Puerto Rican emergency responders desperately needed a new communications system. Their older single-channel analog system operated on disparate frequencies and didn't allow for interoperability among different agencies. If a large incident arose, it would not be able to support a large number of users.

Government officials turned to Icom America Systems (IAS) for help. Partnering with A&G Communications, a San Juan, Puerto Rico-based dealer, IAS designed and built a new three-channel P25 radio system. User groups include the police, sheriff, public works department, and other municipal groups.

Installed in July, it is the first P25 system in Puerto Rico, covering several hundred square miles, including San Juan and several nearby towns.

The installation of the new P25 system aroused considerable excitement among Puerto Rican government agencies. Even the governor came to view the new system. “There was a lot on the line for Icom and A&G Communications,” says IAS’ Scott Bigger, who traveled to San Juan to assist A&G technicians in the installation and final optimization of the system.

During the planning stages several additional top-level agencies expressed interest in joining the P25 system. But they delayed making a decision until after the initial rollout so that they could first evaluate the system’s performance.

So far, all feedback has been positive, says Dick Varbero, Icom America Systems Coordinator. “And now the local fire department is seriously considering switching to the P25 system.”

Whereas the old system was comprised of a patchwork quilt of frequencies, the new system operates on a common frequency, allowing for interoperable communications among local and regional public safety organizations.

Two of the three channels are P25. The police and emergency management agencies use the two P25 channels. Public works uses the third, conventional analog channel.

The stand-alone, single-site system employs two of Icom’s new DRB-25 Digital-Analog repeaters and one FR 3000 analog repeater. Nearly 100 Icom portable and mobile radios are currently in use. The system offers backward compatibility and interoperability with other compliant systems. This flexibility means that agencies can continue to add additional P25 equipment as funding allows.

Before shipment, IAS assembled, tuned, aligned, and tested the turnkey system at its Bellevue, Wash., headquarters. It was then delivered to Puerto Rico for installation and final optimization. This method keeps costs low and makes set up at the site quicker and easier for technicians.

Technicians worked efficiently to complete the installation process in three days. They installed the system on the first day; the second day they tested the site. On the final day, technicians optimized the system.

IAS’ Bigger also trained technicians from A&G Communications on how to program and service the new equipment.

Another advantage of having highly skilled Icom system technicians on site is the ability to quickly diagnosis and resolve any problems that may arise during the installation process. In this case, the TX and RX antenna mounting configuration required a reduction of the output power and additional RX notch filtering.

“We offer the benefit of having experienced technicians on site so we can overcome any site challenges quickly,” says IAS’ Varbero.”