substances. Additionally, DES has four full-time staff to respond to oil spills. OEM provides technical advice and coordination of support to hazardous materials incidents as requested.
- OEM's nuclear response teams can decontaminate up to 49,000 people in a 12-hour time period at six locations.



- The Department of Health and Human Services has a radiological chemistry laboratory for analyzing radioactive sources.
- City, state and federal agencies have extensive practical experience in successfully dealing with HazMat incidents in New Hampshire over the years.
- The New Hampshire State Legislature authorized funding for the Department of Safety Division of Motor Vehicles to hire 10 additional officers to enforce hazardous materials being transported on highways and across the state's borders.
- Department of Safety motor vehicle inspectors will soon be undergoing enhanced training in weapons of mass destruction, the transportation of explosives, and the transportation of hazardous materials.

### **Areas of Concern**

- There are presently several areas of New Hampshire that are not covered by a regional HazMat team. This means HazMat teams from other, more distant parts of the state must respond to incidents.
- Existing HazMat teams lack critical mass decontamination equipment and chemical agent detection sensors.
- Hospitals are not equipped to handle the mass decontamination of contaminated victims who arrive at their facilities by ambulance or personal vehicle without having first been decontaminated at the scene of the disaster incident.
- Local and state police currently train infrequently with HazMat teams on situations involving hazardous chemicals. This includes hostage situations, drug labs, and threats alluding to explosive devices or weapons of mass destruction.
- There is limited coordination and oversight of New Hampshire's six regional HazMat teams.
- The state's poison control system is limited in its capacity.
- Air sampling and meteorological coverage is lacking statewide.
- There is a need for increased statewide inspection of commercial trucks transporting hazardous materials during off-peak business hours.

## **INTERNATIONAL BORDER SECURITY**

### **Present Situation**

New Hampshire shares its northern border with the Canadian province of Quebec. Both New Hampshire and Canada share a strong interest in promoting trade, commerce, tourism and travel. Canada is New Hampshire's largest trading partner.

The remoteness of the border in a wilderness environment, as well as a desire to make travel across the border as easy as possible for law abiding citizens of both countries, makes it extremely difficult to guarantee security. Although border security is a federal responsibility, New Hampshire State Police, New Hampshire Fish and Game

Conservation Officers, the Coos County Sheriff's Office and local police departments have a long-standing tradition of assisting and cooperating with the US Border Patrol, US Customs Service and the US Immigration and Naturalization Service to apprehend those who choose to cross the border illegally. The ports of entry that serve New Hampshire are located at Pittsburg, NH and Beechers Falls, VT.

### **Response Strengths**

- New Hampshire State Police Troop F (Twin Mountain) provides 24-hour patrol coverage of the region adjacent to the Canadian border. Units patrol both the Canadian and Vermont borders, concentrating on activity around the Moore Dam, Comerford Station and the Wilder dams.
- The New Hampshire Department of Safety's Division of Motor Vehicles has increased the number of motor vehicle inspectors and, consequently, the number of commercial vehicle inspections at and around New Hampshire's borders.

### **Areas of Concern**

- The remoteness of the wilderness border with Canada enables illegal aliens and terrorists to covertly enter the United States.
- There is no interoperability capability of radio communications between New Hampshire State Police and the US Border Patrol. This communications problem exists

with the mobile patrols and the Border Patrol facilities in Beechers Falls, VT and Pittsburg, NH.

- New Hampshire State Police have observed there is minimal lighting at the Pittsburg, NH border crossing. This makes it difficult to observe and identify those persons and vehicles (including recreational snow machines and all-terrain vehicles) who are approaching and passing through the border, unless they pull directly up to the checkpoint.

## **EVACUATION AND SHELTERING**

### **Present Situation**

Much of New Hampshire's experience with emergency evacuation and sheltering has been associated with the Radiological Emergency Response Plans (RERP) for Seabrook Station and Vermont Yankee, plus a handful of actual incidents involving severe weather, such as hurricanes and ice storms. Experience has also been gained from managing traffic to and from the New Hampshire International Speedway in Loudon during NASCAR race weekends.

In the event an emergency should arise requiring the evacuation of a municipality or region, it would be largely handled by local police departments, sheriffs, the New Hampshire State Police and, in some instances, the New Hampshire National Guard. Collectively, they would ensure that traffic moves in an orderly fashion, that accidents are responded to in an expeditious manner, and that stalled vehicles are removed from roadways. The Department of Transportation would assist in the overall effort by placing lane markers and signage, changing two-way traffic to one-way (where necessary), and blocking off certain on-ramps and exits.

The Department of Transportation is presently designing an Intelligent Transportation System (ITS) on the I-93 corridor from Salem to Manchester. Such a system could prove valuable in an emergency that involves evacuation to, through or from that region of the state. The Department is also examining using all lanes of I-93, I-95 and the Everett Turnpike for travel in one direction into New Hampshire. This is in case a terrorist attack

strikes the Boston area, thereby resulting in a sudden surge of traffic into and through southern New Hampshire.

Five emergency evacuation Reception Centers have been established by the state as a result of preparations for a radiological emergency near Seabrook Station and Vermont Yankee. This system could be used as a model for establishing additional reception centers and evacuation shelters throughout the state. The Department of Health and Human Services is responsible for overseeing the operations of registration and rendezvous at the five Reception Centers; providing crisis counseling to those in need; working closely with the Red Cross to provide mass shelter and feeding; offering individual and family assistance grants to people affected by the disaster; and providing emergency food stamps.

The New Hampshire Chapter of the American Red Cross has identified additional shelters in many communities around the state, and would coordinate and oversee their operation.

### **Response Strengths**

- As a result of the RERP, five Reception Centers have been formally identified for sheltering purposes for any type of disaster in Keene, Manchester, Rochester and Dover.
- The Department of Health and Human Services will work closely with the American Red Cross in relocating and sheltering evacuees in other parts of the state. There presently exists a total statewide capacity to shelter 69,000 people.
- The New Hampshire National Guard can assist in evacuation and sheltering efforts by controlling traffic, offering military facilities (e.g., armories, hangars) as shelters, providing medical care to those in need, assisting in mass feeding, supporting transportation needs as required, and providing generators for emergency lighting and heating.
- The DHHS has Emergency Food Stamp and Disaster Assistance plans in place to efficiently handle the expected increase in applications during an emergency. With regard to food stamps, electronic benefits transfer (EBT) has been determined to be the preferred method of dispersing funds to applicants.

- Local police departments, New Hampshire State Police, New Hampshire National Guard and the Department of Transportation have plans in place for traffic control in the event of an evacuation notice in the Seabrook Station or Vermont Yankee areas.
- Volunteer Organizations Active in Disasters (VOAD) helps coordinate the emergency response efforts of volunteer agencies (e.g., Red Cross, Salvation Army) to ensure proper distribution of assistance.
- The Department of Transportation in Epping (and soon the Fire Academy in Concord) stockpiles wooden boards that can be fitted on the top of school bus seats to serve as evacuation beds for victims and hospital patients in an emergency. A plan is in place for buses to be quickly outfitted for this purpose to move 500 patients at one time.
- The Department of Health and Human Services' Division of Behavioral Health has a centralized and coordinated list of volunteer crisis counselors to assist those in need following a disaster.

#### **Areas of Concern**

- The present number of Reception Centers - and attendant staffing - is inadequate if a large-scale evacuation becomes necessary or if there is a tremendous influx of people from neighboring states in an emergency. Additionally, many of the centers are lacking adequate alternate power, lighting and personal sanitation resources.
- If there should be an ordered evacuation of Boston - or its suburbs - the traffic and population surge into New Hampshire could overwhelm the state's highways and emergency resources. A more comprehensive evacuation plan needs to be prepared.
- Many New Hampshire residents do not know what "sheltering in place" means or how to do it.
- There is no plan detailing how to transport contaminated patients to treatment facilities, or how to quarantine individuals who have been either exposed to or infected with a highly contagious disease.
- If the Electronic Benefits Transfer (EBT) system is not operational at the time of a disaster to provide emergency food stamps, there is no alternate paper issuance method in place to fall back on.

- In the event patients at hospitals and psychiatric facilities need to be evacuated, destination sites need to be pre-identified, along with volunteers to assist with the evacuation effort. Ambulance services, the New Hampshire National Guard and even private transportation companies (e.g., school buses, taxis, limousines, trucking) could help with this matter. Additionally, medication dispensing and supportive counseling services for patients need to be planned for in advance of an evacuation.
- In the event prisoners at jails and prisons need to be evacuated, destination sites need to be pre-identified, along with trained personnel to assist with the evacuation effort.

## **COMMAND, CONTROL, COMMUNICATIONS AND INTELLIGENCE**

### **Present Situation**

As mentioned previously in this report, the Incident Command System (ICS) is the primary command structure used by emergency personnel when responding to a disaster. It is a flexible system that can easily and quickly expand to fit the needs of any emergency. Most of today's emergency managers, EMTs, law enforcement and fire personnel are trained in the Incident Command System and understand how it operates.

The Incident Commander - usually the senior fire officer on the scene - establishes an Incident Command center to manage the overall, on-scene disaster response. When necessary, a mobile command post can be brought in for command, control and communications support. At present, the New Hampshire State Police has a mobile command post (with communications capability), and the Office of Emergency Management can deploy its Communications and Information Support Vehicle along with a detachable, stand-alone, transportable communications trailer and repeater antenna.

A variety of radio communications systems are used in New Hampshire to enable emergency managers and first responders to communicate with dispatch centers, local police and fire departments, the State EOC, New Hampshire State Police, hospitals, ambulance services, various state agencies and even the federal government, most notably the Federal Emergency Management Agency (FEMA). Each of these systems is unique and relies on

characteristics found within the electromagnetic spectrum to communicate with its intended audience.

For instance, low frequency systems (ELF, VLF, LF, MF) can travel much further than higher frequency systems can - and over or around hilly terrain - but they transmit less data in a given time period. By contrast, high frequency radio systems (HF, VHF, UHF, SHF, EHF) can transmit a lot of data in a short period of time, but the signal is significantly straighter and more directional - meaning it can be easily disrupted by hills and mountains.

A few of the radio communications systems presently in use in New Hampshire include:

- ASTRO<sup>®</sup> - A Very High Frequency (VHF) digital two-way radio network that provides a statewide communications capability for data and voice to state and local public safety agencies. It is used by the State Police, OEM, Department of Resources and Economic Development, and the New Hampshire Fish and Game Department.
- Emergency Communications Radio Network - A High Frequency (HF) statewide network consisting of remote emergency communications centers - some located at New Hampshire National Guard Armories - that enable local agencies and field teams to communicate with the State EOC in Concord.
- SHARES - A FEMA sponsored high frequency radio network that provides OEM with an intrastate and interstate communications capability in the event of a regional or national emergency. The system is backed-up with the Federal National Radio System (FNARS), a high frequency radio link to FEMA headquarters.
- Low Band Radio Network - An aging low frequency radio system that serves emergency management activities in various parts of the state.
- HEAR System - A portable VHF radio system that enables ambulances and hospitals to communicate with each other. The system is now more than 30-years-old and is in need of replacement.

Supplementing the state's existing communications systems are two amateur radio networks, Amateur Radio Emergency Services (ARES) and Radio Amateur Civil Emergency Services (RACES). These pools of trained radio operators can provide back-up radio links to the

State EOC, local emergency operations centers and the American Red Cross headquarters in Manchester during civil emergencies.

To notify New Hampshire citizens of an emergency, the state relies on the National Warning System (NAWAS) and the Emergency Alert System (EAS). The EAS, which replaced the Emergency Broadcast System in 1998, uses digital technology to allow emergency messages to be broadcast automatically (or manually) either statewide or to a specific area of the state. It can also issue alerts in languages other than English, and makes provisions for hearing and visually impaired people.

### **Response Strengths**

- OEM operates the State Emergency Operations Center (EOC) in Concord where top officials representing agencies involved in a disaster coordinate emergency response efforts while having the ability to quickly confer with one another and the disaster scene. Supplementing the EOC in a radiological emergency are the Incident Field Offices (IFO). The IFO for Seabrook Station is located in Newington; for Vermont Yankee, in Brattleboro.
- The digital Emergency Alert System is in place, and a so-called “Reverse 9-1-1” system is being evaluated to determine how well it could be used to notify residents in a community about a specific local emergency situation.
- The state’s 9-1-1 system is one of the most advanced in the nation. There are 90 full-time dispatch centers across the state to take emergency calls from the public and then convey the information to appropriate first responders. In the event a caller does not speak English, the 9-1-1 system makes available multi-lingual specialists to interpret the call. It can presently translate more than 140 different foreign languages.
- The Department of Safety’s communications dispatch center in Concord maintains notification protocols for emergency incidents that require the deployment of state resources.
- The New Hampshire State Police has established a Terrorism Intelligence Unit (TIU), consisting of three officers. The unit has been working closely with the State Fire



Marshal, local police departments and the FBI to gather and expeditiously disseminate any terrorism-related criminal intelligence.

- Both the New Hampshire State Police and the Office of Emergency Management have mobile command and communication posts available to be deployed anywhere in the state. The vehicles have direct links to the EOC in Concord.
- The Department of Safety has the ability to communicate with any New Hampshire State Police troop station. If there is any failure in communications, each troop station has the ability to communicate with adjacent stations. The communications towers used by the State Police in New Hampshire have a minimum 10-day supply of fuel. Each tower is equipped with a back-up generator to ensure communications will be in order.
- The state's new microwave communications system will be completed in December 2001. Hence, statewide radio communications will no longer be dependent upon any one tower.
- The New Hampshire National Guard has established a Joint Operations Center (JOC) to integrate New Hampshire Army and Air National Guard assets. It has also purchased additional equipment (e.g., high frequency radios, computers) to enhance JOC operations in the event of an emergency.
- **A statewide high frequency (HF) system is being installed by OEM and the New Hampshire National Guard to facilitate communications among emergency responders. Supplementing this, the Department of Transportation has a statewide communications network in place, along with more than 700 radios in the field that were all replaced within the past three years.**
- The Office of Emergency Management and the New Hampshire National Guard have entered into an agreement that allows OEM to place HF radios, high-band radios and packet radios at each of the 23 National Guard armories around the state to create remote emergency communications centers. The purpose is to create local area networks that enable local emergency response/assessment teams and the Incident Commander(s) to communicate to the EOC in Concord.
- A more survivable underground fiber optic line, independent of the existing telephone system, is being planned to enable state agencies to communicate with one another and with the EOC in an emergency.

## Areas of Concern

- Interagency communications is a serious concern. Units of different agencies are often unable to communicate with one another - or to communication centers - due to different radio channels being used. There is a lack of available radio frequencies for emergency responders and public safety officials to use. As a result, existing frequency spectrums are crowded. Additionally, there is no communications network that links every ambulance and hospital emergency department to key agencies and the major command and control centers of New Hampshire.
- There is concern about having adequate fuel supplies for mountaintop radio communications repeaters, which many need replenishing during prolonged power outages. This becomes particularly critical during the winter months when ice and deep snow hinder refueling.
- Many of the 90 full-time dispatch centers lack appropriate physical security measures, and do not possess adequate back-up resources (e.g., generators, computers) to remain in operation during an extended emergency.
- **There is a growing minority population in New Hampshire that does not speak English. As a result, they may not understand public emergency messages being broadcast to them.**
- Presently, it would be difficult to gain expedient access to vital computer databases and systems without knowledge of passwords. This would be exacerbated in an emergency when key staff may be incapacitated to provide the needed information.
- There is no real-time backup system to protect valuable data from all major management systems in case of a power disruption.
- The New Hampshire State Police lacks a secure telephone line to communicate with key state and federal agencies (e.g., FBI) about sensitive intelligence information.
- There is a lack of smooth and timely communications flow of critical information from federal agencies to state agencies.

## SECTION VI

# Commission Recommendations And Conclusions

After having carefully reviewed the emergency response assessment information provided to the Commission on Preparedness and Security by state agencies - in consultation with many of their key stakeholders - the Commission makes the following recommendations to enhance the State of New Hampshire's present ability to respond to a disaster, including acts of terrorism.

### **MASS CASUALTY INCIDENT**

- Increase the Department of Health and Human Services' system capacity and capabilities, including laboratory services, and medical surge capacity to deal with mass casualties.
- Expand the Office of the Medical Examiner's capability to respond to and handle an incident involving more than 100 bodies. The Office will likely need additional field kits, improved communications, personal protection equipment, body bags, refrigeration units, and fire-rated protective clothing.
- Consider caching and pre-positioning nonperishable ambulance specific supplies (e.g., backboards, splints, oxygen canisters) around the state to rapidly restock ambulances so they can quickly return to service. This will be especially valuable when responding to multiple casualty incidents.
- Consider storing basic disaster supplies (e.g., cots, blankets, first aid kits) at Department of Transportation patrol sheds around New Hampshire to facilitate response efforts in an emergency.
- Seek federal government assistance to establish a DMAT to cover northern New England, which includes New Hampshire.

- The mental health provider community needs to be involved in emergency planning efforts and in response-training exercises so that the mental health needs of the victims, first responders and the community at large are effectively addressed.
- Establish a statewide hospital mutual aid agreement.
- Carefully review existing mass casualty plans for New Hampshire to ensure they are consistent and integrative with plans presently in place throughout New England.

## **CHEMICAL OR BIOLOGICAL ATTACK**

- Continue to refine assessment and treatment protocols for first responder exposure to various biological agents.
- Provide key first responders, as well as food and water inspectors, with adequate personal protective equipment and training against biological and chemical agents.
- Assist local communities with the establishment of HazMat teams that would provide coverage in the so-called “White-Zone” regions of New Hampshire.
- Establish a public health infrastructure - including support to municipal health departments - capable of providing broad spectrum disease and high-volume demand triage, treatment, and rehabilitation.
- Support federal legislation to establish a National Guard Civil Support Team (CST) in New Hampshire so the state does not have to rely on CSTs based in Maine and Massachusetts for response coverage. (CSTs are specially trained and equipped to handle situations involving biological or chemical agents.) This will prove to be critical in multiple incidents occurring simultaneously in the New England region.
- Strengthen plans on how to receive, transport, distribute and administer the contents of a National Pharmaceutical Stockpile (NPS) “push” package.
- Explore the feasibility of establishing protocols to cross-train lab personnel at the Department of Environmental Services and the DHHS Public Health Laboratories to augment each other’s efforts in responding to a biological or chemical attack.

- Determine which hospitals in the state need equipment to properly decontaminate patients, first responders and medical staff in the event of a biological or chemical attack. Likewise, determine which Reception Centers need these resources as well to handle the expected influx of evacuees in a biological or chemical attack.
- Explore the feasibility of using Chemical Agent Monitors (CAM) by first responders to detect the possible presence of a chemical agent at the scene of a disaster.
- Expand the DHHS Public Health Laboratories capability to respond to a prolonged or multiple incident bio-chem attack by acquiring needed resources.
- Expedite the expansion of the Health Alert Network to include other towns.
- Provide the New Hampshire State Police's Major Crime Unit with personal protective equipment and bio-chem training so it is capable of conducting a criminal investigation in a contaminated environment. Similarly, provide law enforcement agencies - including the State Police, sheriffs and local police departments - with additional response training regarding biological or chemical attack.

## **TRANSPORTATION SYSTEMS**

- Enhance the number of emergency power sources to provide power at signalized intersections.
- Ensure an adequate supply of portable, changeable message signs and arrow boards to help direct traffic during an emergency.
- Enhance security at private airports statewide.
- Develop statewide evacuation plans using existing highway systems.
- Provide DOT personnel with personal protective equipment so they are able to safely respond to incidents involving biological or chemical agents.
- Provide training for DOT personnel who might be required to enter a scene contaminated with biological or chemical agents.
- Establish a plan to use the state's motor vehicle fuel distribution system to refuel local emergency response vehicles in the event of a disaster.

- Continue to evaluate the security needs for critical bridges throughout the state.
- Use DOT patrol sheds for the caching of basic supplies for a disaster.
- Establish a plan for using DOT patrol sheds as staging points for emergency responders.

## **PORT FACILITIES AND MARITIME COMMERCE**

- Enhance, where appropriate, the physical security at the Port Authority.
- Acquire a fireboat to respond to ship fires, dock fires and major fires at the petroleum storage tank facilities in Portsmouth Harbor or the Piscataqua River.
- Continue the Marine Patrol's presence along the Piscataqua River, Portsmouth Harbor and the state's seacoast.

## **UTILITIES AND FUEL SUPPLIES**

- Continue to enhance the utilities' ability to provide notification of an incident in an expeditious manner.
- The Governor's Office of Energy and Community Services, the Office of Emergency Management, and the Public Utilities Commission should meet to review the State's Energy Emergency Response Plan (SEERP) with regard to enhancing communication, clarifying roles and responsibilities, and coordinating response efforts. The Department of Safety should also participate in this review.
- The Department of Safety, Office of Emergency Management, Public Utilities Commission, and the Governor's Office of Energy and Community Services should conduct a joint review of the security plans for the utilities, distillate fuels terminals and propane supplier.
- Enhance present training efforts to respond to a major water supply catastrophe and to a dam failure.

## **FOOD AND BEVERAGE SUPPLY**

- Develop emergency preparedness plans for various scenarios and situations that could adversely affect food safety, dairy, and bottled water and water supplies in New Hampshire.
- Strengthen the capacity of the Department of Health and Human Services to evaluate health risks posed by the intentional chemical contamination of food and water supplies.
- Identify public and private sources of freezer trucks in the state that can be used in an emergency event to prevent food from spoiling.
- Encourage residents to establish and maintain at home a 3-7 day supply of food and water in the event of a temporary disruption in the delivery of goods at stores. This is in line with recommendations made by the Red Cross and FEMA.

## **HAZARDOUS MATERIALS**

- Expand the state's hazardous materials response team capabilities, most notably to provide mobile, on-scene decontamination of not only first responders, but victims of a hazardous material incident.
- Encourage training between HazMat teams and police SWAT for crisis situations (e.g., hostage incident) involving hazardous materials.
- HazMat teams need to acquire additional personal protective equipment and other necessary gear, as well as increase their coverage and overall response capabilities.
- Establish a Hazardous Materials Incident Response Coordinator - within the Department of Safety - to oversee the emergency response efforts of the state's regional HazMat teams, as well as to assist on-scene incident commanders with command, logistics and resources.
- Expand present training efforts on the Incident Command System so all first responders, sheriffs, EMTs and health officials know what to expect at a disaster scene, and what their roles and responsibilities are.

- Provide an adequate supply of Personal Protection Equipment (PPE) for firefighters, emergency medical personnel, health officials, food and water inspectors, local police, county sheriffs, New Hampshire State Police and public works employees to protect them from potentially deadly biological and chemical agents when responding to a disaster.
- Hospitals need to develop plans to carry out the mass decontamination of victims arriving at the emergency room.
- Acquire portable air sampling units and meteorological stations to provide adequate coverage in an emergency.

## **INTERNATIONAL BORDER SECURITY**

- Significantly improve the lighting at the Pittsburg, NH port-of-entry. This should include the perimeter of the building and the roadway past the facility.
- Establish radio interoperability capability between the US Border Patrol and the New Hampshire State Police.
- Encourage the federal government to continue 24-hour patrol coverage of the Pittsburg, NH port-of-entry.

## **EVACUATION AND SHELTERING**

- Using the evacuation plan presently observed in the EPZs around Seabrook Station and Vermont Yankee, OEM could develop a similar model that can be applied to towns and cities in the rest of the state. All communities should have a functional emergency evacuation plan.
- Develop plans - and identify resources - for the sanitation needs of evacuees and emergency responders and staff at reception centers and emergency shelters.
- Identify additional reception centers around the state to handle a sudden surge of evacuees in an emergency.
- Educate New Hampshire residents about “sheltering in place.”



- Identify and maintain a manifest of health professionals who can volunteer their services in an emergency at the shelters.
- Identify alternate sources of power and lighting (e.g., battery, generator, lantern) for shelters and district offices that may be used at reception centers in an emergency. Likewise, continue to expand the New Hampshire Mobile Emergency Generator Program.
- Determine a paper issuance method if EBT for emergency food stamps is not operational.
- Determine a method (including a backup plan) to link the EBT to the New Hampshire Treasury Department in an emergency situation to enable benefit (cash) issuance to clients.

## **COMMAND, CONTROL, COMMUNICATIONS AND INTELLIGENCE**

- Improve the interoperability and availability of communications systems to have better capabilities to: a) initially alert emergency responders, local, state and federal agencies and the public; b) communicate more effectively between local, state, and federal agencies during the response and mitigation phase of an incident; and c) facilitate an orderly and effective evacuation if necessary.
- Create a reliable, redundant and secure interagency communications network that links major state agencies, health agencies, hospital emergency departments, dispatch centers, fire departments, police departments, sheriff departments, emergency medical services and the State EOC.
- Explore ways in which to strengthen and improve present statewide emergency coordination efforts and communications flow among state agencies.
- Establish the capability for public health and transportation officials to communicate via two-way radio with the New Hampshire State Police and the State Emergency Operations Center.
- Encourage the FCC to make more radio frequencies available in New Hampshire.

- Examine how to make communication towers less vulnerable to attack and to reduce on-going maintenance requirements. Likewise, develop plans to ensure that mountaintop towers and repeaters can be replenished during prolonged power outages.
- Acquire additional mobile command posts - as well as additional mobile communications posts - for key agencies, including the Department of Health and Human Services, Department of Transportation, and the Office of Emergency Management. Examine the possibility of strategically pre-positioning incident command vehicles in the Department of Transportation maintenance districts.
- State agencies and departments that provide critical services to the residents of the state should consider the possibility of establishing off-site operational facilities command posts to ensure continuity of operations in the event their main offices are damaged or destroyed in a disaster.
- Strengthen efforts to tap into New Hampshire's volunteer resources, including individuals who have unique or high-demand skills that can be used in an emergency.
- Develop public messages and advisories in various languages suitable to reach residents who do not speak English.
- Schools, counties and municipalities need to ensure they have emergency plans that are current, accurate and reflect the availability of present resources.
- State agencies with critical databases need to develop protocols to access vital computer management systems and databases in an emergency. Likewise, such agencies need to also establish a real-time backup system to an off-site location to ensure data safety and continued availability.
- Dispatch centers around the state need to ensure they have appropriate back-up systems to continue functioning in the event of a disaster.
- The Department of Administrative Services should evaluate the security needs of state agency facilities and standardize, where appropriate, security measures.
- The Department of Administrative Services should continue to evaluate state government's vulnerability to various types of cyber-attack and take actions to reduce that threat. Agencies with critical computer systems should be provided with real-time back-up systems to ensure their continued operation during a disaster.

- Examine and amend, where necessary, statutes to strengthen the state’s role in preventing acts of terrorism. Examples include RSA 158:31 (explosives and weapons of mass destruction); RSA 158:9-b (explosives license requirements); RSA 263:40-a (driver’s license data); RSA 91-A (“Right-to-Know” law), and the establishment of severe penalties for terrorism hoaxes.
- The Commissioner of Insurance should evaluate the impact on New Hampshire businesses of proposed changes to insurance policies that would provide for a so-called “terrorism exclusion.”
- The state should continue to update its database concerning “critical facilities,” which should include risk assessments, vulnerability studies, response plans and other information crucial to emergency responders.
- The New Hampshire State Police should continue to administer a terrorism-related intelligence system and disseminate information to local police departments.
- The federal government should be encouraged to issue security clearances to appropriate state officials in order to enhance the state’s ability to evaluate the credibility of potential terrorist threats.

## Conclusions

In accordance with its mission, the Commission on Preparedness and Security has evaluated New Hampshire's readiness to respond to terrorist attacks.

New Hampshire has a strong emergency response system that has the capacity to handle a broad range of emergency events, including both natural and man-made disasters. New Hampshire's state agencies and local emergency response organizations have done considerable planning and preparations for a terrorist event. However, it is clear that in the event of multiple terrorist events or an event with mass casualties, existing resources would be taxed.

At the federal level, and in states across the country, our nation has just begun the process of evaluating the threats we face in the post-September 11<sup>th</sup> world and of determining the level of preparedness and security we need to confront those threats. As this process moves forward, New Hampshire and other states will seek guidance and assistance, including fiscal resources, from the federal Office of Homeland Security. It is expected that the federal government will help states to evaluate threats, define strategies and identify solutions.

There are, however, steps New Hampshire can begin taking now to further enhance its preparedness and security in light of the events of September 11<sup>th</sup>. These steps fall into the following general categories:

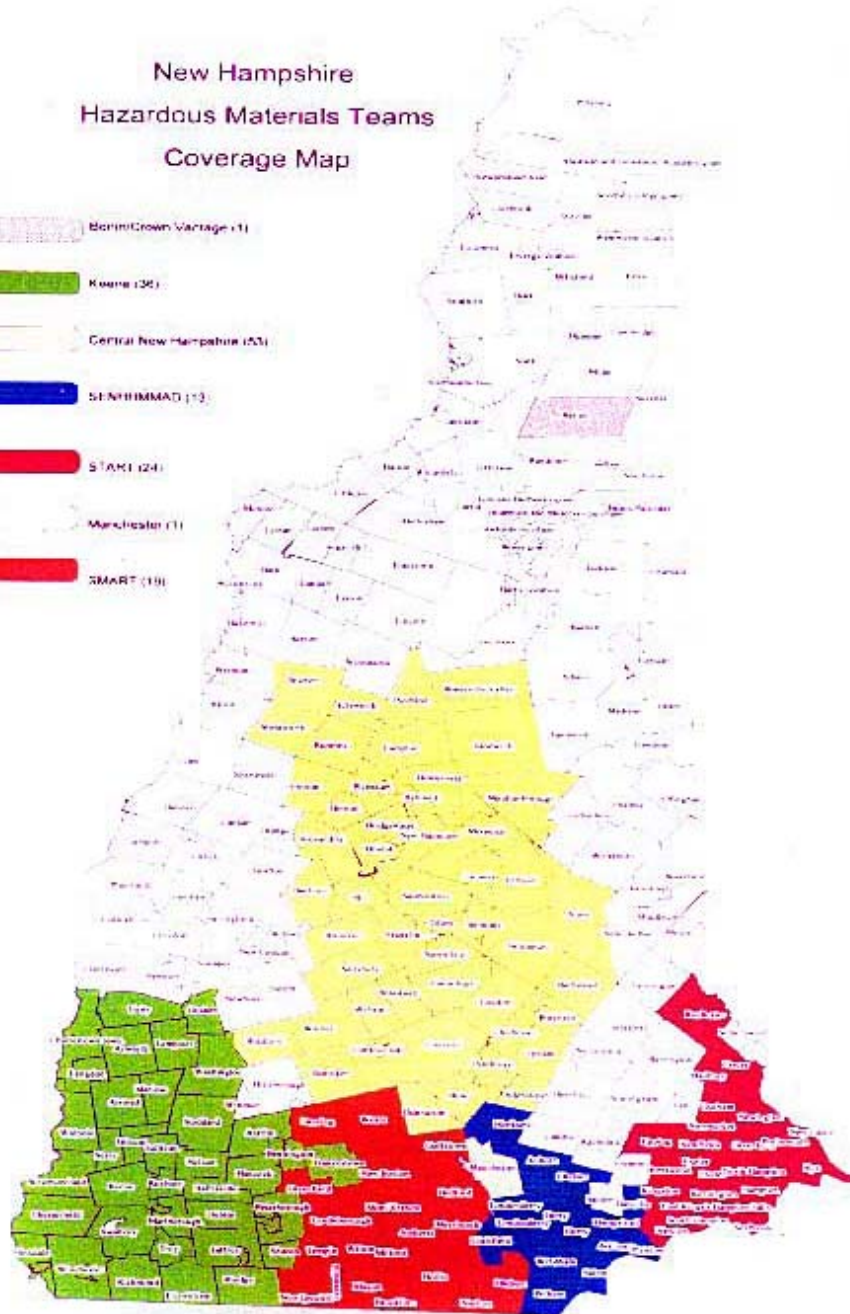
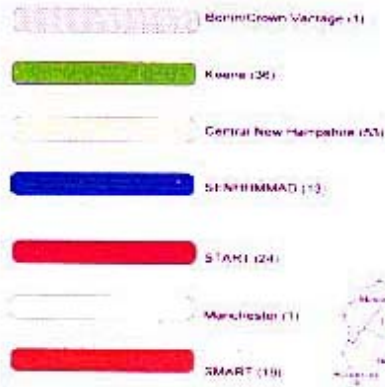
- 1) Enhancing the ability of our first responders to respond to and handle biological and chemical incidents by improving their training and equipment.
- 2) Increasing the capacity of our state's health system to handle mass casualty incidents.
- 3) Improving the communications infrastructure and protocols among state agencies, local emergency responders and health care providers.
- 4) Encouraging communities to form hazardous materials emergency response teams.
- 5) Encouraging communities to strengthen their emergency sheltering and evacuation plans.

- 6) Ensuring that emergency response plans are functional by means of drills and exercises that include participation by top government officials.

The costs associated with these enhancements will be substantial. Since September 11<sup>th</sup>, state agencies and local communities have incurred significant unbudgeted expenditures while responding to potential terrorist incidents. Federal assistance will be needed to defray these costs, as well as future costs.

It is the Commission's recommendation that this group or a similar group of state officials continue working on these issues and develops a plan for the implementation of the recommendations in this report.

## New Hampshire Hazardous Materials Teams Coverage Map



# INCIDENT COMMAND SYSTEM

