



Air Station Atlantic City in New York

NEW YORK — A Coast Guard MH-65 Dolphin helicopter from Air Station Atlantic City, N.J., patrols above Long Island Sound, which was heavily impacted by Hurricane Sandy, Nov. 6, 2012. The upgraded MH-65Ds from Atlantic City were instrumental in responding to the storm. U.S. Coast Guard photo by Petty Officer 3rd Class Cynthia Oldham.

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## **Recapitalized Assets Help Coast Guard Respond to Hurricane Sandy**

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U.S. Coast Guard personnel stationed in New Jersey and New York don't frequently get called upon to respond to hurricanes. But when Hurricane Sandy smashed into the Mid-Atlantic and Northeastern coasts in late October 2012, the Coast Guardsmen stationed in these areas benefitted first-hand from the Coast Guard's ongoing efforts to recapitalize its fleet of surface, air and command and control assets. Tested to the limit, these operators performed outstanding service to the nation with new and enhanced capabilities that have been added to the fleet through the Acquisition Directorate's (CG-9) recapitalization projects.

Responsible for executing the Commandant's recapitalization strategy, CG-9 provides contracting, program management and support services across a more than \$30 billion investment portfolio. The results of these efforts include delivering new cutters, aircraft and mission systems to replace obsolete equipment, as well as upgrading existing platforms to help crews better carry out their missions.

### **MH-60T Jayhawks to the Rescue**

For example, the directorate has upgraded many of the Service's HH-60 Jayhawk helicopters to a new standard of modern avionics and flight instrumentation. With

dramatically improved reliability and mission performance, the upgraded MH-60Ts already have made a significant difference in the life-saving mission capability of Coast Guard aircrews. During Hurricane Sandy, these modernized aircraft were instrumental in carrying out search and rescue operations under the most challenging conditions, including the hoist to safety of 14 survivors from the stricken replica tall ship HMS Bounty.

As Hurricane Sandy got closer to landfall, the Bounty foundered off the North Carolina coast. Without power and taking on water, the captain signaled distress and ordered his crew to abandon ship. A Coast Guard HC-130 Hercules long range surveillance airplane located the wreck and helped to direct an MH-60T from Air Station Elizabeth City, N.C., to the scene.

Aboard helicopter CG6012, pilot Lt. Cmdr. Steve Cerveny had to fly low, below 300 feet, enduring high winds and drenching rain to rescue the Bounty's survivors. With a second MH-60T arriving on scene soon after, the two aircrews recovered the 14 survivors from 30-foot seas. The rescue is recounted in greater detail on the Coast Guard Compass blog.

“We went instrument flight rules [flying with low visibility and relying upon upgraded instrument displays for navigation] and having the [improved avionics] brought the pilot workload down,” Cerveny said. “Instead of having only altitude hold, we had the computer giving us airspeed, course and collective cues to back us up in a demanding night-time flight environment. The color weather radar is also a big improvement, as we were able to steer around any convective activity by overlaying the flight plan on the radar.”

As conditions worsened during the rescue, the aircraft's upgraded Flight Management System (FMS) computer made it possible for Cerveny and his flight crew to quickly and accurately determine the best return location, making sure that the helicopter, its crew and the rescued survivors made it back to shore safely.

“We were able to program these locations in the FMS with current winds to set a minimum fuel to leave the SAR scene,” he said. “Based on the distance offshore, it's critical not to make a mistake, and having this system helps ensure we don't do this.”

Having first entered service in the 1990s, the HH-60J's original avionics hardware is obsolete and becoming unsupportable due to a lack of production components and discontinued manufacturing sources. CG-9 is upgrading the Jayhawks with new avionics, communications, navigation equipment and flight instruments, under a project that converts them to MH-60Ts.

### **MH-65D Dolphins Get Ahead of the Storm**

As Sandy moved up the east coast, Air Station Atlantic City and its aircraft were at the ready. The base has 10 MH-65D Dolphin short range recovery helicopters, three of which

are on constant alert at the National Capital Region Alert Defense Facility, while seven are on call for other missions.

Before Sandy arrived, the station's helicopters helped conduct port assessments in the Northern Chesapeake Bay, Baltimore Harbor, Philadelphia and the Delaware Bay, and the shoreline from the Delmarva Peninsula through the Jersey Shore, as well as New York City Harbor and Long Island and New York/New Jersey Port Authority facilities. Their work helped Coast Guard stations in the storm's path prepare for the coming disaster and position assets for effective relief operations.

CG-9's H-65 conversion and sustainment projects include the improvement of avionics and sensor systems on these important aircraft, making them more effective at supporting search and rescue and evacuation missions from shore bases or aboard cutters at sea. As Sandy's eye passed over Atlantic City, the station's Dolphins got airborne, conducting a number of life-saving missions, according to Capt. Nicholas Bartolotta, Air Station Atlantic City commanding officer.

"We positioned an MH-65D in the New York City area (Teterboro), and the amazing crew hoisted many of the first victims of the storm, pulling people from flooded homes and MEDEVACing people who were without medicine and needed help," Bartolotta said. "We conducted some of the first photo flights of the devastated Jersey Shore, and many of the initial photos on television of the New York/New Jersey area were taken by the MH-65D crews. We were also conducting aids to navigation flights to assist with re-opening the ports of New York/New Jersey, Philadelphia and Baltimore."

The versatile H-65 has been in the Coast Guard's inventory since 1984. The Coast Guard is providing these aircraft with incremental upgrades, including digital flight instrument displays, GPS and inertial navigation systems, weather radar and other improvements. Since 2007, the entire fleet has been equipped with new engines that add 40 percent more power.

Bartolotta noted that the upgrades are well regarded by the pilots and crews who used them during the chaos of Sandy's first few hours.

"The MH-65D upgrades to our communications and direction-finding equipment were key in minimizing time on scene," Bartolotta said. "With multiple emergency location transmitters going off due to boats being thrown all over, we could quickly use our much improved direction-finding capabilities and assess whether it was just boats inland or potential actual distress."

The aircrafts' digital radios helped Dolphin aircrews stay in communication with sector leadership, even in areas where the high-site towers had been knocked down, Bartolotta added. The improved communications capability helped the joint federal and state first responder team share information throughout the rescue and relief operation. MH-65Ds also helped Coast Guard boat station crews spot new navigational hazards and shifting

sandbars from the air, as well as providing aerial photos of damage to Coast Guard facilities, allowing units to begin repairs as quickly as possible.

### **Afloat Command Center: Coast Guard Cutter Spencer**



Coast Guard Cutter Spencer conducts security

NEW YORK —Coast Guard Cutter Spencer, a 270-foot medium endurance cutter homeported at Boston, patrols New York Harbor, Nov. 6, 2012, as part of the Coast Guard's response to Hurricane Sandy. After the storm, Spencer functioned as a mobile command center for Coast Guard units involved in recovery efforts. U.S. Coast Guard photo by Petty Officer 2nd Class Jetta H. Disco.

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Another major contribution to the Sandy recovery effort came in the form of the refurbished Coast Guard Cutter Spencer, a 270-foot medium endurance cutter (WMEC) homeported at Boston.

Commissioned in 1986, the Spencer is one of several 210-foot and 270-foot WMECs that have undergone major systems improvements through the Acquisition Directorate's Mission Effectiveness Project (MEP), which is carried out at the Coast Guard Yard, Curtis Bay, Md. MEP replaces the cutters' obsolete equipment and improves their reliability, according to Cmdr. Geoff Gagnier, Spencer's Commanding Officer.

And Spencer needed to be ready to help the nation respond to the damage wrought by Sandy. After weathering 60-knot gusts at the pier with no damage or injuries, Spencer got underway the next day en route for New York Harbor, transiting through 29-foot seas and brutal winds. Once they arrived, it didn't take the crew long to see why they were there.

"There were no vessels moving outside the harbor other than Coast Guard Cutter Willow repairing a buoy," Gagnier said. "As we began our inbound transit, we could see that the lights were out on the western end of the Verrazano Narrows Bridge. Coney Island, to the northeast, was also dark. Once under the bridge, we started identifying uncharted objects

in the water. Our marine radios were eerily silent. Usually, the marine radio traffic in New York Harbor is relentless. That night, it was non-existent. ... Personally, it was difficult to reconcile what my eyes were seeing and what my mind expected to see based on previous nighttime transits. From the sea, New York Harbor resembled a ghost town.”

Once in the harbor, the Spencer’s crew found Lower Manhattan uncharacteristically dark and no traffic on the water. Governors Island and the Statue of Liberty also were blacked out, and Staten Island and the New Jersey shoreline suffered intermittent power outages, Gagnier said.

Later that day, First District Commander, Rear Adm. Dan Abel, boarded the Spencer to get a firsthand look at the storm’s aftermath. The First District coordinated the Coast Guard’s response to the storm, including engagement with federal, state and local government officials and the media.

With the arrival of the U.S. Navy in the area, Spencer was assigned as the primary liaison unit between the Coast Guard and the Amphibious Ready Group. By partnering with the Navy, the Spencer was able to facilitate communications between the First Coast Guard District, Coast Guard Atlantic Area, and Coast Guard Headquarters in Washington, D.C. This work resulted in Navy assistance in conducting hydrographic surveys, resupplying the Willow with food, addressing damage at Coast Guard Station Sandy Hook, and resolving various legal, tactical, and pier assessment issues.

Spencer’s crew also provided humanitarian assistance to local residents who had been impacted by the storm, including 260 blankets, towels, and child care supplies to a local Red Cross shelter.

Notably, U.S. Sen. Charles Schumer of New York remarked on how Spencer and its crew contributed to the Coast Guard’s relief effort, and the subsequent decision to re-open the Port of New York/New Jersey for commercial traffic.

The Coast Guard has completed MEP availabilities for all of the 210-foot WMECS and 12 of 19 270-foot cutters. The project also has finished upgrading the 110-foot Island-class patrol boats. Keeping these legacy cutters in service and equipping them with the tools necessary to perform critical Coast Guard operations is another example of the Acquisition Directorate’s contributions to real-world mission capability for the Coast Guard.

While the Service’s cutter, boat and aircrews are and remain ready for anything their nation calls upon them to do, the Coast Guard’s crucial recapitalization investments play a major role in making sure that the men and women on the front lines stay “semper paratus!”