



# Catastrophic Response

Coordination | Communication | Unity of Effort

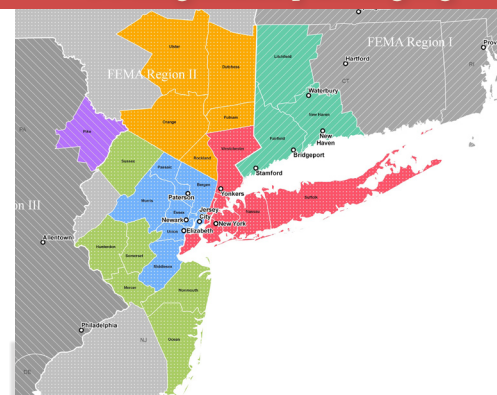
*Working together makes us stronger*

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Satellite image of Hurricane Irene over East Coast

As we continue to struggle with the impacts of Hurricane Irene, emergency managers across the NY-NJ-CT-PA Project Site, along with their agency and stakeholder partners, are reviewing their responses: *How well did we do?* and *How can we do better next time?* Based on public and media feedback, emergency managers performed well under difficult conditions. State agencies and FEMA in particular deserve enormous credit. In the “How can we do better” category, however, we must place regional coordination. We are not yet able to effectively implement the Regional Catastrophic Plans we have developed under this program. This condition will no doubt improve as our training and exercise programs are rolled out in the coming months. But we must always recognize that plans are merely “credenza ware” until people use them to compel effective action. The bigger the job, the more valuable regional information and resource sharing will be to our response and recovery. Our challenge is to know how we will convert planning into action before the next hurricane comes.



## EXEC'S PODIUM

### HURRICANE IRENE: A Learning Opportunity

JOSEPH F. BRUNO – Commissioner, New York City Office of Emergency Management (OEM)



Hurricane Irene brought with it a range of devastating impacts across our vast region. More than a month later we, along with dozens of counties around the region, continue to struggle with these impacts. At the same time my agency is leading an after-action review process with our agency and stakeholder partners to analyze what happened, why it happened, and how it can be done better.

We have spent the past six years building the most comprehensive and operational Coastal Storm Plan in the nation. Anyone who has spent more than a few minutes with me has heard our planning assumptions: Worst-case Category 4 hurricane; 31-foot storm surge; 3+ million residents to evacuate; 600,000+ evacuees to shelter; 501 Hurricane Shelters, 8 Special Medical Needs Shelters, and 65 Evacuation Centers to open and operate (our motto is “Safe, secure, staffed, and supplied”).

In my experienced opinion, the Coastal Storm Plan worked. But this view is not universally shared, even by those who worked alongside us as part of the city's response. These people saw its many rough edges. They talk about the difficult and precarious issues that arose in those long hours prior to landfall. They now want to “fix” the plan to smooth those rough edges. They want to identify and address every contingency so as to eliminate any problems in the future. It is difficult to imagine any plan that could do this.

The Coastal Storm Plan was not designed to anticipate and solve all problems. Its mission is to break the incident down into pieces, to get teams working on those different pieces, and to give them the information and resources they need to do the job. Let me briefly explain each of these different steps.

First, the Coastal Storm Plan breaks a big problem (i.e., an approaching hurricane) into manageable pieces. These pieces

include Storm Tracking & Decision Making; Evacuation (of healthcare facilities, the homebound, etc.); Sheltering; Logistics, and Recovery.

But rather than describing tactics, the Plan lists roles and responsibilities for each piece and gets the right agencies in the right place to simultaneously mobilize, activate, operate, and execute their respective operations. These include the Unified Operations and Resource Center to manage sheltering operations, the Healthcare Facility Evacuation Center to manage hospital and nursing home evacuations, and the Logistics Center to manage resources.

Finally and perhaps most importantly, the Coastal Storm Plan relies on our best asset, the Emergency Operations Center (EOC), to tie all of these pieces together. The EOC gets the right information to the right people at the right time (including City Hall and the field) to enable them to identify and quickly address those inevitable problems that will arise.

An example of this was the mayor's evacuation order that added dozens of healthcare facilities to a mandatory evacuation within hours of the arrival of gale force winds. The Healthcare Facility Evacuation Center, with more than 20 staff from city, state, and non-profit partners, worked closely with the EOC to identify the transportation resources and destination beds we needed to accomplish the mission.

Hurricane Irene was an enormous challenge for NYC and for the NY-NJ-CT-PA region. However, in addition to recognizing its devastating impacts we must also consider it a learning opportunity because it allowed us to test our plans under real world conditions. In my opinion, our Coastal Storm Plan survived this challenge quite well.

## SAHANA & IRENE

NYC OEM sent over 1,000,000 messages to 130,000 City employees to mobilize close to 6000 staff to run the 155 different shelter and evacuation center operations during the Coastal Storm Plan (CSP) activation for Hurricane Irene.

The NYC Sahana Emergency Management System is a web-based computer program that allows us to create staffing assignments using pre-identified staff and facilities. It is also used to track shelterees and staff when a disaster actually happens and shelters come online. It was built using Free and Open Source and has been adapted for NYC. NYC OEM has been working with the City University of New York (CUNY) over the past year to completely redesign and enhance the capabilities of this system. Just as we completed development of our next generation NYC Sahana, we were given the rare opportunity to test it in a live activation for Hurricane Irene.

As Irene approached, City staff would need to be notified of the CSP's activation of our sheltering system. This complex process had previously taken a month of manual labor, but Sahana reduced that to a matter of hours. To appropriately assign staff, sufficient lead time is required in a hurricane scenario and it is at this level that we identified our greatest gaps.

Once staff and shelterees began arriving, Sahana started its other mission: tracking the thousands of staff and shelterees entering the CSP shelter system. As each site came online and began entering data, they would appear in real time snapshots in the custom dashboards built for Sahana; the data received was invaluable.

Lessons learned and best practices from Irene have been incorporated into the NYC Sahana application. Sahana is going to be shared with our entire RCPGP Program area and beyond for free through the new Sahana Whole Product Solution project being developed. This project is taking all the software necessary to install the Sahana Emergency Management System and packaging it with comprehensive, user-friendly documentation and training describing how to install, manage, and use Sahana for events like Irene. It's important to remember that technology like Sahana does not run an operation or replace the people that make critical decisions and manage systems. Sahana assists emergency planning, but it does not take the place of emergency planning.



## The UORC – Coordinating NYC’s Emergency Shelter System

When it became evident that Irene would make landfall over New York City as a Category One Hurricane, the New York City Office of Emergency Management activated its Coastal Storm Shelter Plan. At the heart of this plan is the Unified Operations and Resource Center (UORC – pronounced “U-Rock”), an interagency task force led by NYC Department of Homeless Services and NYC OEM. The UORC operates from a stand-alone facility established when the shelter plan is activated so that the massive coordination effort required for the emergency shelter system can run parallel with the NYC Emergency Operations Center (EOC) without diverting personnel from other storm-related operations.

Prior to landfall, City agencies deployed more than 70 representatives to run the UORC along with subject matter experts from the Regional Integration Center (RIC) team. The UORC staff would oversee the sheltering operation from set-up to demobilization.

As the storm approached, UORC staff guided 65 Evacuation Centers, 82 Hurricane Shelters, and 8 Special Medical Needs Shelters through the mobilization process, addressing issues such as facility set-up, logistics, shelter stockpile delivery, and the assignment and training of staff so that the facilities would be ready to receive evacuees.

Throughout the event, as evacuees arrived and the storm made landfall, the UORC maintained communication with all facilities in the shelter system, identifying planning concerns and gaps, as well as critical decision points for City leadership. The UORC also collected information on evacuees, facilities,

and staff, and issued reports on a regular schedule to become part of the NYC EOC Situation Reports. At the peak of the event, the UORC had coordinated a system with more than 5,000 shelter staff and approximately 10,000 evacuees.

The UORC staff focused particular attention to the needs of those in the shelters with functional and access needs, including the medical requirements of residents from several nursing homes that unexpectedly evacuated the Rockaway Peninsula and sought refuge at New York City’s Special Medical Needs Shelters.

After the storm passed and it was safe for evacuees to return home, the UORC coordinated the demobilization of the shelter system, including providing accessible transportation to those with functional and access needs so that everyone who was sheltered in the system could return home safely.



UORC Leadership Preparing for Briefing

## Hurricane Irene Meets the RIC

As Hurricane Irene churned in the Atlantic Ocean off the Carolinas, many emergency operations centers in the NY-NJ-CT-PA region and their associated coastal storm plans had already been activated. All forecasts showed the storm tracking directly through the center of our region. It was not a question of whether we would be hit, but how hard. A crucial question remained: could emergency management operations get big enough fast enough?

Recognizing the wealth of planning knowledge at the RIC, the RCPT called on the team for support. This activation presented an opportunity to see our plans in action, and to test our Interagency Task Forces (ITF) as a mechanism for coordination and problem solving.

By Thursday August 25th, the entire RIC staff was integrated into NYC EOC’s 24-hour rotation to work on the following operations: sheltering, evacuation, transportation, debris management, critical infrastructure, logistics, and health and medical. RIC staff assigned to the sheltering mission were detailed to the NYC OEM UORC, (see article above).

As the storm approached the Carolinas on the morning of August 26th, RIC staff within the UORC and in the field were troubleshooting issues related to the opening of Evacuation Centers, Hurricane Shelters, and Special Medical Needs Shelters throughout the five boroughs. RIC Executive Director Steven Gutkin responded to individual evacuation centers and shelters to help organize staff and increase the effectiveness of the facility.

By late Saturday evening (August 27th) when tropical storm-force winds



Shelterees at NYC Special Medical Needs Shelter

arrived in the region, approximately 10,000 persons and their pets occupied the City’s shelters without incident, and shelter supplies to sustain seven times that client population for four days had been delivered and deployed.

As Irene departed the region, residents returned to their homes and the shelters began to close. The RIC logistics team remained to augment the NYC OEM logistics operation of demobilizing the stockpile and retrieving the unused supplies to be transported back to the City’s warehouses. At that same time and following a request from New Jersey State Police OEM, several RIC staffers deployed to assist in setting up shelter operations in Paterson, NJ. It had become apparent that approximately 5,000 residents of a housing complex would be evacuated due to rapidly rising flood waters from the Passaic River. The RIC team responded, setup a shelter, and later transitioned over the operation to the American Red Cross.



Hurricane Irene over New York City