

Washington College Expands Coverage, Improves Security through Collaboration with Public Safety Agencies



“Budgets are always somewhat limited so we’ve learned to work smarter. The tools we’ve invested in, including the surveillance cameras, emergency broadcast system, the MOTOTRBO radios; all of this allows us to utilize resources to collaborate and maintain a secure environment on campus.”

- Jerry Roderick, director of public safety, Washington College

When ongoing campus expansion began to impact its analog two-way radio communications system, Washington College’s Campus Public Safety team began to look for a better solution. To enhance campus safety, and at the same time provide the Athletics Department and the Buildings and Grounds crew with tools that improve safety and increase productivity, the college deployed a MOTOTRBO™ digital two-way radio system. Officers now have seamless coverage throughout campus buildings and enhanced collaboration with the city’s 911 center and police and fire rescue squads; Athletics Department has radio communications from the campus to the waterfront where water sports events are held; and Buildings and Grounds uses the radios to increase productivity.

Situation: Campus doubles square footage of buildings, creates RF challenges for analog radios

Founded in 1782 under the patronage of George Washington, Washington College is located near the scenic Chester River on Maryland’s eastern shore and today is one of the country’s leading liberal arts institutions.

In the past 25 years, Washington College has gone through continuous expansion of campus buildings, eventually doubling the square footage of interior space on the 180 acre campus. The larger, more sophisticated structures were equipped with new electronic and mechanical features, more lighting and deeper basements. The expansion, however, created a challenge for the campus public safety officers, whose existing analog two-way radios were unable to penetrate the new buildings due to structural and electronic interference. While the officers carried cell phones as backup, neither option provided a completely reliable communication solution.

“We understood that there were certain places on campus where we wouldn’t have communications,” says Jerry Roderick, director of public safety, Washington College. “That created a safety concern for all of us because once the officer is out of radio contact, their own security is at risk as well.”

The campus public safety team had also set up a mutual aid channel on the analog radio system to enable direct contact and collaboration with the city’s public safety first responders and the 911 dispatch center. However, due to the increased noise and interference on that channel, dispatchers occasionally turned the volume down, inadvertently running the risk of missing a call.

Situation

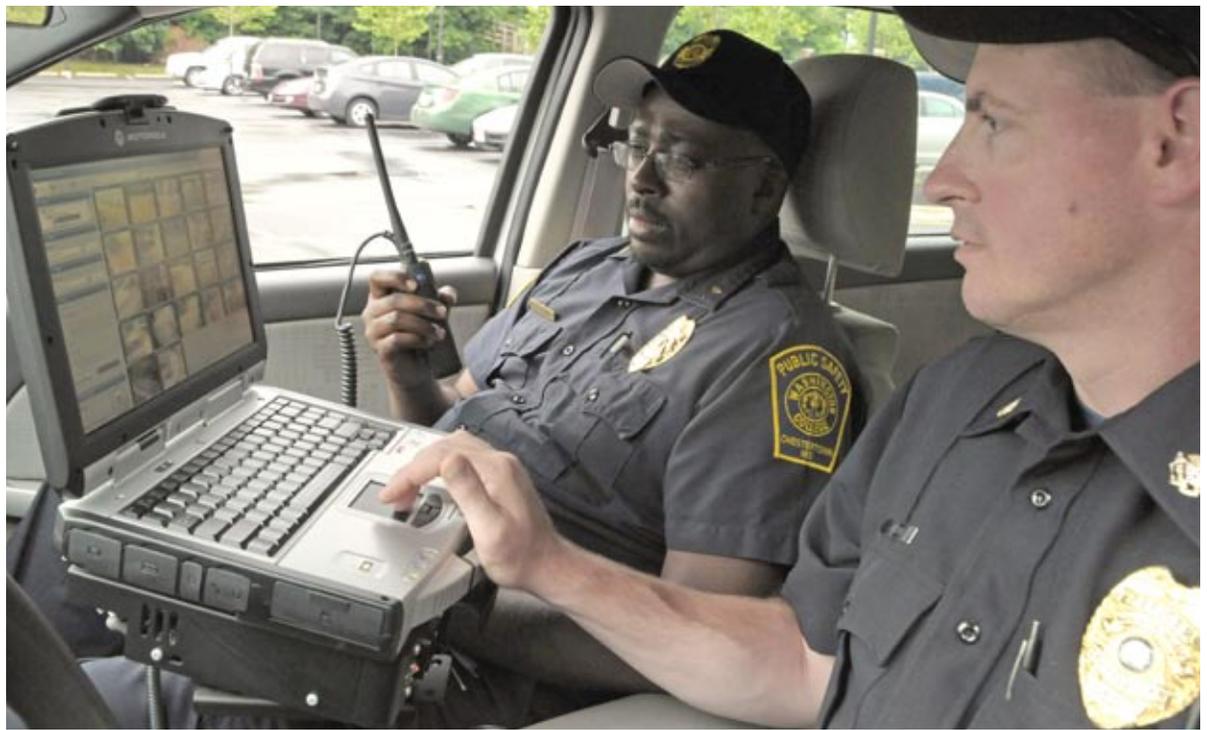
- Increase coverage to eliminate gaps on campus
- Extend range to reach outside campus
- Collaborate with external resources for enhanced security

Solution

- MOTOTRBO XPR™ 6500 portable radios
- MOTOTRBO XPR™ 6350 portable radios
- MOTOTRBO control station (XPR™ 4550 mobile radios, desktop microphone, speakers, power supply with battery backup)

Results

- Coverage now available throughout buildings and basements
- Range increased to reach waterfront a mile away
- Shared channel helps campus security work closely with city police and fire
- Enhanced safety and improved productivity for Athletics Department
- Increased productivity and response for Buildings and Grounds



MOTOTRBO Meets FCC Narrowbanding Compliance

To increase spectrum efficiency and accommodate more users, the FCC is mandating 25 kHz licensees to operate using 12.5 kHz efficiency by January 1, 2013. MOTOTRBO digital radios offers seamless path to 12.5 kHz, allowing customers to transition at their own pace. For more information, go to www.motorola.com/narrowbanding.

Solution: MOTOTRBO digital radios increase coverage, extend reach

Roderick and staff from Washington College's Emergency Operations Center contacted Jeff Vadakin from Magnum Electronics, a local Motorola channel partner, to discuss options. Vadakin demonstrated a MOTOTRBO digital two-way radio system to confirm that the radios could increase coverage throughout the buildings and into the basements. The radios also extended the range beyond the campus to the river over a mile away, where the college's sailing and rowing teams practiced and held events.

The radios provided a host of features, including enhanced call signaling, privacy-scrambling, and Transmit Interrupt, which would enable campus public safety officers and dispatch to prioritize critical communication over lower priority voice traffic in the event of an emergency.

Recognizing the clear advantages of digital technology to his campus public safety force, Roderick encouraged the use of MOTOTRBO radios for other campus departments as well, inviting both Building and Grounds and the Athletics Department to come onboard the digital migration.

The college deployed two MOTOTRBO repeaters atop an existing campus cell tower to provide the extended coverage. MOTOTRBO control stations were deployed for dispatch in the security office, as well as in the Building and Grounds office, allowing B&G to dispatch their own work crews.

Results

Several months ago, a campus public safety officer patrolling the grounds noticed suspicious activity through the open window of a residence hall. As he stood outside observing the situation, he used his MOTOTRBO radio to discretely text another officer, providing data and exact location of the activity. The responding officer was able to quietly enter the building, all the while continuing to silently receive information from the officer outside the window. When the time was right, the responding officer entered the room and took the individual into custody.

"Text messaging allows officers to send situational messages that they do not want to broadcast publicly," says Roderick. "It's just one of the features of the MOTOTRBO radios that my officers like very much."

Campus Public Safety officers extend reach, improve coverage and enable collaboration

For the Washington College Campus Public Safety team, the MOTOTRBO radios have demonstrated their value in a number of ways, including:

- **Greater coverage, extended range:** MOTOTRBO has virtually eliminated coverage gaps throughout the campus, allowing campus public safety officers to communicate whether they are outside on the grounds, inside the buildings, down in the basements or staying in touch with the college's rowing and sailing teams on the Chester River, about a mile off campus.
- **Collaboration with external resources:** "MOTOTRBO gives us a shared channel with the local hospital, police and fire services, and the 911 center," says Roderick. "This partnership is vital to increasing campus safety and security."

“MOTOTRBO proves that it’s not just about adding manpower,” says Roderick. “It’s about using the right communications tools that help us extend our existing resources.”

– Jerry Roderick, director of public safety, Washington College

- **Faster response:** Access to situational awareness increases officer safety and helps speed response time. Motorola ML910 ruggedized laptops mounted in the squad cars help officers collect data from 28 wireless cameras located around the campus. Officers are then able to use the MOTOTRBO radios to quickly relay critical information from the scene directly to the police and fire department or 911 center.
- **Emergency alerts and assessing the situation:** The emergency button and Caller ID let officers know immediately who needs help. “Once that button is activated, we can listen in to what’s going on around that person, helping us to identify where they are and how to respond,” says Roderick.
- **Working smarter:** “Budgets are always somewhat limited so we’ve learned to work smarter,” says Roderick. “The tools we’ve invested in, including surveillance cameras, the MOTOTRBO radios and an emergency broadcast system, allow us to utilize resources that help us maintain a secure environment on campus.”



Motorola MOTOTRBO XPR Digital Radios

Buildings and Grounds work crews increase productivity

For the Building and Grounds crews, MOTOTRBO radios help improve work processes and provide opportunities for greater efficiency, including:

- **Speed response to requests:** Supervisors can easily coordinate repair and maintenance activities throughout the campus, speeding response to work requests. MOTOTRBO’s integrated data capability also enables applications such as automated work order tickets.
- **Eliminates missed messages:** Because the work crew’s cell phones were often unable to transmit or receive from inside the buildings, the MOTOTRBO radios have virtually eliminated the opportunity for missed messages and delayed repairs.
- **Reduced operational costs:** MOTOTRBO two-way radios incur no monthly fee, allowing the Buildings and Grounds department to significantly reduce their monthly cell phone bills, decreasing operational costs.
- **Increased work efficiency:** MOTOTRBO has greater range than analog radios. Workers who must run errands off campus can stay in constant contact, often across town.
- **Greater safety:** The Buildings and Grounds’ MOTOTRBO radios were also programmed with the shared public safety channel and the emergency button, allowing them direct contact to the campus public safety team and the city 911 Center.



Accessories tailored to your needs

From IMPRES™ Smart Energy System batteries and chargers to Motorola Original® mobile and portable speaker microphones and carry accessories, Motorola offers the entire package that lets you take full advantage of your MOTOTRBO communications solution.



About Channel Partner

Magnum Electronics is an Authorized Motorola Sales and Service Partner, Manufacturer's Rep, Federal Sales Specialist, and Motorola Warranty Service Center. Magnum Electronics specializes in mission-critical communications systems for commercial, government, and industrial applications. The company earned Motorola's 2006, 2007, 2008 and 2009 MOTOSTAR Excellence Award for their business results, customer focus, and employee training.

Athletics Department

MOTOTRBO radios are perfect for the Athletics Department as well, allowing staff to communicate whether on the water or at a campus athletic event.

- **Communications out to the river:** "We have a waterfront about a mile away from the campus for the rowing and sailing teams," says Roderick. "The coaches liked the radios because they could quickly contact us or the city 911 center in the event of an emergency, even when they are off-campus."
- **Submersible:** MOTOTRBO portable radios comply with the IP57 industry standard for submersibility in water. This means that if a coach accidentally drops the radio into the water, the watertight design enables that radio to withstand submersion for up to 30 minutes.
- **Weather Alerts:** A dedicated, receive-only channel programmed on the Athletics Department radios allow staff to receive the NOAA weather forecast. "Whether they're on the river, on the lacrosse field or at any other outdoor location, they can check weather alerts if the sky is looking bad," says Vadakin.

Better communications help Washington College become a community resource

Washington College collaborates closely with the local emergency planning committee and can be called upon at any time – such as the recent H1N1 crisis when they served as a center for mass immunizations. The college also provided emergency shelter a few years ago when they took in 400 employees evacuated from a nearby factory. "We need to communicate directly with the fire and rescue people who might be coming onto the campus in an emergency," says Roderick. "It would have been a lot easier during those two events if we'd had the MOTOTRBO system to coordinate with the other responding agencies."

With the new MOTOTRBO system, Washington College has another tool in its belt that allows Campus Public Safety to collaborate more easily with each other as well as with external resources; Athletics Department can maintain communications between the waterfront and the campus; and Buildings & Grounds can increase the efficiency of its crew.

"MOTOTRBO proves that it's not just about adding manpower," says Roderick. "It's about using the right communications tools that help us extend our existing resources."

**mototrbo.motorola.com, motorola.com/education
1-800-367-2346**



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Motorola, Inc. 1301 E. Algonquin Road Schaumburg, Illinois, 60196, U.S.A.

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