



TECH *b.e.a.t*

Dedicated to Reporting Developments in Technology for Law Enforcement, Corrections, and Forensic Sciences

Keeping Their Memory Safe

Inauguration Day 2005, the first since 9/11, will be filled with concerns for the U.S. Park Police (USPP), which takes the lead in ensuring security and safety for this and other Federal Government events in Washington, D.C. The department will call on dozens of law enforcement, fire, and emergency response agencies from up and down the East Coast for assistance—agencies that use a variety of radio systems, channels, and frequencies.

However, the ability to talk with different public safety agencies with disparate radio systems, termed “interoperability,” should be less of a concern on Inauguration Day because of lessons learned from the ceremonies for the dedication of the World War II Memorial during Memorial Day Weekend 2004.

Memorial Day Weekend 2004 was not just another holiday weekend in the Nation’s Capital. On this Memorial Day, government officials, dignitaries, and tens of thousands of ordinary Americans, many of them World War II veterans, gathered on the National Mall for the dedication of a memorial to those who served and died in World War II.

To ensure that the more than 30 law enforcement agencies and 600 officers involved in the event could communicate, USPP called on Capt. Eddie Reyes of the Alexandria Police Department in nearby northern Virginia. USPP contacted Reyes, who provides technical assistance for the National Institute of Justice’s (NIJ’s) CommTech (formerly AGILE) program, approximately 3 weeks before the dedication. According to Reyes, the timing of this contact led to the most valuable lesson learned.

“The biggest lesson we learned is that for future events on this scale, we need to allocate time. You need at least 2 months to plan something on this scale,” Reyes says. USPP heeded his concern when planning for Inauguration Day, making initial contact in October 2004.

Even though planning time was somewhat limited, Reyes used his experience establishing interoperability during National Police Week, held in the National Capital

Region each May, to pull the Memorial Day operation together. (National Police Week draws between 25,000 and 40,000 attendees each year, according to its official website, with major events taking place across the city and attendees staying at many hotels.) For help, he called on NIJ’s National Law Enforcement and Corrections Technology Center–Northeast (NLECTC–Northeast) in Rome, New York. Reyes and NLECTC–Northeast staff member Charles Stephenson drafted a letter to all participating agencies asking them about their radio systems and interoperability capabilities. The agencies’ replies were the basis for determining interfaces, an interoperability layout, and needed equipment.

WHAT IS COMMTECH?

Because communication can mean the difference between life and death, public safety agencies from different disciplines and different jurisdictions need to share information seamlessly—when and where it is needed. Unfortunately, police officers, firefighters, emergency medical personnel, and other public safety officials and responders often cannot depend on wireless radio communications in an emergency. This lack of interoperability hinders a coordinated response to natural disasters, catastrophic accidents, or crimes. It means police, firefighters, and emergency response personnel cannot always talk. And if they cannot talk, they cannot respond.

Interoperability is one of the research missions of the National Institute of Justice (NIJ) and its CommTech (formerly AGILE) program. CommTech is identifying, adopting, and developing interoperability solutions that include open architecture standards for voice, data, image, and video communication systems. These solutions will allow multiple parties to exchange

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Following the National Police Week model, Reyes and Stephenson incorporated three interoperability strategies into the World War II Memorial dedication plan to enable emergency communications:

1. **Distribute loaner radios from National Capital Region law enforcement agencies.** An officer using a loaner radio can communicate with all other officers who have similar radios, as well as the command post and others using the same channel. During the World War II Memorial dedication weekend, platoon leaders from each participating agency received radios that were tuned to a common channel and connected through a modular interface/interconnect system. This interface added monitoring capability and could provide a patch between four additional radio systems if needed.
2. **Capitalize on existing interoperability systems.** Many law enforcement agencies in the National Capital Region use 800 MHz radios, which can be programmed for compatibility with other agencies' 800 MHz systems.
3. **Establish interconnect switches.** Not all agencies use 800 MHz radios; many use UHF or VHF devices. Connecting these systems requires an intermediary switch like an ACU-1000 or similar system. (Such a switch provides direct connectivity between radio systems that operate at different frequency bands such as VHF, UHF, and 800 MHz.) Reyes and the USPP planning team called on the expertise of NLECTC-Northeast and NIJ personnel to help establish this connection.

On the Friday before Memorial Day, staff from NLECTC-Northeast, NIJ, and the Alexandria Police Department barricaded an entire block near the Franklin Delano Roosevelt Memorial to set up a communications command post. The team erected a 108-foot antenna mast loaned by the U.S. Marshals Service, deployed an 800 MHz portable repeater belonging to the Fairfax County (Virginia) Police Department, and tested the setup. (The repeater used a national interoperability channel, and all agencies using 800 MHz radios were instructed to preprogram them to this channel.) Testing indicated the repeater needed to be moved from its initial position, a low area near the water, to higher ground.

Early Saturday morning, team members met to make sure that all capabilities remained operational. Participating officers received their deployment assignments, and emergency medical services and fire department vehicles and command posts were stationed in the same block.

Stephenson trained the interconnect operator and was on call for technical assistance throughout the event. "We had to make a few adjustments to get the best audio quality, but on the whole, when you consider the

What is CommTech? (continued)

information on the spot—no matter where that "spot" is. They will let users exchange information among fixed facilities, mobile platforms, and even personal devices. In addition, CommTech looks for new technology solutions when existing technologies fall short. It also aims to raise awareness of interoperability issues through outreach programs so policymakers and public safety leaders can make informed and cost-effective decisions.

For more information about CommTech, visit www.agileprogram.org.

number of agencies involved, it went really well," he says.

The event went "really well" despite a glitch that, according to Reyes, led to a valuable lesson learned: "We never did a roll call. We told agencies what channel to use, but we never checked to see if they were using it. We will do a roll call for the inauguration." Reyes noted that one agency reported a case of heat exhaustion. "We were able to send emergency response out right away. So, as long as the agencies did tune in, they did indeed have interoperability capability."

Another lesson learned, Reyes says, involved distribution of the loaner radios. For Inauguration Day, the coordinating team is implementing a barcode/scanner checkout system that eliminates the paperwork formerly needed to check out each radio. During the World War II Memorial dedication, some radios were inadvertently checked out without paperwork, but all were returned.

"Anything that initially seems to be a problem, we can turn into a positive by saying, 'This is how we will do it better next time,'" Reyes adds.

Developing and deploying a mobile communications infrastructure like that required for the World War II Memorial dedication requires extensive teamwork. Sti-Co Industries (a provider of interoperable antenna systems), the Arlington County (Virginia) Police Department, the Metropolitan Washington Airports Authority Police Department, and the U.S. Department of Homeland Security, Immigration and Customs Enforcement played key collaborative roles. The Capital Wireless Integrated Network was used to log incidents called in by officers throughout the day and provide dedicated chatrooms for police, fire, and rescue personnel.

For more information regarding the interoperability initiative for the dedication of the World War II Memorial, contact Capt. Eddie Reyes, 703-838-6360, ext. 104, or Charles Stephenson, NLECTC-Northeast, 315-339-6184.

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