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IDAS™ and SWAT: The Right Combination for Mission Critical Mutual Aid

Westshore Enforcement Bureau (WEB) is a mutual aid SWAT team made up of highly trained police officers and paramedics from several small communities outside of Cleveland, Ohio. In a training exercise last year, they discovered that officer radio transmissions from their analog system were showing up on scanners and broadcast on the Internet.

"Imagine being in an active shooter situation and the bad guys can monitor what SWAT is saying," said Bob Close, VP of Cleveland Communications.

That's when Pat Fiorilli, WEB SWAT Unit Commander, contacted John Williams, Icom RF Marketing Representative, and Williams referred the project to Close.

When most citizens think of a police Special Weapons and Tactics (SWAT) team, they think of guns, helmets, and body armor. But ask any SWAT team member what's the most important piece of equipment they have, they'll tell you it's their radio communication system.

"Cleveland Communications is known for custom solutions and going out of our way to meet a customer's needs," said Close. "There can't be a more important need than mission critical communications for SWAT, public safety, and medical emergencies."



"We put together an Icom IDAS™ digital/analog system and showed the WEB SWAT team what happens on a scanner when you transmit digital," he said. "There was just a low level hum because of the voice scrambler. You couldn't hear a word. The team was so impressed they placed an order for repeaters, 4 digital IC-F6061D mobiles for their SWAT vehicles, and 25 digital IC-F4161D portables."

The various community police and fire departments, state police, and National Guard have different radio systems so the SWAT communications van carries an Incident Commanders' Radio Interface™ (ICRI) unit. It provides radio cross-band (VHF, UHF, 800MHz), cross platform (digital/analog, trunked/talk-around, AM/FM) capability for any possible mutual aid operations with any agency. The IDAS system integrates seamlessly with the ICRI.

The benefit of the Icom IDAS system and digital radios, is that they can talk and listen to both digital and analog radios from multiple departments that supply SWAT personnel, a unique feature that sets Icom apart.

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IDAS™ and **SWAT**: The Right Continued from page 1 Combination

"That way the departments that have old analog radios can communicate seamlessly in mixed mode with the Icom digital radios." said Close.

"We used a portable waterproof Pelican™ case to house the Icom IC-FR6000 repeater," he said. "They carry it in one of their vans for on-site communication and can move it from place to place on foot or traveling in a vehicle. That's a unique way to use a repeater but we set it up to make it work."

They modified the case to plug the repeater into the vehicle systems for power and roof antennas, or it can run self-contained.

"WEB SWAT has been testing their radios during training exercises and we continue to tweak the custom system for optimum performance." said Close. "The great thing about Icom and IDAS, it's an integrated system and easy to configure, program, install, and train users."

The team is so happy with the system and the ruggedness of the radios that they've added 2-3 additional mobiles and 25 more portables in the 2010 budget.

In addition, Close said, "The total IDAS solution, all-in with radios included, is about one-third less than other products.



That's helping a lot with tight government budgets right now. Customers can do more for less."

"Cleveland Communication is continuing to attend SWAT training exercises and provide engineering support as they roll out the system," said Close. "Lives depend on it."

Icom America Inc.

2380 116th Ave NE Bellevue, WA 98004 Phone: (425) 454-8155 Fax: (425) 454-1509

Customer Service: (425) 454-7619

Icom America Systems

Phone: (425) 586-6363 Fax: (425) 586-6321 ias@icomamerica.com

For People Who Make Smart Choices



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Icom F4021 Portables Provide District-Wide Communications for Parkway Schools

When the school year kicked off this fall for Parkway School District in St. Louis County, Mo., its back-to-school purchases included 647 new Icom F4021 two-way radios for the district's 30 elementary, middle and high schools.

One of the largest school districts in the state, Parkway School District needed an efficient way to coordinate daily operations across its various schools and facilities and better prepare for emergency and disaster situations.

Prior to the district-wide radio acquisition this year, the district's individual schools purchased their own radios and managed deployment and implementation independently. But according to Mark Pollock of Radio Comm, a local dealer in Washington, MO., who provided the radios to the district, this piece meal approach simply wasn't working.

"It was a logistics, economic and maintenance nightmare," Pollock reports. "Some schools were using 20-year-old radios and others operated without radios entirely," he adds.

Looking to shore-up its communications capabilities, the

district issued a request for proposal (RFP) outlining its expectations and specs for the system. The communications director overseeing the purchase, a former member of the military whose specialty was designing radio systems, "had a

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definite opinion of what the district needed," Pollock says.

One of those expectations was coverage for every school and facility in the district. The director wanted a simple



system, with a handful of frequencies and dedicated channels. The radios needed to be reliable and simple to use. He also wanted the radios to be capable of displaying individual ID and feature an emergency function button.

Pollock submitted a proposal to the district based on the Icom F4021 portable. The F3021/F4021 series portable offers a compact - yet rugged - lightweight radio with great signaling choices, a display and a large capacity Li-ion battery.

"The district considered radios from other vendors, but in the end went with lcom," Pollock says. After submitting the RFP, the district demoed radios at two different high schools.

The communications director was a big fan of a competing radio manufacturer's products, but after seeing the Icom radio in action, he was convinced that Icom's F4021 could provide the reliable communications he was looking for at an economical price.

Today, Parkway School District's radio system includes four location-specific channels for administrative use and three channels dedicated to the district

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Accessory of the Month

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Icom F4021 Portables Provide District-Wide Communications

UC-FR5000 IDAS™

Trunking/Network Controller



crisis team. It includes only a handful of frequencies: four radio frequencies are reserved for elementary and secondary schools, and one block is for high schools. The system is designed to prevent cross-talk and interference problems among the different user groups.

The transition to the new F4021 radios was handled by the district's telecommunications center. Radio Comm provided

instruction to district personnel before the district disbursed the radios. Initially, some users required additional training, but overall the transition went smoothly.

"I couldn't be happier. For the price it's hard to beat," Pollock says. And the district couldn't be happier, either. "Feedback has been very positive," he reports.

CF-FR5000IP Repeater Link Card



UC-FR5000 IDAS trunking/network controller with the CF-FR5000 IP repeater link card provides the ability to interface to an IP network for the FR5000 series in an IDAS conventional system.

Interlink up to 16 IDAS repeaters with each other. An IDAS terminal radio user can communicate with other IDAS terminal radio users belonging to the interlinked repeater sites and/or a virtual dispatch station (RC-FS10) on the network. All of the IDAS communication features such as selective call, group call and status message can be used over the IDAS conventional IP network system.

Benefits:

- Communication link for distant locations
- In-building and Intra-building solutions
- Remote base station over IP network
- Receiver voting operation
- Cross-band repeater

Best Wishes for Your Holidays

Icom would like to thank you for all of your business in 2009. Best wishes for your holidays and to a happy and successful 2010!

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Federal Communications Commission 445 12th St., S.W. Washington, D.C. 20554

News Media Information 202 / 418-0500 Internet: http://www.fcc.gov TTY: 1-888-835-5322

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LICENSEES, FREQUENCY COORDINATORS, AND EQUIPMENT MANUFACTURERS REMINDED OF NARROWBAND MIGRATION DEADLINES IN THE 150-174 MHz AND 421-512 MHz BANDS

This *Public Notice* reminds interested parties of the Commission's deadlines for private land mobile radio services in the 150-174 MHz and 421-512 MHz bands to migrate to narrowband (12.5 kHz or narrower) technology. The Commission directed that a *Public Notice* be issued by December 31, 2009 reminding licensees and frequency coordinators of the approaching deadlines. This *Public Notice* also provides additional information regarding the transition to narrowbanding technology.

Key Deadlines

Licensees and *frequency coordinators* should be aware of the following deadlines:

- (1) beginning January 1, 2011,³ the Commission will no longer accept applications for
- -new wideband 25 kHz (*i.e.*, operating with only one voice path per 25 kHz of spectrum) operations, and
- -modification of existing wideband 25 kHz stations that expands the authorized interference contour (19 dBu VHF, 21 dBu UHF); and
- (2) by January 1, 2013, Industrial/Business and Public Safety Radio Pool licensees must
 - operate on 12.5 kHz (11.25 kHz occupied bandwidth) or narrower channels, or
- employ a technology that achieves the narrowband equivalent of one channel per 12.5 kHz of channel bandwidth (voice) or 4800 bits per second per 6.25 kHz (data).

¹ See Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended; Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies, Second Report and Order and Second Further Notice of Proposed Rulemaking, WT Docket No. 99-87, RM-9332, 18 FCC Rcd 3034 (2003); Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended; Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies, Third Memorandum Opinion and Order, Third Further Notice of Proposed Rule Making and Order, WT Docket No. 99-87, RM-9332, 19 FCC Rcd 25045 (2004) (Narrowbanding Third Memorandum Opinion and Order); see also 47 C.F.R. §§ 90.203(j), 90.209(b).

² See Narrowbanding Third Memorandum Opinion and Order, 19 FCC Rcd at 25057 ¶ 26.

³ A petition seeking a stay of the January 1, 2011 deadlines, filed by the National Public Safety Telecommunications Council (NPSTC) on September 29, 2009, is pending. *See* Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Seek Comment on National Public Safety Telecommunications Council Petition for Stay of Interim Narrowband Implementation Dates, *Public Notice*, WT Docket No. 99-87, DA 09-2364 (WTB/PSHSB rel. Nov. 2, 2009).

Equipment manufacturers should be aware that, beginning **January 1, 2011**, the manufacture, importation, or certification of any 150-174 MHz or 421-512 MHz band equipment capable of operating with only one voice path per 25 kHz of spectrum will be prohibited; and applications for equipment certification must specify 6.25 kHz capability.⁴

Additional Information

How should licensees notify the Commission that they are in compliance with the January 1, 2013 deadline to migrate to narrowband or narrowband-equivalent technology?

The answer to this question depends on how and when the station came into compliance.

Licensees of stations that already satisfy the narrowbanding requirements because their authorized bandwidth does not exceed 12.5 kHz do not need to take any action to notify the Commission that the station has met the narrowbanding deadline.

Licensees of stations that currently are authorized to operate with a bandwidth exceeding 12.5 kHz that are transitioning to 12.5 kHz or narrower operation must file a modification application to either add a narrowband emission designator or change the wideband emission designator to a narrowband emission designator. The licensee will not need to take any additional action to notify the Commission that the station has met the narrowbanding deadline. Adding or changing an emission designator for an existing frequency does not trigger a new construction requirement, so the licensee will not need to file a new construction notification.

Note: Many stations are or will be authorized to operate on their assigned frequencies with multiple authorized bandwidths, including both wideband 25 kHz emissions and 12.5 kHz or narrower emissions. It is not necessary for licensees of such stations to delete the wideband 25 kHz emission designator in order to demonstrate compliance with the January 1, 2013 deadline. Instead, absent information to the contrary, stations that were authorized to operate with both wideband and narrowband emissions prior to January 1, 2013 will initially be presumed to be operating only with narrowband emissions (i.e., that the wideband mode has been disabled) after January 1, 2013. (All equipment certified since 1997 has been required to have a 12.5 kHz operational mode. Licensees should check with their radio equipment vendor to determine how to ensure that the equipment is operating in the 12.5 kHz mode.) The Commission also will have discretion to inquire of licensees to verify that they are operating in compliance with the Commission's rules.

Licensees of stations that currently are authorized to operate with a bandwidth exceeding 12.5 kHz that have complied or will comply with the narrowbanding deadline by adopting narrowband-equivalent equipment will be required to certify compliance with the deadline. This is necessary because it will not always be apparent from the license's technical parameters whether a 25 kHz station is a non-compliant wideband station or a compliant narrowband-equivalent station. We plan to implement this

⁴ These 2011 deadlines applicable to manufacturers also are subject of the NPSTC petition for stay. The 6.25 kHz requirement does not apply to hand-held transmitters with an output power of two watts or less. *See* 47 C.F.R. § 90.203(j)(4).

⁵ Currently, the Commission's rules require frequency coordination for a modification application that proposes to reduce the authorized bandwidth on the licensed center frequencies, *see* 47 C.F.R. § 90.175, but the Commission has sought comment on exempting such applications from this requirement. *See* Amendment of Part 90 of the Commission's Rules, *Notice of Proposed Rulemaking and Order*, WP Docket No. 07-100, 22 FCC Rcd 9595, 9596-97 ¶ 3 (2007).

certification requirement by revising a future version of the relevant application form for new, renewed, and modified station licenses to require licensees subject to the narrowbanding mandate to indicate whether or not the requested operations comply with the narrowbanding requirements. The Commission also will have discretion to inquire of licensees regarding existing licenses for which no such certification is received because the license was not renewed or modified before January 1, 2013.

Will the Commission take any other action to remind licensees of the upcoming narrowbanding deadlines?

Yes. In addition to this *Public Notice* and the measures discussed above, the Commission will in the near future begin placing a special condition on all new, renewed, and modified licenses for stations in the radio services and frequencies subject to the narrowbanding mandate to remind licensees of the January 1, 2013 deadline. The special condition will be removed from the license at some point after the licensee notifies the Commission that the station is in compliance with the narrowbanding deadline, as discussed above.

May a station that does not meet the January 1, 2013 narrowbanding deadline operate after that date on a secondary basis?

No. As of January 1, 2013, the Commission's rules will prohibit Industrial/Business and Public Safety Radio Pool licensees in the 150-174 MHz and 421-512 MHz bands from operating with wideband channels (unless their equipment meets the narrowband efficiency standard), even if the license still lists a wideband emission designator. Operation in violation of the Commission's rules may subject licensees to enforcement action, including admonishments, monetary forfeitures, and/or license revocation, as appropriate.

Can previously certified multimode equipment be manufactured or imported after January 1, 2011?

Yes, under certain circumstances. The equipment certification for previously certified multimode equipment containing a wideband 25 kHz mode will continue to be valid, and such equipment may continue to be manufactured and imported, only if the modes of operation are enabled primarily through software rather than firmware or hardware, and users are not provided with the programming software necessary to activate the wideband 25 kHz mode.

For further information, licensees and frequency coordinators may contact Mr. Melvin Spann of the Wireless Telecommunications Bureau, Mobility Division, (202) 418-1333, Melvin.Spann@fcc.gov, or Mr. Zenji Nakazawa of the Public Safety and Homeland Security Bureau, Policy Division, (202) 418-7949, Zenji.Nakazawa@fcc.gov; and equipment manufacturers may contact Mr. Andy Leimer of the Office of Engineering and Technology, (301) 362-3049, Andrew.Leimer@fcc.gov.