"Force of 50" Makes its Mark on Puerto Rico

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On September 20, 2017, Hurricane Maria slammed into the US Commonwealth of Puerto Rico, leaving devastation and despair, and such essentials as drinking water, food, shelter, and security in short supply. Most of the island's telecommunication systems were demolished, along with the electric power grid — which was already on shaky ground.

At the request of the American Red Cross, ARRL President Rick Roderick, K5UR, put out a call for radio amateurs willing to take on hardship duty for a Red Cross mission in Puerto Rico. More than 350 ham radio operators answered the call, and were screened for certain abilities and requirements, leading to the formation of the "Force of 50," a pool of recruits from which the Red Cross would draw to put boots on the ground in Puerto Rico.

A 22-member contingent of the Force of 50 embedded as American Red Cross (ARC) volunteers, in accord with a memorandum of understanding (MOU) between the ARC and ARRL. In an unprecedented move, the Federal Emergency Management Agency (FEMA), with which ARRL also has an MOU, agreed to transport ARRL Ham Aid gear to Puerto Rico. The League also sent a VHF repeater, handheld and mobile transceivers, and several 2 kW generators.

With the inventory of Ham Aid kits depleted, ARRL fronted the funds to purchase more. The ham radio volunteers were teamed up to work in pairs,



Following an unprecedented request from the American Red Cross, ARRL screened volunteers for a hardship mission on the hurricane-ravaged island.

and the Red Cross provided their expenses and the necessary training. ARRL Emergency Preparedness Manager Mike Corey, KI1U, joined the volunteers in Puerto Rico on October 6.

Hitting the Ground Running

Volunteers spent their first night in a church, sleeping on pews that had been pushed together. Their initial mission was to gather outbound health and welfare messages and put them into the Red Cross's Safe and Well System via *Winlink.* When the Red Cross realized that the overall need was much greater, the mission morphed to include communications support, especially with regard to ensuring communications for hospitals and recovery logistics.

In the interim, Puerto Rico hams had been active in the response effort. ARRL Section Manager Oscar Resto, KP4RF, and other volunteers staffed VHF and HF nets at the American Red Cross temporary headquarters, despite damage to their own homes.

Red Cross Headquarters net shifted to 24-hour operation, to be ready to assist in any emergency involving the already-crumbling Guajataca dam; residents in the downstream districts of Quebradillas, Isabela, and San Sebastián already had been told to leave. A ham volunteer was stationed in Quebradillas to provide emergency communication and to maintain contact between the power company, Autoridad de Energía Eléctrica (AEE), and its Monacillo control center. Superacueducto Alcantarillados, the water and sewer utility, asked for several radio amateurs to help in re-establishing water flow from Arecibo to San Juan.

Various Force of 50 volunteers were assigned to provide communication for engineers involved in repairing the island's power distribution centers. Four ham radio volunteers were positioned to accompany and provide daily VHF communication at Red Cross distribution centers.

Shortly after deploying, two team members penetrated to the westernmost end of the island to a Red Cross shelter in Mayagüez, providing the first communication link from that city to San Juan since Maria struck.

Puerto Rico Section Emergency Coordinator Juan Sepulveda, KP3CR, covered the Lares Medical Center and the hospital, and an Amateur Radio operator supported nearby Castañer hospital. Team members also gathered information on the condition of roads to pass along to the Red Cross.

An Amateur Radio station was installed and an operator embedded at the Puerto Rico Emergency Operations Center (PREOC), relaying information among the Red Cross, ARRL, FEMA, and the FEMA ESF-2 task force.

An HF station with *Winlink* capability and a VHF/UHF station were set up in the FEMA Joint Field Office (JFO). Volun-teers reported in from around the island with situation reports.

Hospitals Become Communication Focus

The Red Cross asked the Amateur Radio volunteers to establish VHF communication capability at hospitals throughout the island, to provide direct contact with the PREOC. A local amateur was recruited to handle communications at Centro Medico, the main hospital on the island.

"This happened just in time, because the Menonita (Mennonite) Hospital in Caguas had both generators fail," Force of 50 volunteer Valerie Hotzfeld, NV9L, said in a situation report. Juan Trujillo, NØPSF, coordinated with Dennis Perez, WP4Q, to transfer four critical patients to the Mennonite Hospital in Cayey.

Stressful Night

Jeremy Dougherty, NSØS, described one particularly stressful night at Culebra Hospital. Gasoline fumes ignited, seriously injuring a woman. A doctor at the hospital called Centro Medico on a satellite phone to coordinate transportation for the patient. Dougherty, a medic who works for the Kansas City (Missouri) Fire Department, stabilized the burn victim.

After helicopter transport to San Juan was arranged, Dougherty set about contacting the patient's family. He got on 40 meters, interrupting a pileup trying to work National Fire Prevention Week special event station N4F, being run by Kevin Young, KC7FPF, in Florida. Dougherty had Young contact the



Rafael Ortiz, W4RAO, and Joe Bassett, W1WCN, handle traffic and inquiries at K1M, set up as a clearing house at Red Cross Headquarters in San Juan.

woman's family in Connecticut, and credited Young's patience. "He definitely stepped up to the challenge of the unexpected emergency," Dougherty said.

Amateur Radio's Moment to Shine

The 22 "Force of 50" radio amateurs who deployed to Puerto Rico ended their mission in mid-October, after about

3 weeks on the ground that included an October 6 visit from Vice President Mike Pence. Valerie Hotzfeld said that the Red Cross felt the volunteers had exceeded all expectations, noting that they possessed a wide range of talents, from medical to mechanical. For example, Andy Anderson, KEØAYJ, set up a helicopter landing pad at Guajataca Dam.

"There was no task that they wouldn't tackle," ARRL CEO Tom Gallagher, NY2RF, said, also lauding "the generosity of these volunteers, who not only performed their roles as communicators, but also engaged the population with their many acts of personal kindness."

Upon his return to ARRL Headquarters in late October, ARRL Emergency Response Manager Mike Corey, KI1U, said that three things stood out to him







Gary Sessums, KC5QCN, installing a dipole antenna at the emergency operations center located at the Puerto Rico Convention Center.

during his 2 weeks on the ground in Puerto Rico. "First is the enormity of the disaster," he said. "Puerto Rico has a long road ahead in response and recovery. America has not seen a disaster of this scope in a long time, and it presents a very complex response scenario.

"Second, the dedication to response,

recovery, and rebuilding is at the heart of Puerto Rican residents, and most notably within the Puerto Rico Amateur Radio community, who were the very first of the Amateur Radio responders.

"Third is the dedication of the responders who came to Puerto Rico to help... I am proud, very proud of our group and their amazing work under unbelievable conditions. They represent the very best of the Amateur Radio Service."

ARRL President Roderick echoed this sentiment, saying, "The Amateur Radio community really came together in providing donations of equipment, funding, and personnel in response to the great need in Puerto Rico. The scale of these efforts and the response is making history. This has got to be one of Amateur Radio's greatest moments. Our sincere thanks go to all involved."