



photo by Dr. Michael Izard-Carroll
 Damaged power lines along a road in Humacao, Puerto Rico show some of the damages in one of the hardest hit municipalities after Hurricane Maria. FEMA tasked USACE with the daunting task of restoring the devastated island's power grid.

NWO steps up providing relief, hope

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Not since October 2005 had a major hurricane (category 3 or higher) made landfall in the United States. That all changed on Aug. 26 when Hurricane Harvey struck the Texas gulf coast. The storm would make landfall three times.

Harvey first landed near Rockport, Texas, as a category 4 storm before heading back into Gulf of Mexico. Three hours later it would strike again, this time as a category 3 storm at Copano Bay, Texas. After returning to the gulf yet again, Harvey made its third landfall on Aug. 30 just west of Cameron, Louisiana, as a tropical storm.

Back in Omaha, the district's emergency operations center was busy ramping up to answer the much anticipated call for volunteers to deploy to provide disaster relief and recovery assistance. Under the direction of FEMA, the first wave of Omaha district employees deployed to aid in the overall USACE missions of providing reservoir operations, temporary emergency power, debris technical assistance, navigation restoration, temporary

housing and infrastructure assessments.

Unknowingly at the time, it was a scene that would play out several more times on a much grander before the year ended.

Harvey was followed by Hurricane Irma which tore its way across the U.S. Virgin Islands as a Category 5 storm on Sept. 6 before turning and setting its sights on Florida. The Florida Keys felt the wrath of Irma as it passed through the islands as a category 4 on Sept. 10, with the storm hitting the mainland just south of Naples, Florida, as a category 3 later the same day.

While Irma did not make landfall in Puerto Rico, just skimming the U.S. territory, it did leave more than one million people on the island without power, foreshadowing what was yet to come.

Two weeks after Irma hit, the U.S. Virgin Islands were blasted again on Sept.20, this time by category 5 Hurricane Maria that hit the island of St. Croix which had originally been spared from Irma's fury (St. Johns and St. Thomas suffered the wrath from Irma). Maria then bore down on Puerto Rico, first hitting the smaller island of Vieques, then



photo by Brooks Hubbard IV
 Temporary Roofing Mission Specialist Nicholas Franke (left), Mission Manager Peter Pettis (center) and Senior Quality Assurance Specialist Trudy Templeton, all from the U.S. Army Corps of Engineers Omaha District review final Quality Assurance inspection records at the Temporary Roofing office at St. Thomas.



courtesy photo
 A USACE volunteer assesses a damaged home before contractors install a temporary blue roof in the U.S. Virgin Islands.

hitting Puerto Rico itself, making landfall at Yabucaco, then cutting across the island. By the time Maria had returned to the water, the entire island of Puerto Rico was in the dark. The storm had wiped out the entire power grid. In addition, more than half of the island's population was left without drinking water.

Once again, Omaha district employees answered the call to come to the aid of their fellow countrymen. In addition to the missions that USACE supported following Hurricane Harvey, they were tasked with providing temporary blue roofs to help residents stay in their homes until repairs could be made, and the daunting task of restoring Puerto Rico's national power grid.

Getting roofs over residents' heads was a major priority. Zach Montreuil, a natural resources specialist with the Gavins Point Project deployed to the U.S. Virgin Islands to help with the Blue Roof Program. The totality of the devastation made getting the program up and running a daunting task.

"The biggest challenge was communication with the public following the disaster.

We were set up at fire stations, schools, and other public buildings signing people up for the Blue Roof Program, and it was difficult getting the word out right away," Montreuil said. "People didn't have access to Facebook, internet, TV, or radio because the communications were down and/or they didn't have electricity. So we wanted to help people but it was difficult to do right away, it got significantly better as communications were up and people had access to internet, phone, and word of mouth."

In addition to the lack of power, location turned out to be another major obstacle facing recovery volunteers. Unlike Florida and Texas where supplies could be driven in, materials needed for rebuilding Puerto Rico and the U.S. Virgin Islands has to be shipped or flown in.

"Due to being on an island sometimes supplies would take a while to arrive or be held up in customs which slowed down the process," said Office of Counsel's Melissa Head, who deployed to the U.S. Virgin Islands to work on the Blue Roof Program. "We tried to manage expectations of homeowners and also tried to work closely with the contractor and crews to train them on the proper way to install."

Just as hurricane relief and recovery efforts were getting into full swing, the call came into the Omaha emergency operations center – help was needed on the west coast with debris removal from the wildfires devastating California. Like the previous three times, Omaha district employees answered the call.

A total of 117 Omaha district employees volunteered to deploy to at least one of the disaster areas, many times living and working in austere conditions. More than three dozen employees volunteered for multiple deployments. Also, 25 of the district's team members took on providing reachback support. Between the four disasters Omaha District personnel deployed for 5,547 total days and provided reachback support for 1,883 days.

Those numbers will climb as recovery efforts continue.

Regardless of which mission they supported, deploying gave volunteers the opportunity to work with other USACE volunteers from all across the country, enhance their current skills, and in some instances develop new ones.

"My biggest challenge was not really understanding what I was stepping into," said Pete Pettis, a construction representative on the USSTRATCOM project on Offutt Air Force base. "I went over as the COR/RE (Contracting Officer's Representative/Resident Engineer). I overcame it by asking lot of questions to the previous RE and other staff members."

"While in California, I had the opportunity to work with very motivated and extremely skilled individuals who were dedicated to the debris mission," said Capt. Sara Yates, project engineer USSTRATCOM Resident Office. It was just a very rewarding experience overall, especially interacting with the home owners

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***-Zach Montreuil
 Blue Roof Program***

about their recovery."

Like Yates, seeing the relief on the faces of those they were helping is something that will stick with the other volunteers.

"They went from having everything taken from them by the hurricane, and then we would show up to start the process of getting a blue roof put on their home. It was very rewarding to see the joy in peoples' faces, that they were getting help," Montreuil recalled. "It rained about every day, so the thought of finally having a roof to be able to dry out - I can't imagine. It was very rewarding each day when we could see what the disaster did to these people and each day it got better, you could see hope coming back in their lives."

"When families were able to remain in their homes after a temporary roof was installed, seeing their faces light up and hearing them say thank you was so rewarding. Being able to help these wonderful people and this gorgeous island in the recovery, even on a small scale," Head added.