

SUMMARY REPORT

THE REGIONAL CATASTROPHIC GRANT PROGRAM

MID-ATLANTIC REGION

FINAL REPORT
DECEMBER 2014



TABLE OF CONTENTS

What We Learned.....	2
Executive Summary.....	3
What We Produced.....	6
How We Worked & Adapted.....	12
What We Think Our Experience Means.....	15
How We Can Sustain & Build.....	16
Epilogue.....	18
Acknowledgements.....	20

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I. WHAT WE LEARNED:

Most of us have not personally experienced a real “worst case.” But while working on the Regional Catastrophic Preparedness Grant Program (RCPGP) we have seen – at a comfortable distance – what could happen in the mid-Atlantic. SANDY gave us a small window of what the horrific consequences experienced in Haiti, Japan, Thailand, Philippines, Chile, United Kingdom, Danube River Basin and elsewhere could be like in a regional sphere. These consequences and their implications seriously challenged us to create better catastrophic response locally.

When Superstorm SANDY hit in 2012, some of us had the uneasy experience of getting closer to the edge of catastrophe than we would prefer, even though we recognized that SANDY was far from a worst case.

Working together, we have learned that true catastrophes are possible, usually have large multijurisdictional footprints, easily exceed public sector response capacity, and require much more serious intergovernmental and private-public preparedness – including mitigation – than is otherwise typical.

SUMMARY OF CATASTROPHIC PLANNING PRINCIPLES

- ▶ True catastrophes are possible, usually have large multijurisdictional footprints, and easily exceed public sector response capacity
- ▶ Catastrophic is a whole different category of reality
- ▶ Preparedness is less about having a plan and much more about sustained planning
- ▶ Planning is less about what can be reduced to paper and much more about developing trusted relationships
- ▶ Trusted relationships are essential preconditions for creative and committed problem solving in the midst of what is so innately unpredictable
- ▶ Regional is hard and multi-state regions are even harder (but absolutely worth the effort)
- ▶ Preparedness – especially when it must involve multiple private and public sectors – is as difficult to sustain as it is crucial to ensure
- ▶ Much more serious intergovernmental and private-public preparedness – including mitigation – than is otherwise typical is required
- ▶ Trust is built upon humility, mutual respect and agreement that nobody has the total perspective or all the answers. Humility is a practical virtue. So is persistence!

II. EXECUTIVE SUMMARY

A catastrophic incident, by its nature, is a multi-state event and exceeds the capacity of the public sector to respond on its own.

The National Capital Region Regional Catastrophic Preparedness Grant Program (RCPGP) process and projects demonstrated how a regional community concept can be employed to assist a multi-state region in being better prepared for the impact of a catastrophic incident. The concept is driven by annual catastrophic exercises with the private sector and the alignment of federal, state, and local planning efforts. The empowerment of private lifeline sectors to lead and direct the working group process allows the owner-operators to steer the development of operational solutions that expedite recovery.

This Report Summary outlines the Strategy, Approach, Projects, Results and Sustainment recommendations going forward.

1. STRATEGY

The initial strategy was to build and sustain a common regional (multi-state) planning architecture that could integrate federal, state, and local planning processes in the face of a catastrophic event.

In the absence of “regional” plans that covered multiple states and multiple Federal Emergency Management Agency (FEMA) regions, all of the government stakeholders agreed that a “regional” framework was needed in order to begin coordinating the plans and response activities with FEMA and state and local governments. The private sector planning process would be integrated at a later date.

Lastly, the planning architecture also needed to anticipate stakeholder turnover brought about by elections and retirements. This proved wise, as most of the state participants turned over at least twice during the program’s lifespan, yet the framework survived.

2. APPROACH

The initial approach was to develop and sustain a multi-state, regional governance structure where each state had an equal voice/vote, a lead role on some of the projects, and an advisory role in all projects. In the end, a framework was implemented that included centralized governance and program management with decentralized project(s) run by the states and their contractor(s).

Additionally, the private sector successfully engaged in a creative way, meeting the federal grant guidelines for matching funds from states (25% of grant dollars), which was a major obstacle for every state and urban area across the nation who participated in the RCPGP program. Lastly, the National Capital Region (NCR) Urban Area Security Initiative (UASI) was expanded to include West Virginia, Pennsylvania, and Delaware as part of this effort. The District of Columbia served as the fiduciary agent for the NCR RCPGP grant.

3. PROJECTS

There were twenty-six (26) regional projects conducted across six (6) states in the areas of: Community Preparedness, Transportation, Mass Care/Supply Chain, Resource Management and Communications. Centralized program management and state coordination was performed by a mutually agreed to regional 501c3 public/private partnership organization which proved to be a successful strategy by creating a trusted, neutral planning framework that could quickly interface with multiple states and the private sector. This collection of projects seemed to suggest a shared set of successful principles for catastrophe preparedness.

4. RESULTS

The overall strategic objectives of the program were accomplished. The results varied on a project by project basis.

Regional Integrated Planning Architecture

The states did create a Regional Integrated Planning Architecture and Governance Structure. It started out as only government, but ended up with the private lifeline sectors being integrated. Two regional working groups were formed: a public and private sector group.

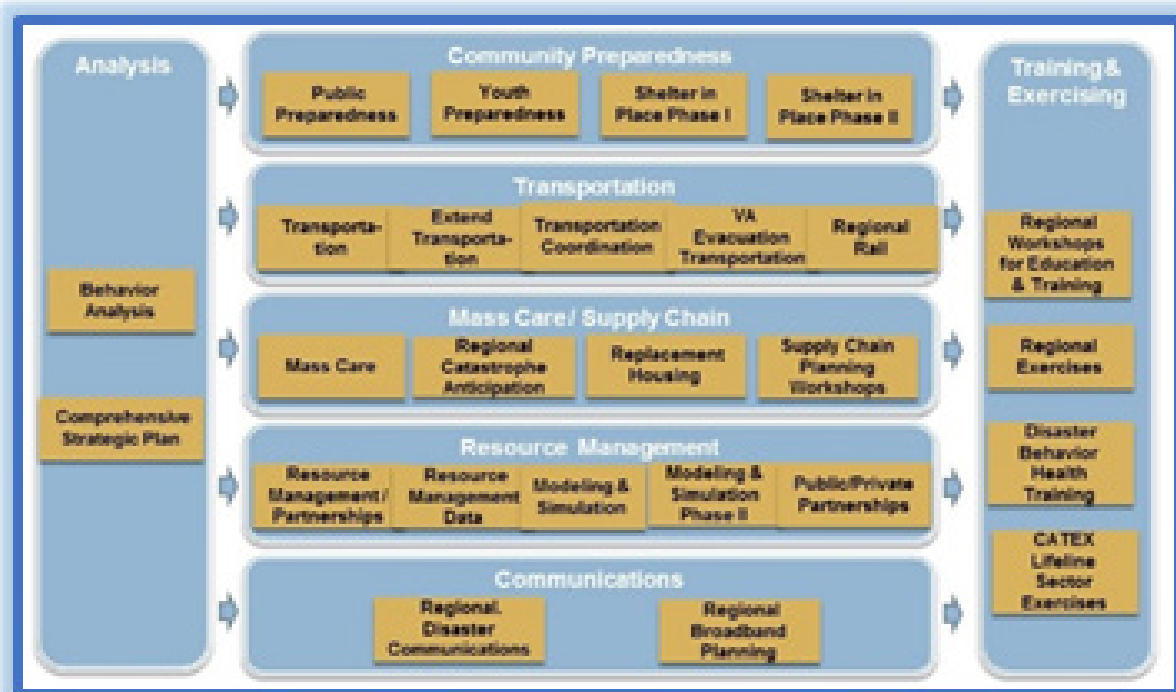
Operational Plans and Solutions

The 20+ projects produced many results. Key results were achieved in the following areas:

1. Public Safety Communications: FirstNet
2. Shelter In Place Training
3. Supply Chain Resiliency
4. Regional Disaster/Catastrophic Planning Process & Exercises w/Private Sector
5. Regional Secure Information Sharing Program

Specific efforts helped expedite power restoration, supply chain movements, information sharing and public safety communications, operational alignment and coordination across multiple FEMA regions, and multiple state and local agencies in emergency management, law enforcement, transportation, health, public utilities, and regulators.

In the end, the NCR's RCPGP results operationalized FEMA's [Whole of Community concept](#) along with the national Department of Homeland Security (DHS) Infrastructure Protection Plan, particularly in the areas of the use and support of public/private partnerships and engagement of the private sector owners and operators of the critical infrastructure.



5. LESSONS LEARNED

What did this multi-year planning program teach? Many findings surfaced from this process.

Most notably, it was discovered that from the regional perspective, sustained planning is more important than simply building plans. Sustainment of the regional planning process is difficult yet essential. Through ongoing planning sessions, public and private participants met, built trust and produced plans, processes, and/or products that solved specific needs.

6. SUSTAINMENT

The strategy for sustainment was successfully implemented, in part. While the private sector, defined as the owners and operators of the critical infrastructure, has owned and adopted several parts of the process, there still remain several areas for government to sustain.

While clear roles and responsibilities emerged for government and the private sector, lessons learned also must be adhered to for sustainment.

Government needs to own the planning process and exercise process that integrates the private sector into it. The private sector can support and participate in the planning process, and advise the government on specific operation issues related to critical infrastructure and economic resiliency.

The private sector owns the education and solution development process. The states serve as advisors to the process and both parties work towards better educating each other and the public on specific issues and developing operational solutions.

7. RECOMMENDATIONS

Long-term sustainment for the developed capabilities will require the following:

1. **Doctrine:** Alignment of FEMA Federal doctrine to support integrated planning
2. **Policy Implementation:** Increased support for the DHS NIPP (National Infrastructure Protection Plan) Call to Actions for Public Private Partnerships
3. **Planning:** Sustained integrated planning at the regional level with the private sector
4. **Public Private Partnerships:** Leveraging of qualified regional public private partnerships to serve
5. **Funding:** Resources are needed at the regional level that encourage state and local participation, public/private partnership facilitation, and FEMA support in order to sustain private sector involvement

III. WHAT WE PRODUCED

This decentralized, collaborative, and action-oriented approach was not always effective. Despite a variety of creative interventions, a few of the anticipated projects were overcome by jurisdictional limitations. Some failed to lean into the special demands of catastrophic risk. The 25 percent match requirement was a common challenge. But over time a critical mass of mid-Atlantic projects began to demonstrate remarkable strategic coherence. Details on all of the mid-Atlantic projects/outcomes are provided in a companion report, Regional Catastrophic Preparedness Grant Program Summary Report - January 31st, 2015, but several success stories can outline a common regional planning approach that brought multiple states together to work with each other and, in some cases, with the private sector.

Out of the 26 regional projects undertaken by the states, several produced significant results in areas that are worth highlighting:

1. PUBLIC SAFETY COMMUNICATION: THE MID-ATLANTIC CONSORTIUM FOR INTEROPERABLE NATIONWIDE ADVANCED COMMUNICATIONS (MACINAC) INITIATIVE:

When power fails, loss of communication too often follows, seriously amplifying consequences across the impacted area. In 2011, the states of Delaware, Maryland, and West Virginia and the Commonwealths of Pennsylvania and Virginia established the Mid-Atlantic Consortium for Interoperable Advanced Communications (MACINAC), a regional multi-state initiative to assist the First Responder Network Authority (FirstNet) in planning, building, and operating the Nationwide Public Safety Broadband Network (NPSBN) in the mid-Atlantic region. Visit Website: <http://www.macinac.org/>



2. SHELTER-IN-PLACE TRAINING:

The general public has been familiarized with evacuation. This is often the unexamined default for many risk environments, but in many situations an attempt to evacuate can increase risk. This is especially the case for no-notice or short-notice catastrophic events. The training project used a grassroots approach to engage people and businesses in their own emergency preparedness and assist them with tools to build shelter in place plans. Visit Website: <http://www.preparedness360.org/>



3. SUPPLY CHAIN RESILIENCY:

To mitigate catastrophic consequences, it is important that key supply chains – such as those for water/wastewater, food, pharmaceuticals, medical goods, and fuel – continue to operate even in the absence of electricity and telecommunications. This is almost entirely a private sector capacity. The Supply Chain Resilience project identified the key private enterprises involved in supplying key resources to the mid-Atlantic, initiated discussions among these private parties, and eventually introduced private and public decision-makers through a series of workshops and exercises. Partly as a result of these activities, several private sector participants have enhanced their own resilience and response capabilities, and changes have been made in public sector plans. The FEMA Logistics policy and strategy is being reconceived. FEMA is developing a national Technical Assistance package to translate the mid-Atlantic RCPGP lessons learned to other regions. Download Report: http://www.catastrophepreparation.net/StrategicPlaybook_v3.pdf



4. REGIONAL INTEGRATED PLANNING & GOVERNANCE FRAMEWORK

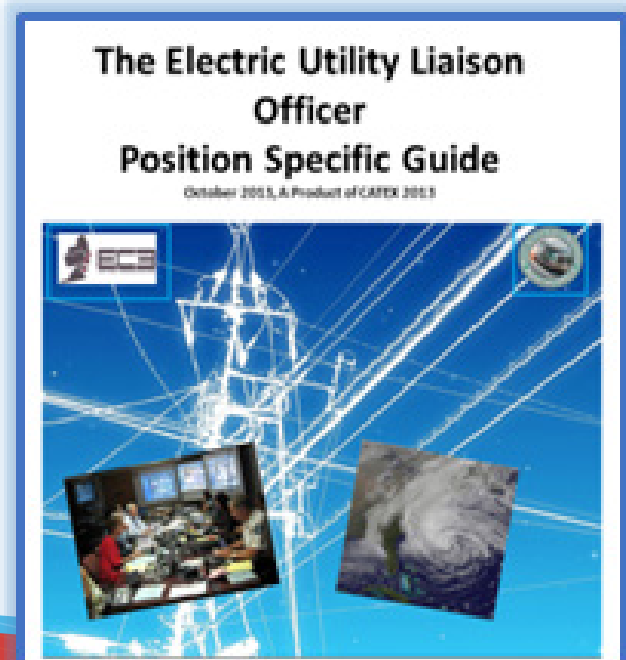
The [Regional Integrated Planning & Governance Framework](#) created a legal and operational public/private planning architecture designed to resolve operational issues facing multiple states and regulated utilities in the electric sector during disasters. The framework currently supports two regional working groups and an annual regional “corridor” exercise focused on expediting power restoration:

- The public sector’s East Coast Corridor Coalition (EC3) work group comprised of operations professionals in public sector states and urban areas
- The private sector’s [Multi-State Fleet Response](#) work group comprised of operations professionals in private sector “life line” sectors



5. AN ENERGY UTILITY LIAISON OFFICE POSITION SPECIFIC GUIDE (EULO)

To help states work more effectively with electric sector liaisons in their EOCs. Developed by several states and electric companies, this guide now serves as a planning and education tool which enhances communications and efficiencies within state or local government emergency operation centers. Visit website: <http://www.fleetresponsemember.org/wp-content/uploads/2014/08/ELO-GUIDE-v2.pdf>



6. CATEX ANNUAL EXERCISE:

Both public and private participants agree the one practical definition of catastrophe is a long-term loss of electric power or supply chain disruption regardless of cause. The annual [Catastrophic Exercise \(CATEX\)](#) is a jointly planned series of workshops, tabletop exercises, and email based functional drills that create and test operational solutions to enhance response and recovery efforts to large scale power outages and supply chain disruptions. CATEX engages operational professionals in the electric, fuel, and food sectors along with states, cities, and FEMA regions II and III in year-round planning with a focus on identifying and addressing operational issues along the i95 corridor. Visit website: <http://www.fleetresponse.org/productsservices/annual-exercise/>



7. A REGIONAL “FLEET MOVEMENT COORDINATION PROCESS”

To expedite the power restoration process within the region by expediting the movement of utility fleets across state lines and the Canadian border. This process was later operationalized and used during the snow and ice storms in early 2014 and is now being adopted in the private sector across the East Coast. Initially developed under the CATEX 2013 exercise planning efforts, this new process was designed... to expedite the power restoration...etc. Visit website: <http://www.fleetresponse.org/about-us/fleet-initiatives/fleet-movement/>



8. REGIONAL TRANSPORTATION PLANNING FOR EVACUATIONS

Citizen evacuation during a disaster is always an important concern. Several projects were conducted under this topic that focused on the development of a framework to coordinate regional evacuation transportation plans across a six state region. Through a series of efforts including research, workshops, and analysis of many plans, a Regional Transportation Evacuation Planning Report was produced in February 2011 that detailed the current status of evacuation plans; identified foundational planning elements needed in every plan; catalogued gaps in existing plans; and identified the key planning agencies and personnel.

This project produced significant results in Maryland, Pennsylvania, Delaware, Virginia, and West Virginia by helping to better coordinate evacuation plans for roadways that included critical regional facilities like nuclear power plants and other key transportation assets in Northern Virginia and Maryland. Additionally, the project helped to improve regional situational awareness from the rail sector by incorporating an existing operational tool (RITIS) currently used within the National Capital Region for transportation management.



9. REGIONAL SECURE INFORMATION SHARING PROGRAM

Sharing sensitive operational information between private and public sectors is important when resolving large scale power outages and supply chain disruptions. Sharing this type of information is risky and requires a “trust framework” that is proven to be reliable, secure, and trusted by the users. The [Regional Secure Information Sharing Program](#), originally developed as part of this grant, leverages a proven, stable process to share sensitive operational information with private sector and multiple states in support of disaster response communications. Visit website: www.fleetcyberid.org.



10. REAL WORLD OPERATIONAL IMPACT

Real world, operational impacts were felt by both public and private sectors as part of this RCPGP efforts in the NCR UASI. More was produced than just projects, working groups, training, and plans.

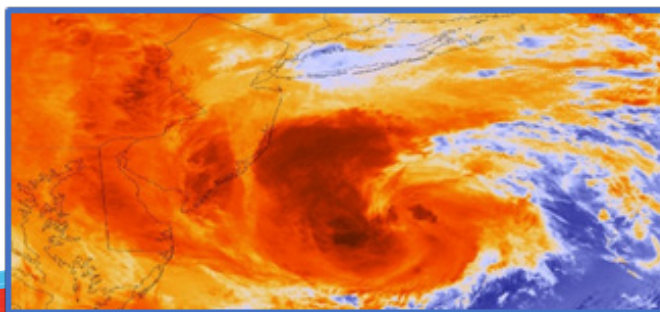
In addition to the physical functional impacts, something more powerful occurred. Relationships and trust developed between operations professionals in the public and private sectors, which led to operational benefits as outlined below.

- Trained 100+ public and private sector organizations in the mid-Atlantic region on how to [shelter in place](#) during certain types of disasters.
- Organized and sustained multiple states in support of the FirstNet initiative via operating regional working group called [MACINAC](#).
- Reduced delays for utility vehicles at [US/Canadian border](#) from two hours to 20 seconds per truck.
- Reduced toll station delays for utility vehicles in Northeast via an [expedited toll station](#) process
- Improved efficiency and functionality of private sector liaison in state Emergency Operation Centers (EOCs) via an [Electric Utility Liaison Position Specific Guide](#) to help private sector liaisons function in state EOCs.
- Expedited power restoration by implementing a [national fleet movement process that coordinates with states](#) across broad geographic footprints (10+ states).
- Launched [secure information sharing pilot and portal](#) that will provide private sector their own trusted platform to share sensitive operational information with specific state and local government individuals.
- Produced [operational tools website](#) that allows open access at no cost to a number of functional, operational products that can be used by any sector across United States.
- Produced a variety of [educational webinars and training products](#) to help public and private sector understand both sides of an operational issue.
- Attracted FEMA, United States Department of Transportation (USDOT), and United States Department of Education (USDOE) support to develop educational and operational support for the ongoing regional fleet movement process with states/cities.

11. SANDY CASE STUDY:

Most importantly, no regional plans or efforts could have prepared the region and Super Storm SANDY in 2012. Yet the public/private relationships that were developed under RCPGP and other projects became operational to quickly respond in support of government and private sector response efforts as indicated below:

- Locating Citizen and Worker Housing - identified potentially thousands of housing units to support workers and citizens
- Citizen Protection - provided social media service that alerted New Jersey EOC/Fusion Center and 50+ companies to information that saved lives, rescued stranded citizens, and protected property and critical infrastructure
- Regional Rail Security - regional rail alerts were provided by the Association of American Railroads (AAR) which kept states and owner operators informed of rail related incidents and operating status
- Power/Utility Fleet Movement - expedited utility fleet movement through toll stations via a simple, jointly developed process created by state and private sector in order to reduced delays at toll stations for the electric sector trying to get to NJ/NY from around the nation
- Daily Private Sector Resource Availability Reports - provided real time data from private sector that helped NJ/NY response officials and the private sector quickly locate thousands of open and/or closed fuel, food, pharmacy, and hotel locations. According to FEMA, this information was used to brief the White House daily and was the central planning data used during the first 2-3 days of SANDY.
- SANDY exposed many things to the region. Some strengths. Some weaknesses. These has been outlined in the "What We Learned" Section of this report. Most notably is that "preparedness" is less about having a plan and much more about sustained planning.



IV. HOW WE WORKED & ADAPTED

Fortunately for the RCPGP process, most of the major jurisdictions in the mid-Atlantic had previously participated in programs of the [All Hazards Consortium](#) (AHC). This is an independent, state-sanctioned 501c3 not-for-profit organization created by state-level emergency management agencies in 2005 to facilitate collaboration with each other and the private sector. But while the AHC's network and experience has been essential to progress, the needs of RCPGP required a transformative approach.

The All Hazards Consortium convened and facilitated extended conversations among the mid-Atlantic jurisdictions. Initially, participants included state-level preparedness and planning professionals from each emergency management agency. A shared set of informational needs and analytical tools were identified. From this list of shared needs individual projects were conceived and each jurisdiction was invited to provide leadership to projects of particular interest.

This project management approach emphasized being realistic regarding the independence of the major players, and acknowledged the skepticism – in some cases reluctance – to engage in such an expansive planning activity.

The initial projects were conceptually and strategically linked, while execution was decentralized. Each jurisdiction was responsible for conducting its project or projects on behalf of the whole region. Most jurisdictions had a real interest in the outcomes of projects being managed by other jurisdictions.

Face-to-face regional meetings were conducted two or three times per year. Monthly teleconferences were conducted on a regular schedule. AHC staff played an ongoing facilitative role meeting with individual project teams and purposefully stitching together relationships between teams and, as a result, between jurisdictions. Projects that produced regionally relevant and practical outcomes often received additional support. Some projects filed early final reports.

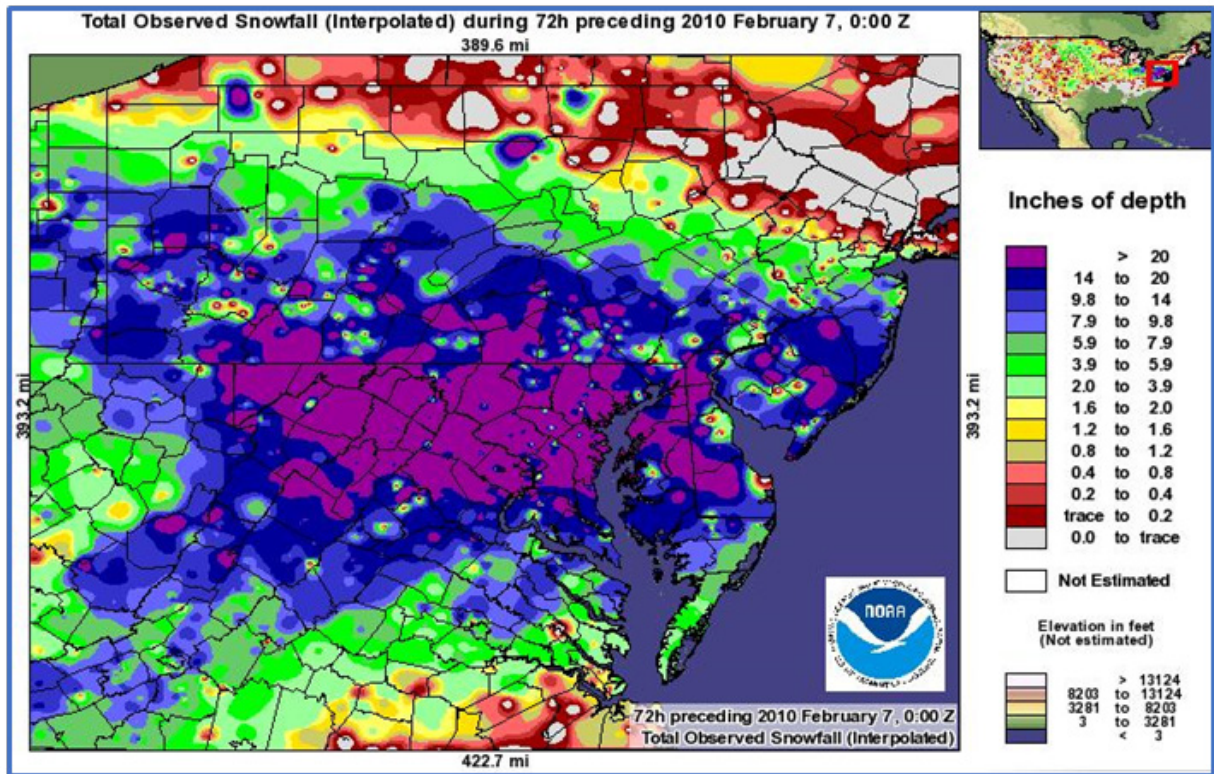
As the private sector became more integrated in the planning process with the states, the overall planning efforts dramatically enhanced the development of broad shared perspectives, a common intent or agreement on how to go forward, a coordination of public/private actions, and, most importantly, trusted operational public/private relationships.

The national RCPGP effort had emerged in part from the perceived “threat” of a mass-evacuation of Washington DC. When the grant program was initially authorized and funded, some studies suggested that if a hurricane or radiological event or some other disaster prompted such an evacuation, the secondary-effects would overwhelm the entire region. This gave individual jurisdictions a sense of shared risk, both politically and substantively. This was reinforced by the October 2009 broadcast of the History Channel's documentary Day After Disaster, which vividly portrays the consequences of a nuclear attack on the nation's capital.

Real-world risks also influenced how the mid-Atlantic RCPGP emerged. On January 12, 2010, a massive earthquake and over fifty (50) strong aftershocks killed tens of thousands in Haiti, prompting one of the most significant humanitarian logistics operations since the Berlin Airlift. In February 2010, much of the mid-Atlantic experienced a “snowpocalypse” that seriously tested both private and public response capacity. In March 2011, an earthquake spawned a tsunami that caused a nuclear power disaster in Northeastern Japan. Many in the mid-Atlantic acknowledged that something analogous could happen here and the Japanese were much better prepared than us. In June 2012 a derecho, a widespread windstorm, swept across much of the region, wreaking havoc on the electrical grid and demonstrating potential for cascading failure in fuel distribution, water pumping and treatment, and a whole host of critical infrastructure and key resources (CIKR).

Facilitation of planning for CATEX 2013 Exercise





Real events, including the February 2010 Snowpocalypse (above), influenced RCPGP catastrophic planning

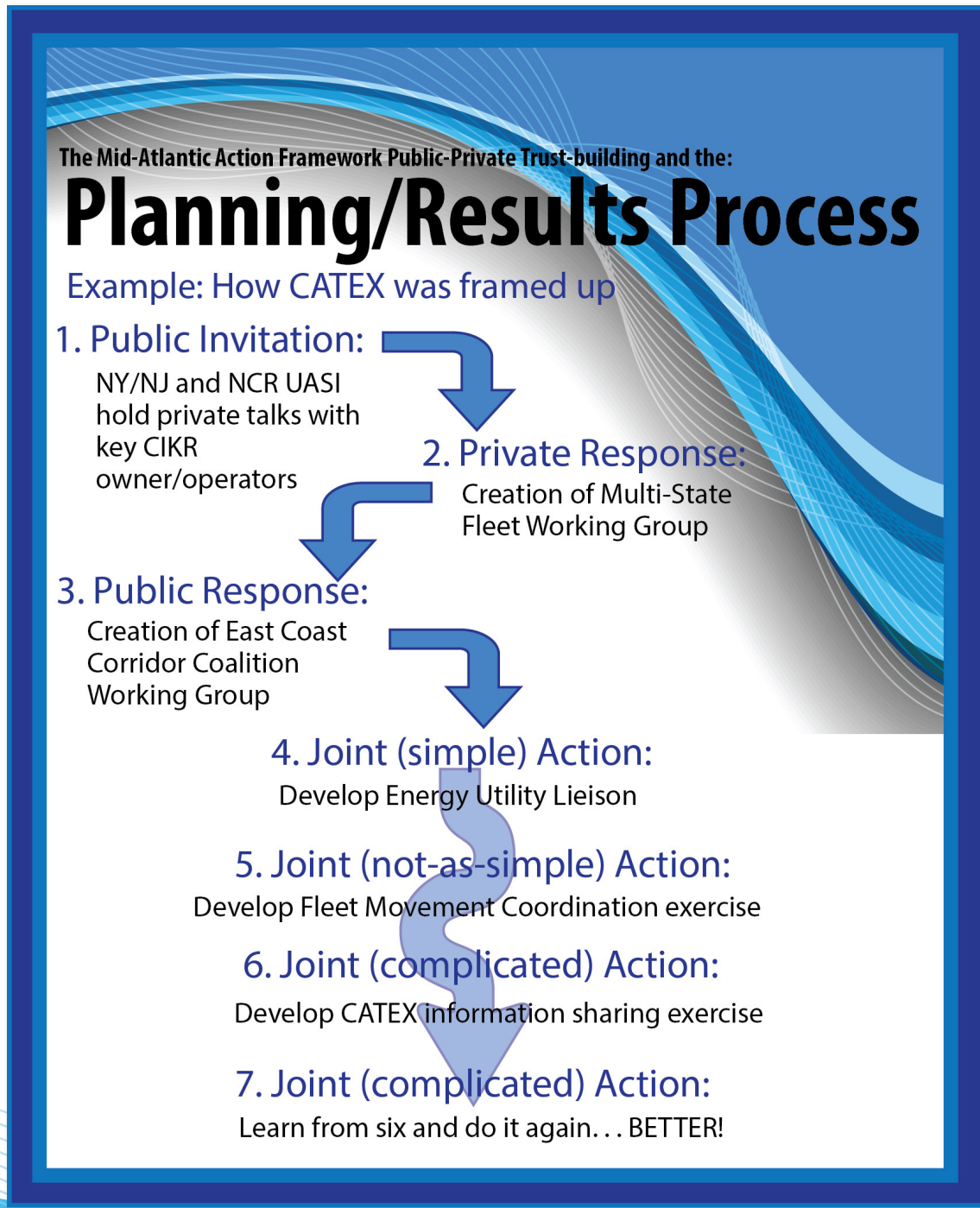
Superstorm SANDY hit hardest north of this RCPGP region. But this October-November 2012 event was a close call in many different ways. SANDY could have easily been much worse; it was not even a hurricane at landfall. **But the storm demonstrated that a large-scale loss of electric power distribution capability does not bounce back easily.** Each day without power multiplies consequences, often in ways that had not been widely predicted. Response was complicated, distracted, and delayed by an insufficient understanding of CIKR systems and, especially, their interdependencies. Recovery was seriously delayed by lack of information, coordination, and meaningful collaboration between various public sector jurisdictions and key private sector operators.

SANDY demonstrated – again – that “best laid plans... often go awry” (Robert Burns). Well-considered and detailed plans existed for a SANDY-type event. Our professional colleagues in New York, New Jersey, and elsewhere reported to us that too often well-documented plans had no actual influence on the 2012 response.

These real world events pushed the mid-Atlantic RCPGP more and more toward pre-event information sharing, relationship building, understanding existing critical infrastructure and strategic capacity, facilitating key capabilities, and conducting exercises.

The analysis necessary to initiate planning was given priority. The exercises necessary to socialize and test planning assumptions were given priority. Writing reports of findings and implications was given priority. Development of actual plans became secondary.

We focused on developing sustainable processes that could produce actionable, operational results by leveraging the Regional Integrated Planning Framework and its two working groups. By identifying key operational issues in the public and private sector, the integrated working groups worked together to develop trusted solutions that provided mutual benefits and tangible value propositions for both government and business. A good example of this was the CATEX annual exercise series. The Planning/Results process helped focus the region and produce several operational outcomes as illustrated below:



V. WHAT WE THINK OUR EXPERIENCE MEANS

The mid-Atlantic RCPGP did not originally intend to focus on private sector relationships, planning processes, training, and exercises. But as we engaged the special challenge of catastrophic risk, independent projects spontaneously derived similar strategic insights. By sometime in 2012-2013 a consensus emerged that many of these are innate to most catastrophic contexts. We have tried to articulate these emergent principles:

1. To engage catastrophic risks, a sustained, realistic, and inclusive planning process is more valuable than detailed plans.

Catastrophes are precisely unpredictable; as a result, the more detailed the plan, the less likely it will apply to what actually unfolds. But a continuous planning process will enhance risk awareness, build relationships, and increase response capabilities regardless of how a risk presents itself.

2. To engage catastrophic risks, the private sector is usually the owner and operator of the strategic capacity most critical to response and recovery.

Private sector capacity is often concentrated in a few key players and places. Identifying these players and places and focusing on how to protect, restore, and empower these players and places in case of catastrophe is probably the biggest payoff of catastrophe preparedness

3. To engage catastrophic risks, realistic “discovery” exercises are an especially helpful analytical and functional tool.

It is traditional to exercise the plan: to develop tactics, techniques, and procedures by which the plan is implemented. This approach is not appropriate for catastrophe preparedness. Rather, exercises become a key element in planning by exposing otherwise unrecognized threats, vulnerabilities, and consequences as well as experimenting with potential mitigation, response, and recovery options.

4. To engage catastrophic risks, strategic analysis, and mitigation before an event is the best threat-suppressant.

Information-sharing, workshops, and exercises can identify key vulnerabilities, impediments, and flawed planning assumptions well before a real-world test. Joint private-public priorities for operational mitigation or solutions can be identified. Adjusting resources, standard-operating-procedures, attitudes, and expectations to match what is exposed reduces overall risk.

5. To engage catastrophic risks, private-public collaboration during and after an event is crucial to saving lives and expediting recovery.

Public sector capacities and capabilities are optimized for recurring emergencies and relatively small footprint disasters. The larger the footprint, the more people who are affected, and the more complicated the cascading consequences the less likely the public sector can effectively contain an event. But without the collaboration and cooperation of the public sector, the private sector may be unable – or not allowed – to be resilient. Meaningful private-public collaboration is probably the single most valuable mitigation measure that can be developed.

6. Fundamental to advancing all of these principles is facilitation of intergovernmental and private-public participation in catastrophe preparedness..

This is a challenging skill-set involving cross-sector familiarity, active listening, translating private and public lexicons/cultures, trust-building, and creative problem-solving. These skills are dramatically dissimilar from stand-and-deliver instruction by Subject Matter Experts or the exercise of command-and-control authority. The mid-Atlantic RCPGP benefited from the existing skills of AHC staff and some project participants. But there is no systematic process currently in place for developing these skills

VI. HOW WE CAN SUSTAIN AND BUILD

As noted above, several mid-Atlantic RCPGP projects have continued to unfold, some close to their original form, others with new approaches and structures.

While it is probably too soon to be sure, the projects that are most sustainable seem to share certain characteristics. We have also noticed several persistent challenges.

1. Sustainment is encouraged by:

A. A core group of champions:

There is someone – and usually more than one person and up to seven – who makes the problem and building relationships around the problem a personal priority. This person is usually a networker, a facilitator, and often an experienced practitioner in a closely related field. While several champions have emerged from the public sector, the projects with the most forward momentum clearly have one or more private sector champions as well.

B. Use of a Regional Public/Private Partnership (501c3):

In some cases, engaging a regional partnership provided government a simple mechanism to reach out and engage private sector regulated entities.

C. Producing new learning:

The projects that have gotten the most traction are consistently unveiling new problems, novel solutions, and surprising outcomes that have clear operational value.

D. Talk moves to action:

All the best projects feature a lot of talking, though much more talking with than talking at. There are comparatively fewer presentations and many more workshops and exercises among the most sustained projects. Success is probably best assured when individual participants are motivated to independent action based on participation in the project.

E. Private Sector Ownership:

Most – though not all – of the projects that have had the most sustained action have been “owned” by the private sector. Sometimes the public sector initiated the process (as with CATEX) and the public sector may continue as convener and/or facilitator. But momentum and action is most sustained when some significant element of the process no longer depends on public sector funding or approvals.

F. Prior Investments are Leveraged:

Arguably the most rapid and sustained progress has been made in those cases where projects were organized around issues, functions, or problems that have already attracted significant public or private investment – and ideally investment by both sectors. Prior investment in some related activity is the best indicator of there being a shared interest in maximizing the potential return of the prior investments.

G. Producing Operational Results:

Planning needs to be linked to operational results. Producing results is essential to building trust between people and organizations. Operational results attract people and organizations to the process.

H. Building & Trust:

Building trust among states and the private sector is a difficult task. Many skills are needed: facilitation, conflict resolution, translation of language, honesty, and patience. People who trust one another tend to stay in the relationship.

2. Sustainment is discouraged by:

A. Imbedded cultures, processes and bureaucracy:

Both public and private sectors need to overcome their perceptions and phobias which create barriers to working together. Regulatory issues sometimes create unnecessary hurdles to planning. Mature organization and sector cultures create language and perception obstacles. As always, bureaucracy is always part of large organizations, public or private, which can cause unneeded and unnecessary delays.

B. Lack of results:

Achieving results quickly is important for keeping the private sector operational professionals engaged.

C. Complexity:

There is a tendency to attempt to address longstanding, complex operational issues instead of focusing on simple issues where results can be achieved quickly.

D. Operational Relevance:

Operational professionals and decision-makers in the public and private sectors are busy people and don't have time to waste on theoretical or conceptual matters. Planning activities must be linked to short and long-term operational benefits for them to stay involved.

E. Professional mobility:

Relationships take time, and relationships are often undone when participants take new jobs or change locations. This seems to be especially the case with many of the most dynamic participants. In the public sector, election results can have a disruptive effect on relationship building.

F. Lack of staff support:

The most successful projects sometimes uncover a problem or potential solution that requires a level of research or consistent engagement that is very difficult to achieve on a voluntary or irregular basis. The project is slowed or stopped by the absence of a structure or process or resource that can continue progress between meetings of the principals.

G. Public sector ownership:

The most common characteristic of the least sustained and least effective projects was a tendency to treat it as a public sector staff (or contractor) assignment. The more the public sector exercised control of the project, the less likely the project produced results that seemed to lead somewhere interesting to others, including other public sector organizations.

H. Infrequency:

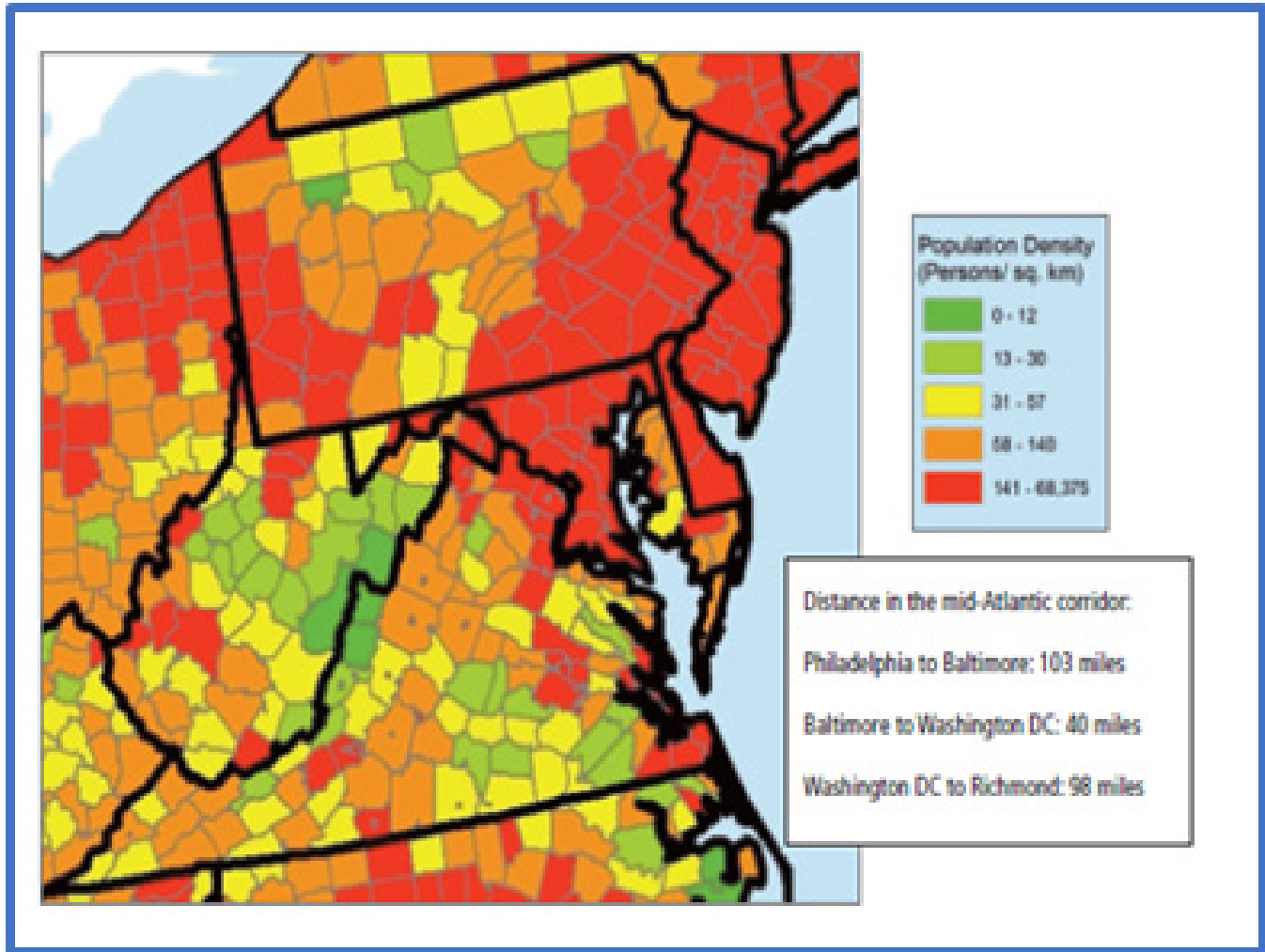
Thankfully, catastrophic events are not common. In some cases preparedness for catastrophe enhances resiliency to less impactful events, but not always. Each of the most sustainable projects have addressed this issue, but there does not seem to be a consistent or easy or assured answer.

These and other lessons learned are given much more detailed attention in the complete report of the Mid-Atlantic RCPGP experience.

We have ended up at a far different place than imagined when this program started in 2007. Our failures have been as informative as our successes. Our successes have almost always come with significant surprises.

VII. EPILOGUE

The Regional Catastrophic Preparedness Grant Program began in 2009. The mid-Atlantic RCPGP team has been one of ten participating team in the program. Other sites are focused on Honolulu, Seattle, San Francisco, Los Angeles, Chicago, Houston, Boston, Hampton Roads, and a region involving Southern New York, Northern New Jersey, Connecticut, and one county in Pennsylvania.



In most other locations, RCPGP has been treated as a step up from existing metropolitan planning and collaboration. The mid-Atlantic RCPGP region included all of West Virginia, Pennsylvania, Delaware, Maryland, Virginia, and the District of Columbia. This far exceeded most prior efforts at public sector collaboration involving UASI regions or other metropolitan area or multi-state planning and cooperation efforts. Just the size of the region was operationally challenging. Over time, we also learned this scope is a realistic precondition for authentic catastrophic preparedness.

As large – and at times unwieldy – as this region can be, we also found the need to collaborate with our peers outside the region. Over sixty (60) percent of materials and products purchased in Washington DC originate at the Ports of Los Angeles/Long Beach. Significant proportions of mid-Atlantic food and pharmaceuticals are sourced in New Jersey. If the mid-Atlantic goes dark, emergency response crews will arrive from across the United States and even Canada.

It took us an extended period, almost two years, to get our heads around how a catastrophe can be – almost certainly will be – much worse than anything any of us have experienced in our professional careers. Catastrophes are sometimes described as “High Consequence/Low Likelihood” events. But at least in terms of several natural threats, that “low” likelihood can be misleading.

According to the University of Arkansas, a deadly shift in the New Madrid fault is more likely to occur than not in the next 15 years and practically certain in the next half-century. The emergence of another virulent pandemic is historically probable. The eventual recurrence of a mid-Atlantic blizzard such as that in 1888 or 1899 is precisely unpredictable and also a very good bet.

When the RCPGP process began, it is probably fair to say that many, maybe even most, of those involved defined catastrophic as the worst they had personally experienced multiplied by two or maybe three. But catastrophic consequences don't just multiply; they cascade logarithmically.

By 2010, most of those who regularly participated in the mid-Atlantic RCPGP accepted that it is a realistic planning assumption to anticipate an event that will result in tens of thousands of deaths and injuries, a long-term loss of electric power, and secondary and tertiary effects on transportation, telecommunications, health care, and other sectors. When scoped and scaled this way, it quickly becomes apparent that strategies involving “whole community” or “all-of-nation” are not just nice to have but are absolutely necessary.

Truly catastrophic events are beyond the response capability of any combination of federal, state, and local assets. **On the day after a catastrophe, the only way a densely populated urban area will fill demand for water, food, pharmaceuticals, medical goods, fuel, electricity, and telecommunications is – mostly – with the same suppliers and systems with which the area was served the day before.**

Public sector assets are important to filling gaps and serving the most vulnerable populations. But when whole populations are seriously impacted, there is no reasonable way for any outside resource to sufficiently scale up in a timely way. Many emergency management best practices developed from response activities involving small footprint disasters and/or larger events (i.e. wildfires) in areas with comparatively low population density. In these contexts, temporarily replacing lost private sector capabilities is possible and, in some cases, critical. But in densely populated areas, restoring private sector capability is the only practical solution to any large-scale outage.

VIII. ACKNOWLEDGEMENTS

There are too many people to thank here. But clearly FEMA deserves considerable credit for allowing the mid-Atlantic RCPGP to engage in so many experiments. Each of the state-level jurisdictions gave considerable time and talent to project management, outreach, and evaluation. An array of private sector participants volunteered an immense amount of time and expertise.

Catastrophes, we have learned, are profoundly unpredictable. Fortunately, we have learned that human creativity, generosity, and intelligence can also exceed our expectations.

Electric Sector

American Electric Power
Baltimore Gas & Electric
Central Hudson Gas & Electric
ConEd
Connecticut Alternate
Connecticut Power & Light (NE Utilities)
Connecticut Primary
Consolidated Edison
Dominion Power
Edison Electric Institute
First Energy
First Energy / JCP&L
First Energy / PA
First Energy (Ohio)
Georgia Power/Southern Company
Jersey Central Power & Light
Northeast Utilities
Peco Energy
PEPCO
PEPCO Holdings Inc. (PHI)
PHI (Atlantic City Electric)
PHI Emergency Preparedness Management
PPL Electric Utilities
PSE&G
PSEG Long Island
Southeastern Electric Exchange

FEMA Region 2
FEMA Region 3
FEMA Region III
Maryland Department of Transportation
Maryland Emergency Management Agency
Maryland Trans Authority Bridges and Tunnels
Maryland Trans Authority Emergency Response & Ops Support
Maryland Transportation Authority Police
Maryland Trans Authority Security, Risk Preparedness
National Capital Region State and Local Governments
New Jersey Emergency Management
New Jersey Office of Homeland Security & Preparedness
New York State Division of Homeland Security and Emergency
New Jersey Board of Public Utilities (Electric)
New Jersey Department of Transportation
New Jersey Food Council
New Jersey Fuel Council
New Jersey Fuel Merchants Association
New Jersey Gasoline C Store/ Motor Fuels Retailer
New Jersey Office Homeland Security & Preparedness
New Jersey State Police/DOT Liaison
NOAA
North Carolina Emergency Management
New York Port Authority
New York City Department of Transportation
New York City Office Emergency Management
New York Department of Transportation
New York DHSES-Office Emergency Management
New York Department of Public Safety
NYS Office of Homeland Security
New York Energy Research & Development
Pennsylvania Department of Transportation
Pennsylvania Emergency Management Agency
Philadelphia Office of Emergency Management
US Customs and Border Protection
US Department of Energy
US Department of Transportation
US National Guard
Virginia Department of Emergency Management
Virginia Department of Transportation
Virginia Governor's Office
West Virginia Department of Transportation
West Virginia Emergency Management Agency
West Virginia Office of Military Affairs and Public Safety

Government

Connecticut Department Emergency Management & Homeland Security
Connecticut Department of Transportation
Connecticut Office Emergency Management Agency
District of Columbia Emergency Management & Homeland Security
Delaware Department of Transportation
Delaware Emergency Management Agency
District of Columbia Department of Transportation
District of Columbia Homeland Security and Emergency Management
FEMA HQ
FEMA IPAWS
FEMA National Capital Region Office of Coordination

Food Sector

American Bakers Association
C & S Wholesale Grocers Inc.
Five Guys
Food Industry Alliance of NYS
Food Merchants Institute
Giant Food
Marsh & McLellan (on behalf of Sysco)
Pepperidge Farm
Safeway
Sysco Operating Co.
Wakefern Foods

Fuel Sector

American Petroleum Institute (API)
BP Terminal in Carteret, NJ
Buckeye Linden NJ Ops
Citgo
Colonial Pipeline
Connecticut DEEP (Fuel Task Force)
Fuel Merchants of NY NJ
Kinder Morgan
National Petroleum Council
Perth Amboy Terminal
Petroleum Marketing Association
Texas Fuel Marketers
Texas Oil and Gas Association
West Virginia Oil Marketers & Grocers Association

Private Sector

Cardinal Health
Cowan Systems
Integrity Consulting
J.B. Hunt
Owens & Minor
Nestle Waters
Verizon

Rail Sector

AMTRAK
Maryland MARC
Virginia VRE
WMATA

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