

NANTUCKET EMERGENCY MANAGEMENT

Emergency Operations Center

EXTRATROPICAL STORM NOEL

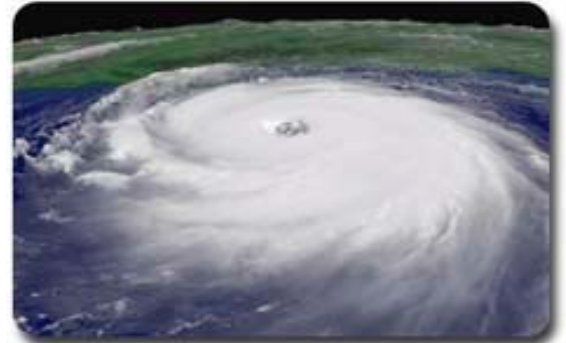
NOVEMBER 3, 2007

AFTER ACTION REPORT – Draft #1

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SITUATION

In response to Noel, a powerful extratropical storm, Nantucket Emergency Management activated the Emergency Operations Center (EOC) on Saturday morning at 06:45am. This was to be a limited activation composed of staff from the Nantucket Fire and Police Departments supported by Information System managers from the Public Safety and Town of Nantucket IT Departments. RACES provided radio monitoring and communications services for the duration of the event. The MEMA Region 2 EOC in Bridgewater was also activated at 7am. The EOC remained open for the duration of the event and was secured at 1030pm. The following department/organization liaisons were periodically represented at the EOC throughout the event: Marine and Coastal Resources Department, Department of Public Works, Health Department, School Department, Wannacomet Water Company, Mass State Police, United States Coast Guard and National Grid.



WEATHER

The track of Noel passed approximately 60 miles SE of Nantucket, with its greatest impact on Cape Cod & the Islands. The storm was downgraded from a Category 1 Hurricane to a Tropical Storm as it made its way along the Atlantic seaboard. The strongest winds occurred between 4:00pm and 10:00pm. The highest winds were expected on Cape Cod & the Islands, which saw sustained winds of 50-60mph with gusts of 80-90mph. The National Weather Service reports the official highest gust to be 72 mph.

A Coastal Flood Warning was in effect, with the greatest potential for coastal damage with the 8:21pm high tide occurring with winds at their height and seas building to 25 to 30 feet to the east and 10 to 12 ft. in the Sound. All coastal areas were warned to be prepared for a significant storm surge, particularly North-facing & NE-facing areas, as up to a 3 ft. to 5 ft. storm surge was predicted for Nantucket.

Rain, up to 1 to 1 ½ inches per hour, impacted SE MA, Cape Cod & the Islands where 3.5-5.5 inches were possible. All coastal areas saw moderate coastal flooding and the island experienced localized flooding in urban street and areas with poor drainage. The official National Weather Service estimate of total rainfall for Nantucket was 3.5 inches.

Overnight temperatures remained in the upper 40s.

EOC ACTIVITIES

Friday November 2, 2007: EOC was commissioned.

Friday November 2, 2007 at 2:30pm: A pre-incident briefing was held at the EOC where the operational objectives of the EOC and the various departments were discussed. The assembly participated in a conference call with Forecasters from the National Weather Service in Taunton, MA to discuss the advancing storm. The NFD, NPD, DPW, Marine Dept. and the Town of Nantucket IT Systems implemented their pre-event disaster plans which included identifying available personnel, securing vulnerable facilities and equipment, pre-deploying sandbags and barricades as well as preparing the EOC to be fully functional.

Saturday November 3, 2007 at 6:45am: EOC was made operational and staffed. Chiefs Pittman and McDougall were present as well as support and IT personnel. The EOC had full access to cable TV channels for weather and storm information as well as internet access to the State EOC in Framingham and the Region II EOC in Bridgewater. The EOC remained functional until it was secured at 10:30pm by Chiefs Pittman and McDougall. RACES provided communications monitoring and reporting via shortwave radio network with the National Weather Service in Taunton, MA and the Region II EOC in Bridgewater. They also maintained radio contact with the American Red Cross in Hyannis, MA regarding the status of emergency shelters and received updates on the storms impact on the island from amateurs using equipment in their homes located island wide. Throughout the event the EOC monitored reports of problems with downed trees, power wires and flooding. Appropriate crews were dispatched to address the situations as we became aware of them.

Sunday November 4, 2007 at 12:00 noon: A post-incident de-briefing was held in the EOC to assess the damages caused by the storm and to review the clean-up/recovery plans. This meeting was attended by representatives of the NFD, NPD, DPW, Marine and Coastal Resources Department, USCG, Health Department, Building Department, Conservation Commission, Town and Public Safety IT Departments and National Grid.

Monday November 5, 2007: EOC was decommissioned.

LOCAL STATE OF EMERGENCY

None declared

GOVERNOR OR PRESIDENTIAL DECLARATION OF EMERGENCY

None declared at this time

EMERGENCY SHELTERS

None required or opened during this event

POWER OUTAGES

Power outages were scattered almost island wide. National Grid reported that on the morning of the 3rd they received very few storm related outages until mid-afternoon then almost all reports were storm related. From the time period of 4:00pm to 10:00pm it is estimated that 20-30% of the island was experiencing power outages or interruptions of some sort. Most situations were remedied within 20 minutes of crews arriving on scene. By Sunday morning it was estimated that approximately 100 or less homes were without power. This number was down to one by Sunday evening. The worst damage to the power distribution system occurred on North Liberty St. when a tree fell on a main power feed. By Monday power had been restored to all “known” outages.

The fact that the DPW and National Grid trimmed many trees prior to the storm was probably instrumental in reducing our risks. They both responded throughout the storm to reports of arching wires and pole fires that resulted from limbs touching the wires. In most cases they were able to cut the limbs before they took out the wires.

National Grid had extra crews stationed on the island prior to the event. The Steamship Authority facilitated the movement of these extra crews to Nantucket Friday evening.

ROAD CLOSURES

There were only a few road closures mostly due to downed trees, downed wires or flooding. Early in the event as tree limbs started going down the DPW was able to quickly clear them using chainsaws and tractors.

The Milestone Road was closed for about 1.5 hrs. Due to a large tree down in the roadway Saturday evening.

The Brant Point area was barricaded off as flooding started from Jetties Beach to Broad St at Water St. Easy Street was closed as flooding started up to Beach Street also. The primary affected roads were Easton Street, Hulbert Avenue, Bathing Beach Road, North Beach Street, Lower Broad Street and Easy Street.

Hiller Lane was closed due to a washout overnight Saturday. Several other rural roads may have been impassable due to fallen trees that were not reported to the EOC. This road will need to be repaired prior to reopening.

The parking lot for the Sankaty Beach Club was closed after reports that the bluff had eroded and storm watchers were using it to view the approaching storm. It was reopened after DPW crews inspected it Sunday and found it to not be a threat.

BEACH EROSION



Serious beach erosion was a concern throughout the event. Coastal roadways and beaches that usually flood were all of concern due to the combination of the tide height, plus surge, waves, and rainfall. The combination of these four components combined resulted in a significant splash over and water pooling on the roadways adjacent to the coast in the Brant Point and Downtown areas.

Madaket: Additional erosion in the Massachusetts Ave. and Rhode Island Ave. areas resulted from this event. At least four more structures are now directly impacted by the surf. The Building Dept. and Conservation Commission were consulted to

determine whether or not any action was warranted at this point. Both advised that the owners were aware of the problem. Power was shut off at these locations due to the surf pounding the foundations.

Sconset: The Sconset Bluff did not appear to have eroded to the point of putting any additional structures in any greater risk. The terracing being built by the Sconset Bluff Association appears to have been washed away but the bluff is still intact.

Sheep Pond Road: Additional erosion occurred, assessment on the impact on beach properties not yet accomplished.

Hoicks Hollow: Additional erosion occurred, preliminary assessment does not indicate any additional threats to structures.

PRELIMINARY DAMAGE ASSESSMENT

Town Harbor: The Marine and Coastal Resources Department reports that the harbor suffered some impact as a result of the event. A privately owned wharf known as the Old North Wharf was damaged and made unusable most likely as a result of the wind and surf. This damage did not impact the ability of the Hi-Line to operate safely into and out of the Commercial Wharf. Six boats were washed up on various beaches, all less than 26' in length.

A large number of scallops were washed up on various beaches mainly in the Mass. Field Station area of the harbor.

Prior to the event the Marine and Coastal Resources Department assisted with the removal of 200+ boats from the harbor. This massive haul out likely resulted in a serious reduction in our loss potential overall. The Marine Department also relocated approximately 400,000 scallops prior to the event in an effort to minimize losses to the fishery due to the storm.



done.

Madaket Harbor: Madaket Harbor had several small boats less than 26' in length wash up on the beach. The marina flooded up to the boats racks. No damage to any docks reported at this point.

Ester Island: Damage Assessment to be done.

Tuckernuck Island: Bernie Bartlett reports that the island suffered some serious beach erosion on the exposed shorelines and damage to a common pier. At least one boat is reported to have washed ashore resulting in a spilling of two golf carts onto the beach. Further assessment to be done.

Muskeget Island: Damage Assessment to be

Nantucket Core District: Several windows damaged by pressure differentials and flying debris. A large window at the Congregational Church blew out. A chimney behind the Baptist Church collapsed and landed on a parked motor vehicle. Park benches and garbage cans flew around like missiles during the event breaking some windows and possibly causing some damage to parked vehicles.

Public Facilities:

The Boat Brant Point Boat House suffered some damage to the shellfish up-Wellers, further assessment being done. The Town Pier lost two ramps and the outer pilings of the pier were damaged by the fishing boats tied to them. The Harbormasters Office was damaged after debris broke a second story office window allowing the wind and rain to saturate the interior of the structure.

Jetties Beach: Preliminary damage reports indicate that Jetties beach suffered some damage due to the wind and coastal flooding. The buildings were completely surrounded by salt water and board walk was obliterated. Further assessment needed.

Public Safety Facilities: The Nantucket Fire Department lost a tree and some roof shingles as a result of the wind. The Police Department lost a portion of the roof at the Sconset Loran Station. The outer building is used to store records, found property and evidence. Both the NPD and NFD lost power at various times during the event but the backup generation equipment operated as expected. Communications was maintained throughout the event.

Educational Facilities: The preliminary damage estimate indicates that the High School suffered some damage to roof mounted ventilation systems and a Smoke Hatch blew open which allowed some rain to enter the facility. The Elementary School had some new landscaping damaged as a result of the wind.

The school system had been scheduled to have a busy day on Saturday due to many pre-scheduled events. They closed the buildings on Saturday therefore canceling most of the events because of the warnings regarding the approaching storm. This action most likely resulted in less traffic and reduced the exposure of the population to the dangers of this hazardous storm.

Recreational Facilities: The Delta Fields lost two dugouts for the baseball fields. Jetties Beach lost parts of their boardwalk and possibly had damage to the buildings. Saltwater surrounded all of the buildings on Jetties Beach through Sunday. The parking lot was flooded even on Monday November 5th.

Critical Transportation Facilities: Nantucket Memorial Airport was closed once the winds reached sustained speeds of 45 mph. All flights in and out were suspended for most of Saturday afternoon, evening and night. Flights resumed Sunday on a normal schedule. The airport experienced no storm related damage of significance. Both the Steamship Authority and the Hi-Line suspended service on Saturday due to high winds and seas. Service resumed on a normal schedule on Sunday. Hi-Line service was not impacted by the destruction of the Old North Wharf however a survey of the water needed to be completed to insure underwater debris did not put the Gray Lady in any danger.

Critical Infrastructure: During the storm all critical infrastructure facilities remained operational. The sewer treatment plants were able to operate normally with the exception of the Sconset Treatment Plant which had to switch to generation power due to fluctuations in the power grid. The recent II work in the Brant Point area is credited with eliminating an estimated 3 million gallons of storm runoff from the flooding that occurred into the sewer treatment plant due to the installation of sealed manhole covers. The hospital remained operational during the event. All emergency communications remained operational. The Wannacomet Water Company was able to sustain operations without incident. All tanks were filled prior to the event.

POLICE DEPARTMENT CALLS FOR SERVICE

The NPD responded to 187 documented calls for service from Midnight November 3, 2007 until 7:00am on Sunday November 4, 2007. Of those calls nine of them were 911 emergency calls and 57 of them were alarm calls. Numerous calls were regarding downed wires and trees in roadways. Three Troopers from the Mass. State Police assisted with responding to calls during the height of the storm. Their assistance was appreciated. The lack of a central dispatch system no doubt resulted in the dispatching of officers or fire department personnel to numerous duplicate calls. Also the actual number of calls was not captured since so much of the information was taken down on notepads by dispatchers.

FIRE DEPARTMENT CALLS FOR SERVICE

Records being compiled.

GENERAL OBSERVATIONS

The EOC was a work in progress for this event. Pre-event commissioning of the center was not complete and last minute work was done to bring necessary information sources into the center. Throughout the event the IT personnel worked to maintain contact with the outside world via the web utilizing cable, DSL, wireless and satellite communications options available to us. They were able to insure that we had outside communications via the web with State Emergency Managers for the duration of the event. All personnel involved agreed that the concept of managing an event such as this from an EOC was a worthwhile process. Many suggestions were made to improve the operations, mainly by adjusting procedures and implementing policy.

It was also suggested that the garage area outside the EOC be set up as a rest center for DPW, NFD, NPD and Utility Crews who were out in the storm addressing problems. It is felt that this would allow us to insure that they received adequate nutritional support and rest during an on-going event.

We were also made aware that the Nantucket Cottage Hospital had changed their policy and will no longer admit persons without a medical need. This will require us to provide alternative sheltering for a small number of people who may be elderly but without any medical dilemma during any future events. The NFD is going to look into establishing an agreement with an organization on the island that may be able to assist with this.

The damage assessment is on-going. Damage assessment forms were distributed to all pertinent Town department heads after the event. A compilation of all public facilities, infrastructure or recreational facilities will be compiled and provided to MEMA in the event that post disaster funding is made available.

A special note should be made regarding the actions of Bob Gardner and his wife who brought food and drinks to the EOC for the staff to enjoy during the event. I can't say that I ever had any lasagna that tasted any better. Their generosity and thoughtfulness was greatly appreciated by many of us who had been on duty for the duration of the event.