

Mid-Atlantic Region Catastrophic-Event Preparedness Workshop Report



ALL HAZARDS CONSORTIUM



Copyright © 2008

By All Hazards Consortium

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher.

Requests for permission to make copies of any part of the work should be mailed to:

Mr. Tom Moran, Executive Director
All Hazards Consortium Program Office
50 Carroll Creek Way, Suite 260
Frederick, MD 21701

Printed in the United States of America.

Contents

- Message from the All Hazards Consortium 2
- Executive Summary..... 3
- Reports by State..... 5
 - Delaware 5
 - District of Columbia 5
 - Maryland..... 6
 - New Jersey..... 7
 - New York 8
 - North Carolina 8
 - Pennsylvania 9
 - Virginia..... 10
 - West Virginia..... 11
- Reports by Topics 12
 - FEMA Region III 12
 - Best Practices..... 12
 - Lessons Learned 12
 - Critical Planning Needs 13
 - Public/Private Sector Opportunities or Challenges 14
 - Communication Opportunities or Challenges 14
- Regional Findings and Recommendations 16
 - Policy 16
 - Governance 16
 - Research and Development..... 16
 - Planning 17
 - Resource Management 18
 - Transportation..... 18
 - Communication..... 18
 - Mass Care 19
 - Special Needs 20

Message from the All Hazards Consortium

The All Hazards Consortium (AHC) is a 501c3 organization guided by state government and comprising public and private sector stakeholders focused on regional homeland security and emergency management collaboration within the Mid-Atlantic region and surrounding states. This is a unique model for regional public/private collaboration. Conceptualized in 2003 by the states of Virginia, Maryland, and the District of Columbia, the AHC was created to provide a framework to engage partners within state and local government, business, and higher education to share information and collaborate on potential regional requirements, studies, projects, and solutions. Member states or jurisdictions include Delaware, District of Columbia, Maryland, New Jersey, New York, North Carolina, Pennsylvania, Virginia, and West Virginia. The consortium also includes federal agencies in support of the states and private sector firms, higher education, and nonprofit organizations.

We are proud to support the fourth workshop of this kind among the states. This one focuses on regional catastrophic-event preparedness. The Consortium believes that improved preparedness and response capabilities depend upon our nation identifying issues and requirements at the local and state levels and planning, in concert with federal efforts, at the regional level. Too often, our systems are designed as a means to solve single local issues. This solution becomes a stovepipe when the problem grows, interfering with our ability to interoperate as a region.

The AHC acknowledges the member states, their local stakeholders, and their supporting federal, private, and academic partners,

who all share a sincere desire to protect residents and communities while working in concert with their respective neighbors. Believing and understanding that “regional catastrophic-event preparedness knows no boundaries,” the AHC proposes that this white paper be used to share the collective voices of the Mid-Atlantic Region charged with the safety and protection of their residents.

Six states or jurisdictions in the Mid-Atlantic region (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia) agreed in principle upon the need to work collectively on regional catastrophic-event preparedness beginning with the establishment of an executive committee to guide regional projects and a working group to develop and deploy them. The agreement was formalized in a draft charter, which represents a vision and a basic operational framework for implementing a coordinated approach in addressing the myriad issues involved in regional catastrophic-event preparedness. The entities have agreed upon a basic approach and definitions, common goals and objectives, assumptions and constraints, and preliminary milestones, and they are in the process of finalizing the charter. Once finalized, this charter shall represent the commitment of the six states, Federal Emergency Management Agency (FEMA) Region III, and the FEMA Office of National Capital Region Coordination (ONCRC) to improve regional catastrophic-event preparedness.

Executive Summary

Since Hurricane Katrina, response entities at all levels of government have been increasingly aware of the need to work together to address catastrophic events that cross jurisdictional boundaries. This white paper summarizes ideas, issues, and recommendations generated from the February 21, 2008 Regional Catastrophic-Event Preparedness Workshop, representing the Mid-Atlantic states or jurisdictions of Delaware (DE), District of Columbia (District), Maryland (MD), New Jersey (NJ), New York (NY), North Carolina (NC), Pennsylvania (PA), Virginia (VA), and West Virginia (WV). It identifies several key requirements for enhancing catastrophic-event planning and preparedness and provides recommendations to help resolve current issues.

The public tends to take preparedness and response systems for granted, believing that emergency communications and responses should and do work seamlessly and instantaneously. Contrary to this popular belief, first-responder communities are struggling to resolve a myriad of communications and planning issues regarding catastrophic-event preparedness. For state and local governments, preparing for and responding to catastrophic events requires collaboration with the federal government as well as neighboring jurisdictions, clearly defined roles and responsibilities, and coordinated inclusive planning. The Mid-Atlantic States' commitment to improved regional preparedness is manifest in their eagerness to discuss their current activities, identify capability gaps, and create a baseline upon which to base future work.

Analysis of the data derived from the workshop revealed a number of common, core themes. Although many issues are being

addressed individually at either a state or local level, a broader perspective reveals an uneven approach to catastrophic-event preparedness in the region. Critical areas requiring additional resources and effort include regional planning for resource and information management, mass care, and transportation; regional risk and vulnerability assessments; behavioral analysis and modeling; communications; and special needs populations.

At the conclusion of the workshop, all the states and the District agreed it is critical to gain a better understanding of what each state or jurisdiction is already doing and to establish a framework for future coordinated regional efforts regarding catastrophic-event preparedness. The states agreed to a formalized working arrangement and created a draft charter that represents a vision and a basic operational framework for implementing a coordinated approach for regional catastrophic-event preparedness.

Furthermore, the states and the District agreed with the following core regional requirements:

1. Behavioral Aspects: Regional planners require more current and focused behavioral studies to develop or modify plans and decisions, and to understand the motivational factors behind public adherence to recommendations and mandates. Better behavior-related information is needed to help formulate expectations that are critical for planning assumptions.
2. Public Preparedness: Regional preparedness partners require a robust public preparedness program that results in an educated public who understand their risks, accept the necessary

- personal preparedness steps, and grasp the actions necessary when an emergency does occur.
3. **Transportation:** Regional planners require a common operating picture with consistent regional evacuation plans; improved awareness and continuity of designated evacuation routes and modes; mapping of transportation-related resources (e.g., refueling locations); and incorporation of regional assumptions into transportation planning efforts.
 4. **Mass Care:** Much time and effort has been devoted to providing services related to mass care. However, additional coordinated planning efforts are needed to improve the regional capability to determine shelter capacity and to provide food, basic first aid, and bulk distribution of personal care items, and to accommodate individuals with special needs or pets.
 5. **Resource Management:** Coordinating the logistics of receiving, managing, and distributing essential commodities, resources (expendables and assets), and donations will be one of the most difficult problems the region will face during the response and early recovery phases of any catastrophic event. Planners require assessments, partnerships, and a common operating framework to accomplish a coordinated approach to resource management.
 6. **Modeling and Simulation:** Planning for events that cross jurisdictional lines requires that accurate and consistent modeling and simulation tools—with like assumptions and perspectives—be utilized across the region. These tools would improve the region's ability to form a common operating picture and support situational awareness across borders.

Reports by State

The following section highlights current and planned efforts by the states and the District with regard to catastrophic-event preparedness and planning. It also identifies some of the challenges, capability gaps, and requirements faced by these jurisdictions. The information was provided by the states and the District during a series of conference calls and during the workshop itself.

Delaware

Mr. David Hake, Principal Planner, Delaware Emergency Management Agency (DEMA), provided a detailed summary of the state's catastrophic-event preparedness activities. Delaware's counties have each created evacuation plans; a comprehensive statewide evacuation plan will be developed in 2010. Planners are developing a statewide emergency disaster contract system with private sector partners that any Delaware county or state agency may use. The state is also developing a statewide resource management and asset tracking system with a logistics and commodity distribution plan to follow in 2010. Delaware, Maryland, and Virginia have a longstanding relationship that includes regional hurricane evacuation planning efforts and joint exercises on the Delmarva Peninsula. A "Community Shelter" strategy, identifying five shelters in each county, was developed in cooperation with the Departments of Health and Social Services; Education; Agriculture; Children, Youth, and Their Families; as well as the Division of Public Health and the Delaware National Guard. It is intended to temporarily house the general population, medical needs/special needs population, unattended minors, and companion animals. State, private, and nonprofit stakeholders formed a special needs committee that meets

regularly to address emergency planning for warning, evacuation, sheltering, and transportation of patients from special needs facilities.

Mr. Hake indicated that Delaware is faced with several challenges that the state needs to address. Delaware recognized the need to identify catastrophic-event planning efforts within the region; there is also a need for a gap analysis to identify common risks and vulnerabilities across the region. In the case of evacuation routes, it is critical that routes in neighboring regions align with those identified by Delaware. The state identified a need to establish pre-scripted vendor contracts for relief supplies prior to a catastrophic event. Delaware reflected that FEMA's gap analysis requests information about internal shelter capacity but does not examine the excess capacity that is needed to host evacuees from other locales. To ensure public adherence to recommendations and mandates, behavioral studies are needed to better understand public response and the motivational factors. Finally, interoperable communications between command and control points across the region are critical for situational awareness and to ensure that a common operating picture is achieved during a catastrophic event.

District of Columbia

Ms. Katie McDonald, Deputy Director for the District of Columbia Homeland Security and Emergency Management Agency (DCHSEMA), provided a thorough overview of the District's efforts. Ms. McDonald indicated that the National Capital Region (NCR), which includes 21 local governments in Maryland, Virginia, and the District of Columbia, began work on an evacuation

plan several years ago and realized that different jurisdictions were in different developmental phases. That effort was revised to a Sheltering and Evacuation Resource Guide. The District's evacuation planning includes an Emergency Transportation Annex with catastrophic-event transportation policies and procedures, a Walk-Out Plan for moving people when Metrorail is unavailable, estimates of evacuation time for evacuation zones, and Fast Forward exercises to validate plans and command and control. AidMatrix® is being considered as a tool to manage donations in future emergencies and disasters. A major community preparedness and education initiative currently underway provides all residents with an evacuation guide containing maps of all shelters and evacuation routes within each of the eight wards. Extensive assessments of schools and recreation centers have been conducted to determine their appropriateness as shelter facilities for humans and pets. Staff has been trained to open and operate family reunification centers. Relationships have been established with advocacy groups for the special needs community to ensure that planning efforts are inclusive.

Ms. McDonald indicated that the District faced several challenges to catastrophic-event planning. The NCR evacuation plan effort demonstrated that individual local jurisdictions need to create evacuation plans that incorporate and support a larger regional effort to achieve a common, complementary plan. Due to limited real estate, the District must rely on its regional partners to provide food, fuel, and other essentials to citizens passing through their jurisdiction or sheltering therein. This may also include long term housing should the disaster be severe enough. Limited internal District personnel resources may require

supplemental staff assistance to be found from external sources. Finally, impediments exist to sharing social service databases and cross-jurisdiction social services.

Maryland

Mr. Jon Ayscue, Mitigation and Recovery Manager, Maryland Emergency Management Agency (MEMA), presented an overview of the state's current and planned catastrophic-event preparedness initiatives and challenges. Maryland is currently engaged in two regional, interstate planning efforts with regard to evacuation or catastrophic-event preparedness: the hurricane planning effort on the Delmarva Peninsula and the NCR Sheltering and Evacuation Resource Guide. The state will participate in National Level Exercise 2-08 in May 2008 and examine mass evacuation and sheltering. Recognizing the need, an Evacuation and Sheltering Steering Committee was created to work at the interface with local governments and the federal government. Maryland incorporated U.S. Army Corps of Engineers hurricane evacuation studies and Sea, Lake, and Overland Surges from Hurricanes (SLOSH) studies into planning efforts that are disseminated via WebEOC®. Shelters in each jurisdiction, along with their capacity and special features have been entered into WebEOC® and shared throughout the state. Widespread use of WebEOC®, throughout the state ensures all jurisdictions can share a common operating picture, FEMA Typed Resources, and sheltering information.

Mr. Ayscue acknowledged that Maryland faced significant challenges if confronted with a catastrophic event. One of the chief concerns is that neighboring jurisdictions do not share a common operating picture. For example, evacuation plans, with designated routes, facilities, commodity points

of distribution, and resources are not coordinated or exercised regularly with neighboring jurisdictions. Another concern is ensuring regional resource and information management. That is, a regularly updated catalogue of resources (including consumables) that can be accessed during a mass evacuation or mass sheltering effort is needed for the state and its neighbors. Mr. Ayscue recognized the need to plan for distribution of federal assets and commodities that will flow into the state during a catastrophic event. The state is concerned with developing and implementing a robust public education program to enable the public to respond in a timely and informed manner during a catastrophic event. The public education program should also identify and address the needs of disadvantaged populations, such as nonnative English speakers or disabled citizens. In addition to public education, there is a need for a training curriculum focused on evacuation decision making and response operations for delivery to local government officials and other key decision makers.

New Jersey

Mr. Joseph Picciano, Deputy Director, New Jersey Office of Homeland Security and Preparedness (NJOHSP), discussed New Jersey's catastrophe preparedness efforts. New Jersey, in association with Rutgers and The State University of New Jersey, has two established, ongoing interstate evacuation planning efforts with New York City and Philadelphia. They incorporate state, local, federal, and private-sector resources into a basic plan and supporting annexes. The state is divided into four regions which, over the next three years, will be engaged in state-wide catastrophe planning, including an expanded gap analysis, updating the existing resource database (private and

public), creating a resource management plan, and expanding contra flow. The state established a catastrophic-event planning cell in their Emergency Operations Center (EOC) and contingency action plans with the private sector. New Jersey partnered with CSX Corporation to develop a Web-based system that provides real-time geographic location information for any CSX train car carrying hazardous materials. They are working with other rail carriers to develop the same capability. In addition, recognizing that reestablishing business following a catastrophic event is important for community restoration, the state initiated research into the interdependencies of business communities and state evacuation planning. The implications of this research led to state policy that prioritizes the need to clear debris and to restore power within three days of a disaster in order to bring industry back into operation to supply food and other critical supplies. New Jersey has also conducted a demographic study of its special needs population, crafted a special needs plan, and released a request for proposals (RFP) to create a special needs registry.

Mr. Picciano observed that many lessons for the state were learned from 9/11. For instance, the federal government will inundate the state with commodities and the key to most effectively using those resources is to develop good logistics and distribution plans. Mr. Picciano indicated that a food distribution plan with industry was needed, and the state is working with the National Food Council to establish plans and procedures that will allow food distribution to be restored within three days of a disaster. New Jersey conducted an exercise with the governor and department of defense to clarify the chain of command in a nuclear scenario. The findings indicate the in all

likelihood, the state would not be able to manage this type of an incident, and additional exercises of this type are needed. Moreover, with the newly released National Response Framework, there is considerable clarification and validation that needs to occur. Because state personnel will be at a premium during a catastrophic incident, New Jersey is concerned about the potential conflict between protecting national critical infrastructure and conducting an evacuation.

New York

Mr. David DeMatteo, Branch Director of State and Local Planning, New York State Emergency Management Office (NYSEMO), provided an overview of the state's catastrophe preparedness and response planning. Mr. DeMatteo indicated that most regional planning revolves around high risk areas such as nuclear plants, international borders (Buffalo/Niagara area), and Long Island and New York City. In the coastal region, the state has worked with the U.S. Army Corps of Engineers on evacuation in response to a hurricane scenario. The state will also begin working on catastrophic-event preparedness with New Jersey and Connecticut in the upcoming year. To assist in moving resources where needed, New York is creating an intrastate compact with its jurisdictions that will operate under the same principles as the Emergency Assistance Compact. New York has created a robust, nationally recognized website, NY Alert, which allows citizens to sign up to receive alerts from any jurisdiction statewide via voice, text, or page. For jurisdictions with close proximity to nuclear power plants, a virtual, Web-based, Joint Information Center (JIC) concept has been implemented where the public information

officers (PIOs) may coordinate emergency releases that the media can access.

With regard to challenges, Mr. DeMatteo mentioned several that face the state. For regional planning efforts, it is important to follow sound planning principles including appropriate scoping, using a credible worst-case scenario, and working inclusively and sequentially across disparate levels of government and economic and population densities. To avoid a disaster within a disaster, receiving jurisdictions need to plan for secondary impacts to their infrastructure such as water and sewer systems, warning capability, and medical care. Once the decision to evacuate is made, the state is very concerned with the need to care for the evacuees, reunite families, and return them to their homes and jobs. There is a need for the ability to collect and process mass fatalities. Finally, although the National Response Framework has been approved and released, greater coordination and education is required, particularly with updated Annexes.

North Carolina

Mr. Mike Sprayberry, Deputy Director, North Carolina Emergency Management (NCEM), provided an extensive overview of the state's catastrophe preparedness efforts. North Carolina has established a slush fund for disasters and preestablished emergency contracts that are cross-walked with FEMA Region IV to ensure there is no overlap, and the state annually coordinates with its neighboring states on their evacuation plans. NCEM has developed a Coastal Region Sheltering and Evacuation Standard Operating Guide (CRES SOG) that addresses evacuation, transportation, sheltering, public information, and functionally and medically fragile populations to ensure a coordinated, orderly evacuation in

the 20 counties most at risk from a hurricane storm surge. The CRES SOG includes a behavioral analysis, evacuation routes, decision matrix, and timelines, and it pairs at-risk counties with host counties that will provide temporary sheltering. A second phase of the CRES SOG, beginning in 2008, will expand its scope to the entire state and create a condensed field operating guide. The state has produced a Highway Patrol hurricane checklist that makes troopers responsible for certain types of contact information, knowledge of specific plans, and locations of resources within their area of responsibility. NCEM conducts an annual resource inventory assessment, including commodities, National Guard teams (e.g., people, equipment, and costs), and other FEMA-typed teams. Additionally, the state created and deploys an annual emergency support function (ESF) 6 Self-Assessment Tool to all its counties and the eastern band of the Cherokee Nation to determine mass care vulnerabilities. The state has established pre-identified sheltering centers at community colleges, and equipped 20 mobile companion animal trailers for rapid dispatch. To take advantage of economies of scale, the state has created a standardized 7-day meal list for all their shelters. A standard operating guide outlining roles and responsibilities was developed for the state's public information officers as well as 35 prescribed hurricane/storm evacuation public information announcements. The state has created a flood inundation mapping and alert network that links flood gauges with notification capability to 911 centers.

Mr. Sprayberry identified various challenges that present themselves regarding catastrophic-event preparedness. NCEM has begun delineating fueling locations but requires additional input from the industry.

North Carolina is concerned with supporting the logistics of rapid deployments of aircraft, buses, or ambulances for evacuation. The primary focus for evacuees has been removing them from harm's way; but to ease the transition to reentry or long-term housing solutions, a better method of tracking evacuees is warranted. To better inform decisions during an evacuation scenario, the state would like to create better links between existing models like SLOSH and the decision matrices in their CRES SOG. Finally, there needs to be better sharing of lessons learned and after action reports (AARs) from disasters and exercises from around the region and country.

Pennsylvania

Ms. Evalyn Fisher, Director of the Bureau of Plans, Pennsylvania Emergency Management Agency (PEMA), provided a synopsis on behalf of Pennsylvania. Due to its size (i.e., 67 counties and ~2700 local jurisdictions), Pennsylvania felt it was not feasible to create a statewide evacuation plan. Therefore, it created a planning guide, the Pennsylvania Evacuation and Planning Implementation Guide, which provides guidance to develop an on-the-fly evacuation plan for an unexpected event, and guidance for deliberate advance notice evacuation planning. The state has coordinated the creation of county and state animal response teams with trailers and equipment. Ms. Fisher indicated that the presence of critical regulated facilities with mandated evacuation plans, such as five nuclear power plants, 783 high hazard dams, and 3171 SARA Title III sites has raised awareness and confidence in the state's ability to accomplish an orderly evacuation. The state is pursuing a regulatory requirement for all facilities that offer dependent care, including day cares,

private schools, and prisons, to have emergency plans. This Commonwealth initiative, Project PREPARE, has created a draft Dependent Care Facility Plan template and associated Guidebook to assist these facilities. Due to a strong commitment to public information, the state is funding and developing a citizen outreach strategy that will include print, radio, brochures, go kits, and Web site media. Pennsylvania has created a special needs workgroup and a Safe Schools emergency plan workgroup to assist the state with addressing these populations' needs.

Ms. Fisher articulated the following concerns for the state: Pennsylvania's proximity to several major high-risk metropolitan areas makes the coordination of public information, resources, host facilities, evacuation routes, and special needs a concern. Sophisticated regional mapping with shared information like planned evacuation routes, shelters, hospitals, fuel locations, and other critical information is desired. Any regional catastrophic-event planning should be done in conjunction or coordination with current urban area evacuation planning. Pennsylvania is unsure of the behavior of its citizens during a catastrophic event and is concerned about the effectiveness of messages, e.g., coordinated protective actions, prescribed messages, and variable message signboards.

Virginia

Mr. Bruce Hopkins, Regional Coordinator for Northern Virginia, Virginia Department of Emergency Management (VDEM), reviewed the Commonwealth's catastrophic-event preparedness efforts. Virginia is currently engaged in two separate regional planning efforts: in the NCR with the District and Maryland, and the Delmarva with Maryland and Delaware. Mr. Hopkins

indicated that three evacuation plans have been developed: Delmarva and Hampton Roads for hurricane (notice) events and Northern Virginia (NOVA) for no-notice events. The Hampton Roads plan incorporates contra flow, traffic modeling, and behavioral analysis. The NOVA plan, developed in coordination with state and local agencies as well as the National Park Service, addresses an evacuation from the District and incorporates lifting high occupancy vehicle restrictions, eliminating tolls, closing inbound lanes, coordinating signals, and a public/private partnership with different bus providers in Northern Virginia. By gubernatorial mandate, fuel suppliers must maintain a 10% reserve. The state conducted a survey that identified state colleges and universities as locations where 45,000 evacuees (10% of anticipated Hampton Roads evacuees who would require temporary shelter) could be housed. In 2007, legislation was initiated allowing (but not requiring) local Emergency Managers to review the plans of nursing homes and other special needs facilities. PIOs in NOVA have created a series of prescribed templates for use in an emergency. Using anticipated hazards, information about where to go, school information, hotlines for more information, open shelters, and open and closed roads or transportation modes can quickly be added to the templates and disseminated.

Mr. Hopkins enumerated a number of challenges that face the Commonwealth. Planning on such a large scale requires patience, time, and commitment to bottom-up planning from all parties involved. Neighboring jurisdictions need a common operating picture consisting of accurate and shared information and expectations about plans, locations of routes and modes of transportation, capacity and locations

of mega-shelters, medical surge capacity, prison surge, airport locations, traffic control points, debris removal, messaging, and rerouting of traffic. Additional coordination is needed with the federal government to ensure staggered releases during a Continuity of Operations (COOP) release. Accessibility to typed resources and evacuation-specific boards through WebEOC® is a priority. Regionally, there is a need to establish a common base layer for geographic data that would include the aforementioned requirements. Communication is needed about planning with special needs individuals as well as public education about evacuation specific terms.

West Virginia

Mr. David Hoge, Deputy Director of the Homeland Security and Safety Administration Agency, West Virginia Department of Military Affairs and Public Safety, provided an overview for West Virginia. Mr. Hoge indicated that while large in the geographic sense, West Virginia does not have the infrastructure to support a massive evacuation and is devising a pass-through strategy. The state has begun a dialogue with FEMA Region V and neighboring states to the west regarding specific host locations (e.g., Cincinnati) and mutual aid arrangements because high-risk jurisdictions to the east will most likely be impacted and unable to assist. The state is investing in mobile message boards to facilitate the movement of people. In 2005, the state established an Urban-to-Rural Task Force (U2R) comprising nine primary state agencies with key evacuation responsibilities (currently on hiatus to allow individual agencies to assess capacities and multistate planning process to catch up). West Virginia partnered with West Virginia University, the AHC, and The

Johns Hopkins University Applied Physics Laboratory (JHU/APL) to research and develop a proof of concept for the CATEVAC tool, which will aid in planning for a catastrophic event, allow decision makers at all levels to visualize the implications of their decisions internally and externally, and serve as a training and exercise device. In addition, the state conducted evacuation seminars in 2006 and 2007 and will host another in 2008 for a range of government agencies and the private sector. The state has created “hot” rest areas so that tourists will have access to the Internet and up-to-date emergency information throughout the state.

Mr. Hoge also identified several challenges that face the state in catastrophic-event preparedness. Planning for this type of event is a time-consuming effort that requires repeated discussion and dialogue about the difference between a “really big” routine disaster and a truly catastrophic incident. There is a critical need, given the lack of infrastructure in the state, to have well coordinated assumptions and plans within the region. Information such as potential numbers of evacuees from hospitals, prisons, and/or nursing homes, locations of shelters, federal COOP procedures, demographics, and points of distribution must be identified and shared. Essential elements of public information need to be shared. Donations management is a serious concern of the state as well.

Reports by Topics

During the Workshop, the eight states and the District gathered to discuss their efforts regarding catastrophic events. In addition to best practices, lessons learned, and a Federal report, the facilitated discussion drove out specific information in three discrete areas: critical planning needs, public/private sector opportunities or challenges, and communication opportunities or challenges.

FEMA Region III

Stakeholders from FEMA Region III States have come to the table to identify their core capabilities and gaps as they relate to All-Hazard scenarios. The creation of a regional executive oversight committee and a regional working group have brought stakeholders together in a unique partnership to work together in support of one another in the event of a natural or man-made disaster. In forming this partnership, these states, along with their respective FEMA partners, have laid the groundwork for collaboration and cooperation in the event of an emergency situation.

Best Practices

The following highlights current or ongoing collective best practices in the states and District.

Planning – There are several well developed regional plans (DETF, Trans Hudson, etc.) that involve high-risk areas. The regional plans demonstrate coordination and collaboration among several states and local jurisdictions.

Resource Management – The states are in various stages of developing in-state resource management and asset tracking systems, forming partnerships with the

private sector to speed response and recovery, and coordinating with the federal government and aid organizations to determine expected aid.

Transportation – States are employing several methods to aid in evacuations, such as co-locating their traffic management centers and EOCs, preestablishing agreements with the private sector (e.g., bus companies), and, in critical areas, working with neighboring states to coordinate evacuation.

Communications – Several states have developed prescribed messages and citizen awareness materials that include maps with pre-identified evacuation routes and shelters.

Mass Care – States have identified in-state shelters and in several cases developed relationships between at-risk and host locations to ensure services will be provided for short-term care.

Lessons Learned

The group discussions identified the following key lessons learned:

Planning – To achieve regionally interoperable plans, it is critical to start with the basics: definitions, routes, shelter locations, and resources. Recognizing that planning for catastrophic events is not a quick process but involves significant investment in time and energy, it is important to identify and engage the appropriate stakeholders (all levels of government and the private sector) during the planning phase. Furthermore, establishing a formalized working group is an effective way to engage in this type of planning.

Resource Management – The states realize that, prior to a disaster, it is very important to develop and share interoperable plans for logistics and distribution.

Transportation – The states indicated that they often do not know if their evacuation routes align with neighboring jurisdictions and what resources will be available along these evacuation routes. They recognized the need to coordinate the evacuation route network to manage and resolve issues before an event.

Communications – The states have recognized the need to provide the public with a regionally consistent and believable message and to educate the public prior to a disaster. They acknowledged that they are unsure of how the public will respond. The states understand that they need to ensure adequate interoperable communications and situational awareness capability along the entire length of evacuation routes, including the receiving area.

Mass Care – The states realize that they are not prepared for long-term mass care or for long-term housing near work; restoration of industry, food, and other critical supplies; or family reunification.

Special Needs – States are aware of the need to address gaps in capabilities for serving the special needs population by employing behavioral studies and expanding relationships with advocacy groups to develop solutions.

Critical Planning Needs

Discussion focused on the wide range of information required to plan for and respond to a catastrophic event. The group agreed that a coordinated regional preparedness approach would support increased regional capabilities and safer evacuations. During the discussion, the following gaps

and critical planning needs were identified by the states and the District:

- Establishing a formalized work structure and governance framework that is key to engaging the region in catastrophic-event preparedness; establishing who is in charge during a catastrophic event may prove to be a large concern
- Sharing and evaluating information (common operating picture) from different jurisdictions regarding modes of transportation and routes that are planned; locations of various significant facilities such as medical care facilities, shelters, fuel supplies, etc; and intentions for contra flow
- Facilitating maximum coordination between the federal government and the region to ensure understanding regarding the commodities and resources, points of distribution, and means of transport that FEMA will bring following a disaster
- Sharing knowledge of existing resources, assets, commodities, and memorandums of understanding (MOUs) within the Region (e.g., local, state, federal, private sector, nongovernment) as well as how and where they may be accessed
- Coordinating among responsible agencies to adopt a common base layer for sharing geographic data
- Prioritizing personnel who will be essential to the dual, potentially conflicting responsibilities of protecting infrastructure and conducting an evacuation
- Ensuring adequate personnel for transport to accomplish an evacuation

- Understanding the motivations and messages needed to accomplish an evacuation or stay-in-place order
- Identifying locations of people who will need transportation assistance, including individuals with special needs and companion animals
- Understanding the number of people who may need temporary or long-term sheltering
- Utilizing lessons learned from prior catastrophic events and exercises
- Tracking evacuees during evacuation to allow a smoother reentry or transition to a long term housing solution
- Using the university system as a think tank to identify best practices before a disaster
- Partnering with private bus companies while maintaining their ability to conduct business
- Partnering with the private sector to help monitor and mitigate potential threats or hazards
- Linking to business resources through Business Executives for National Security (BENS)

Public/Private Sector Opportunities or Challenges

Discussion centered on how the emergency management community must manage response and recovery from a disaster, yet emergency managers often have limited awareness of the resources and capabilities available from the private sector. The group agreed that implementing an overall, coordinated preparedness approach to securing and using private sector resources would increase regional capability. The following highlights private sector opportunities or challenges presented by the states and the District:

- Developing prescribed contracts that have been shared statewide so multiple agencies or counties can all use them
- Increasing private sector partnership activities before a disaster to better identify resources that may be available and utilized after a disaster
- Developing the capability to establish a common operating picture with evacuation-specific boards for emergency management tools (such as WebEOC®, Incident Master™, and E Team, etc.) that would include assets, locations, etc.
- Developing a redundant, interoperable information-sharing environment within the region that links existing and future emergency management tools
- Teaching/preparing the public year-round to know what to do before an evacuation, which may require conducting regional behavioral studies to determine the best mechanism and funding to develop effective citizen outreach strategies in print, radio, brochures, and Web sites

Communication Opportunities or Challenges

The group identified the need for predisaster planning that includes situational awareness, behavioral studies, and public education. The states and the District identified the following communication challenges:

- Providing a unified, credible voice of authority during a regional disaster
- Developing prescribed messages for public information officers using common scenarios and terminology
- Communicating with special needs populations (to include the disabled and non-English speaking communities)
- Reaching transient populations, including the tourism industry
- Developing new methods of communication (text messaging, e-mail, etc.) to reach a younger and highly connected audience

Regional Findings and Recommendations

The following findings and recommendations are the result of review and analysis of the information workshop participants provided. They serve a threefold purpose: 1) to increase regional coordination between states regarding catastrophic-event preparedness, 2) to identify regional gaps in catastrophic-event preparedness, and 3) to support significant resource savings across the region.

Policy

Finding 1: During a catastrophic-event evacuation, transportation personnel will be tasked to move evacuees to safety, which generally will require the personnel to work for longer hours than allowed by established regulations.

Recommendation 1: Review state laws to determine whether there is a need to create waivers to operating policies in emergency situations (e.g., driver hours, school buses being driven by available qualified personnel, etc.).

Finding 2: Many plans and policies in the Region stipulate that law enforcement personnel are responsible for increased protective measures around critical infrastructure during a heightened state of alert, including during a catastrophic event. These same personnel are essential for coordinating security and evacuation during a catastrophic event.

Recommendation 2: Review existing plans and procedures and eliminate conflicts over the commitment of state and local law enforcement personnel. Identify potential federal and private resources to monitor and protect critical infrastructures during catastrophic events.

Governance

Finding 3: The Mid-Atlantic States agreed that it is critical to have a common operating picture to gain a better understanding of what each other are already doing and to establish a method for future coordinated regional efforts regarding catastrophic-event preparedness. The states agreed to a formalized working arrangement. They created a draft charter that represents a vision and a basic operational framework for implementing a coordinated approach for regional catastrophic-event preparedness. The parties have established a working group and an executive oversight committee; agreed upon a basic project description, common goals and objectives, assumptions and constraints, and preliminary milestones; and are in the process of finalizing the charter.

Recommendation 3a: Ratify the charter and commit to ongoing activities that further the Region's catastrophic-event preparedness.

Recommendation 3b: Cultivate additional partnerships with entities to include counties and municipalities, academia, non-profit or nongovernmental entities, and the private sector. Ensure their resources and capabilities are incorporated into the planning process.

Research and Development

Finding 4: Existing tools and technologies are limited in their ability to effectively model or simulate a mass evacuation event. This is critical to support decision-making across a large geographical area crossing multiple jurisdictional boundaries.

Recommendation 4: Further develop and deploy regional evacuation-specific, interoperable tools that enhance the common operating picture and facilitate planning, training, exercising, and ultimately response for a catastrophic event.

Finding 5: Evacuation planning and preparedness have not focused on the ingress of large numbers of people and their impact upon the resources and capabilities of potential host communities.

Recommendation 5a: Consider further human behavior studies relevant to mass ingress to help depict and quantify population behavior and expectations so they can be modeled effectively, and the models may be used to enhance planning, training and decision-making.

Recommendation 5b: Evaluate current evacuation routes and current plans to better understand the implications to host communities. Use this information to enhance modeling and simulation technologies that will ultimately support overall improved regional coordination, response, reception and resource management.

Finding 6: Although many states reported having conducted behavioral analyses or having heard of other studies that had been done, the consensus was that decision-makers in the region need better data to anticipate the public's response to messaging and specific government requests such as evacuation orders or stay-in-place orders during local disasters and regional catastrophic events.

Recommendation 6: Survey existing behavioral studies in the region; search for best practices from around the country. Determine their applicability across this region and, if warranted, conduct a region-wide behavioral study.

Finding 7: The states observed that they have individually conducted hazard vulnerability assessments (HVA) as part of past preparedness efforts. However, they believe the identified hazards have not been assessed regionally to develop a collective understanding of their common risks.

Recommendation 7: Survey existing HVAs to determine shared hazards and vulnerabilities or identify gaps therein. Determine if existing HVAs are sufficient. Compare to the 15 National Planning Scenarios, and conduct a regionwide HVA if necessary.

Planning

Finding 8: Existing planning efforts are hampered by a lack of thorough understanding and two-way communication regarding current local, regional, state, and federal plans, procedures, and resources. Gaps, incorrect assumptions, and resource conflicts will have significant implications during a regional catastrophic event.

Recommendation 8a: Survey existing plans, policies, procedures, and resources across the region to identify where links already exist, gaps in plans or resources occur, and incorrect assumptions persist.

Recommendation 8b: Establish a template that includes standardized sections and common terminology and definitions for catastrophic-event planning, which will ensure the plans at all levels of government are not in conflict and are interoperable.

Recommendation 8c: Review existing MOUs in the region to include local, state, federal (e.g., FEMA Regions 2, 3, and 4 plus adjacent regions), Urban Area Security Initiatives (UASIs), private sector, and non-governmental entities. Remove potential conflicts.

Finding 9: Much planning for catastrophic events revolves around knowing with great specificity the geographical location of critical resources and key routes. The states recognize there is no single, common standard amongst them for sharing this type of geographic data.

Recommendation 9: Establish a regionally agreed-upon base layer—or primary layer for spatial reference—upon which other layers are built. Examples of a base layer are property parcels or street centerlines. This will facilitate the exchange of geographic data and help develop a regional common operating picture.

Resource Management

Finding 10: The states acknowledged that coordinating the logistics of receiving, managing, and distributing essential commodities, resources (expendables and assets), and donations will be one of the most difficult problems they will face during the response and early recovery phases of any regional catastrophic event.

Recommendation 10a: Develop a regional interoperable resource management database to track and share information in real time regarding assets, consumable and nonconsumable commodities, and donations.

Recommendation 10b: Encourage full federal participation in planning efforts to include sharing such information as pre-identified points of distribution, standard operating procedures for delivering and managing commodities, and lists and quantities of pre-identified commodities that the Region should expect to receive.

Recommendation 10c: Develop Regional transportation and distribution protocols for resources, commodities, and donations. Consider collaborative opportunities with

the private sector partners with specific expertise in just-in-time distribution (e.g. ordering, tracking, moving, and receiving goods).

Transportation

Finding 11: Knowledge of planned interstate evacuation routes and modes of transport is inconsistent across the states and nonexistent in some.

Recommendation 11a: Create a common regional map that identifies existing planned evacuation routes and modes of transport across the region. In addition, regionally agreed-upon key resources that are essential for a successful evacuation should be delineated such as shelters, points of distribution, fuel, medical facilities, etc.

Recommendation 11b: Develop and deploy evacuation-specific, interoperable tools that enhance the common operating picture and facilitate planning, training, and exercising for a catastrophic event.

Recommendation 11c: Devise a regionally consistent checklist for evacuation implementers. It should outline pertinent contact information, evacuation plans and routes, communications plans, areas of responsibility, and changes from preceding years.

Recommendation 11d: Establish a regional network of rest stops to share key information like evacuation routes and key facilities in multiple media (print and electronic) for tourists and travelers.

Communication

Finding 12: Internal communications (e.g., government to government, partner to partner) during a catastrophic event are critical for life safety in the region. Currently, states, localities, and the federal government

are using incompatible emergency management systems that have limited or no interoperability. This greatly hinders the ability to create a common operating picture during a disaster.

Recommendation 12: Develop a redundant, interoperable information-sharing environment within the region that links existing and future emergency management tools like WebEOC®, Incident Master™, and E Team.

Finding 13: Individual states have been working to ensure that consistent messages are received by the general public and the media during a crisis, but there is a need for a more coordinated effort regionally.

Recommendation 13a: Create preidentified, prescribed regional messages, corresponding to identified regional hazards, that can be quickly edited and disseminated across the region.

Recommendation 13b: Preidentify regional media venues including radio, television, newsprint, and Internet media and procedures for disseminating messages region-wide. Coordinate with media partners preincident to develop relationships, create joint messages, and participate in exercises.

Recommendation 13c: Create a regional communication portal with a push/pull capability where citizens/residents either access current information regarding an incident or sign up for geographically specific electronic notification regarding an incident.

Finding 14: Although there is widespread support for public education initiatives that motivate the general public to engage in preparedness activities and adhere to recommendations and mandates during a catastrophic event, efforts across the region are at best uneven.

Recommendation 14a: Develop a multi-media regional citizen outreach strategy including at a minimum print, radio, brochures, go kits, Web sites, etc., which could be adapted easily to specific localities and communicated continually.

Recommendation 14b: Build an emergency management curriculum focused on prevention, preparedness, response, recovery, and mitigation for deployment in school systems across the region.

Recommendation 14c: Create and deploy a validated, standards-based training program focused on evacuation decision-making and response operations for delivery to decision-makers with a stake in evacuations including government, private sector, nonprofit, etc.

Mass Care

Finding 15: Much time and effort has been devoted to providing mass care-related services (immediate shelter, food, basic first aid, bulk distribution of personal care items, determining decontamination needs, etc.), but these resource-consuming efforts in the region have been undertaken largely by individual entities in an uncoordinated fashion.

Recommendation 15a: Establish an agreed-upon minimum number of refugees that the region should be prepared to shelter.

Recommendation 15b: Pre-identify and share geographic locations, routes and capacities of shelters, reception centers, and comfort stations; include capabilities for special needs, medical care, and companion animal care.

Recommendation 15c: Establish agreements with private sector partners such as hotels, apartments, and corporate housing

agencies within the region to develop a long-term sheltering solution.

Recommendation 15d: Identify and share geographic locations, routes, and capacities of hospitals and other medical resources.

Recommendation 15e: Design and deploy a tracking mechanism for evacuees, in particular those in temporary housing, to ease the transition to long term housing or facilitate reentry.

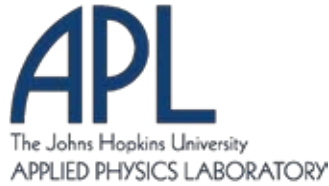
Special Needs

Finding 16: The group highlighted the difficulties that the special needs populations present during a catastrophic event. Individual efforts in planning for special

needs varied widely. Additional understanding is critical to providing timely and effective response during a catastrophic event.

Recommendation 16a: Conduct behavioral studies to determine the most effective way to communicate with and assist various special needs groups, including individuals needing medical attention or personal care beyond basic first aid due to physical or mental impairment, non-English speaking communities, hearing and sight impaired, elderly, and pet care/handling.

Recommendation 16b: Develop an inclusive and widely accepted definition of special needs for use throughout the region.



Special thanks to The U.S. Department of Homeland Security and The Johns Hopkins University Applied Physics Laboratory, who provided resources and support for the preparation of the workshop and the development of this White Paper. Thanks also to our other workshop sponsors and All Hazards Consortium Partners:

Workshop Sponsors:

All Hazards Forum
 FlyteComm
 Motorola
 Safe Surgery Systems Ltd.
 Thermo-Fisher Scientific



All Hazards Consortium Partners:

FOUNDER LEVEL CORPORATE PARTNERS

Motorola
 TerreStar
 Sprint
 Verizon Business
 Verizon Wireless
 CISCO
 M/A-Com
 IBM

PATRIOT LEVEL CORPORATE PARTNERS

Lucent Technologies
 Smart & Associates
 CSC
 Delcan Corporation
 ITIS Holdings
 CA, Inc.
 Allstate
 Northrop Grumman
 CoreStreet
 SES Americom
 Intelsat General Corporation

We would also like to thank the following State Representatives who provided their time as subject matter experts and panelists:

Delaware: Mr. David Hake, Principal Planner, Delaware Emergency Management Agency

District of Columbia: Ms. Katie McDonald, Deputy Director, District of Columbia Homeland Security and Emergency Management Agency

Maryland: Mr. Jon Ayscue, Mitigation and Recovery Manager, Maryland Emergency Management Agency

New Jersey: Mr. Joseph Picciano, Deputy Director, New Jersey Office of Homeland Security and Preparedness

New York: Mr. David DeMatteo, Branch Director for State and Local Planning, New York State Emergency Management Office

North Carolina: Mr. Mike Sprayberry, Deputy Director, North Carolina Emergency Management

Pennsylvania: Ms. Evalyn Fisher, Director, Bureau of Plans for the Pennsylvania Emergency Management Agency

Virginia: Mr. Bruce Hopkins, Regional Coordinator for Northern Virginia, Virginia Department of Emergency Management

West Virginia: Mr. David Hoge, Deputy Director Homeland Security and Safety Administration Agency, West Virginia Department of Military Affairs and Public Safety (WVDMAPS)

The workshop was well attended, with representation from academia and nonprofit organizations; government entities including federal, state, and local partners; and the private sector.

Regional Catastrophic-Event Preparedness Workshop Participants
N = 130

