

# Interoperability Bulletin

Science and Technology

# June 2008 Edition

#### 2008 Industry Roundtable Addresses Critical Interoperability Challenges

Information sharing, geographic information systems, compliance assessment programs, and vocoder testing topped the agendas of attendees at the 2008 Office for Interoperability and Compatibility (OIC) Industry Roundtable. Emergency responders, industry representatives, and government officials gathered on June 2, 2008, to collaboratively address critical interoperable communications technology challenges. This year's Industry Roundtable was held in conjunction with the Department of Homeland Security (DHS) Science and Technology (S&T) Directorate's Stakeholders Conference East in Washington, DC.

## OIC Demonstrates Connection Between Radio System and Laptops, Smart Phones

Emergency responders are steps closer to having the capacity to communicate across previously disparate wireless radio and broadband communication systems. The OIC Radio Over Wireless Broadband (ROW-B) project recently demonstrated a common connection point between these systems. The June 3, 2008, technology demonstration is a milestone for emergency responders, who are increasingly using traditional, Land Mobile Radio (LMR) systems and wireless broadband to communicate. Wireless broadband service is often supplied by a commercial cellular service provider. Because radio and broadband systems serve specific

and different needs, they were not designed to communicate with each other.



Through the ROW-B project, OIC is working with emergency response agencies and an industry partner to research how to connect existing LMR systems with advanced wireless broadband technologies. This summer, OIC is testing the ROW-B technology through a pilot with local government.

#### **OIC Testifies Before Congress on Capitol Police Radio Upgrades**

On June 18, 2008, OIC testified before the Committee on House Administration's Subcommittee on Capitol



Security regarding a plan by the Capitol Police to procure a new interoperable radio system. In his testimony, Command, Control and Interoperability Division Director Dr. David Boyd highlighted several areas that need to be considered by any emergency response agency pursuing the procurement of a new communications system. Dr. Boyd also discussed the importance of radio interoperability to the Capitol area and offered advice to the Subcommittee and the Capitol Police on the new system. Other witnesses testifying included Chief Phillip Morse, United States Capitol Police; Commander James Crane, Special Operations Division, Metropolitan Police Department, in place of Chief Cathy

Lanier; and Steve Souder, Department of Public Safety, Fairfax County, Virginia. The testimony is available at http://cha.house.gov/view hearing.aspx?r=33.



#### **Vocoder Testing Report a Mile Marker for Digital Radio Transmission Quality**

Published in June 2008, the *Intelligibility of Selected Radio Systems in the Presence of Fireground Noise: Test Plan and Results* report represents an important mile marker in efforts to improve digital radio transmissions in high-noise fire response operations. Some firefighters have reported unintelligible audio while

using portable, two-way digital radios. This is due to interference from breathing apparatus devices and common background noises such as sirens, vehicles, power tools, and helicopters. OIC is working with the International Association of Fire Chiefs' Digital Problem Working Group (DPWG), the Institute for Telecommunication Sciences (ITS), and manufacturers to identify the causes of and potential solutions for this critical communications problem. The June report details the results of first phase tests conducted by ITS and DPWG, which measured the intelligibility of communication systems operating in high acoustic noise environments. The results indicate that in some environments, analog radios performed better than digital radios, and in other environments radios performed well. Fire agencies should consider the first phase of vocoder testing results when preparing to purchase and deploy any new communications system. The *Intelligibility of Selected Radio Systems in the Presence of Fireground Noise: Test Plan and Results* report is available at http://www.its.bldrdoc.gov/pub/ntia-rpt/08-453/.

#### Multi-Band Radio Demonstration for Emergency Responders a Success

On June 18, 2008, OIC demonstrated the multi-band radio (MBR) technology for emergency responders—hailing from the National Capitol Region, Massachusetts, and Vermont—at the Technology for First Responders Demonstration Day, held in Washington, DC. Sponsored by S&T TechSolutions, the event provided practitioners an opportunity to brief congressional members on communications issues, and provided OIC an opportunity to engage with end users on technologies it is developing to improve emergency response operations. The MBR prototype is the first-ever portable radio prototype that allows emergency responders to communicate with partner agencies—regardless of the radio band on which they operate. Additional S&T technologies showcased included the Handheld LED-based Incapacitator, the FireGround Compass, and a Next-Generation Breathing Apparatus.

## SAFECOM Practitioner Groups Convene to Discuss Interoperability Progress and Initiatives

The SAFECOM program Executive Committee (EC) and Emergency Response Council (ERC) recently convened in Rosslyn, Virginia, to discuss future program activities and interoperability planning. Held June 3-4, 2008, the series of meetings provided EC and ERC members with a forum to discuss a wide spectrum of interoperability initiatives, e.g., the *National Emergency Communications Plan*; the administration and criteria of the *Interoperable Emergency Communications Grant Program*; the *Statewide Communications Interoperability Plans*; the distribution of a video message on interoperability to local elected officials; and plain language endorsements. Comprised of emergency response leaders, local elected officials, and public safety association representatives, the SAFECOM EC and ERC provide the Department of Homeland Security's interoperability offices—OIC and the Office of Emergency Communications—with end user requirements and field expertise. The next EC and ERC meetings will be held December 3-4, 2008, in Orlando, Florida.



#### **Save the Dates**

- The Second Annual New York Law Enforcement Expo will be held July 10-11, 2008, in New York, New York. This conference will provide attendees with the opportunity to network with the Nation's leading experts and industry providers in the law enforcement and tactical operations fields. Additional event information is available at <a href="http://www.palawexpo.com/nynewfiles/attndnfo.html">http://www.palawexpo.com/nynewfiles/attndnfo.html</a>.
- The 74th Annual Association for Public Safety Communications Officials (APCO) Conference and Exposition will be held August 3-7, 2008, in Kansas City, Missouri. This conference draws over 2,500 emergency response decision-makers worldwide—including practitioners, industry representatives, and policy makers. APCO provides attendees with an opportunity to discuss current emergency response challenges, and to collaboratively address the development of potential solutions. Additional event information is available at <a href="http://www.apco2008.org/">http://www.apco2008.org/</a>.
- The International Association of Fire Chiefs Fire-Rescue International Conference will be held August 15-16, 2008, in Denver, Colorado. The Conference will draw approximately 10,000 fire and emergency service decision makers nationwide. Attendees have the opportunity to participate in this comprehensive conference to network with industry leaders, stay informed on the latest news and trends from the experts in the fire service, and discover the newest innovations in products and services for the industry. Additional event information is available at <a href="http://www.iafc.org">http://www.iafc.org</a>.

The Department of Homeland Security established the Office for Interoperability and Compatibility (OIC) in 2004 to strengthen and integrate interoperability and compatibility efforts in order to improve local, tribal, state, and Federal emergency preparedness and response. Managed by the Science and Technology Directorate's Command, Control and Interoperability Division, OIC is committed to developing technologies and tools—methodologies, templates, models, and educational materials—that effectively meet the critical needs of emergency responders in the field.

The Interoperability Bulletin provides updates about OIC-related initiatives, accomplishments, and opportunities. This Bulletin is distributed to stakeholders monthly.

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