News From Your IMSA Frequency Coordination Office
By Alfred J. Mello, Director of IMSA Frequency Coordination

Nextel Accepts FCC Interference Resolution Plan for 800 MHz


Tim Donahue, President and CEO of Nextel, said in a letter to FCC Chairman Michael Powell: “More than three years ago, Nextel Communications charted a course with the leaders of our nation’s public safety organizations to bring an end to the problem of interference between the radio operations of wireless carriers and first responders in the 800 MHz band. Today, Nextel stands shoulder to shoulder with public safety and the Federal Communications Commission and accepts the responsibilities, obligations, license modifications, and conditions specified in the FCC’s Report and Order in WT Docket 02-55, “Improving Public Safety Communications in the 800 MHz band.”

Chairman Powell called the agreement a “major milestone” and “a very important day”. “As I said last summer, the Commission took a bold action in the interest of homeland security, because lives depended on it, and our police and firefighters deserve nothing less. This has, indeed, been the most difficult, complex, and challenging issue I have faced in seven years at the Commission.” Powell went on to say “Nextel made a choice in the best interests of its shareholders and in the best interest of the American people. I applaud Nextel for exercising well its custodianship of the public spectrum and for its leadership in advancing a solution to this difficult problem.”

The FCC has already appointed a transition administrator who will oversee the technical and financial process that will relocate many public safety 800 MHz users within the band so that their operating frequencies will not be adjacent to those of commercial wireless services providers. The effort will take time but should eliminate the interference issues that have rendered many systems inoperable and endangered public servants by preventing clear communications during emergency operations.

FCC issues Report & Order on Narrowbanding Below 512 MHz

The FCC has issued a third memorandum Opinion and Order addressing eighteen petitions for reconsideration of the rules it adopted last year regarding the migration of land mobile radio systems to narrowband (12.5 kHz) technology. The Third MO & O of WT Docket No. 99-87, Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, and RM-9332 Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies is available on the IMSA Web site at http://www.imsasafety.org/wireless/FCC-04-292A1.pdf.

The major decisions in the Third MO&O are as follows:

For Public Safety Radio Pool licensees operating Public Land Mobile Radio (PLMR) services in the 150-174 MHz and 421-512 MHz bands, the FCC affirmed the Second Report and Order’s January 1, 2013 deadline for migration to 12.5 kHz technology, or 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) if the bandwidth for transmissions specified in the modification application is greater than 12.5 kHz.

The Commission also revised the interim dates established in the Second Report and Order as follows:

Applications for new operations using 25 kHz channels will be accepted until January 1, 2011. After January 1, 2011, applications for new operations using a bandwidth greater than 12.5 kHz will be accepted only to the extent that the equipment meets the spectrum efficiency standard of one channel per 12.5 kHz of channel bandwidth (voice) or 4800 bits per second per 6.25 kHz (data).

Applications for modification of operations that expand the authorized contour of an existing station using 25 kHz channels will be accepted until January 1, 2011. After January 1, 2011, applications for modification of operations that expand the authorized contour of an existing station will be accepted only to the extent that the equipment meets the spectrum efficiency standard of one channel per 12.5 kHz of channel bandwidth (voice) or 4800 bits per second per 6.25 kHz (data) if the bandwidth for transmissions specified in the modification application is greater than 12.5 kHz.

Manufacture and importation of any 150-174 MHz and 421-512 MHz band equipment operating on a channel bandwidth up to 25 kHz will be permitted until January 1, 2011. After January 1, 2011, manufacture and importation of any 150-174 MHz and 421-512 MHz band equipment operating on a channel bandwidth greater than 12.5 kHz will be accepted only to the extent that the equipment meets the spectrum efficiency standard of one channel per 12.5 kHz of channel bandwidth (voice) or 4800 bits per second per 6.25 kHz (data).

The FCC also revised its Rules to permit applications for certification of equipment received on or after January 1, 2005 operating with a 25 kHz bandwidth, to the extent that

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the equipment meets the spectrum efficiency standard of one channel per 6.25 kHz of channel bandwidth (voice) or 4800 bits per second per 6.25 kHz (data).

The Commission exempted Part 90 paging-only frequencies from the narrowingbanding requirements.

Licensees operating in the Federal Government bands 150.05-150.8 MHz, 162.0125-173.2 MHz, and 173.4-174 MHz, must wait for a decision in another proceeding, ET Docket No. 04-243, which will address whether different narrowingbanding requirements are needed to account for the Federal Government’s own narrowingbanding plans in those bands.

What does this mean to you?

If your agency currently operates a wideband (25 kHz) VHF (150 – 170 MHz) or UHF (421 – 512 MHz) radio communications system you should make note of these changes in your

planning and expansion.

On or before January 1, 2013 your entire system must be converted to narrowingband emissions (12.5 kHz). This means that the bandwidth your signal occupies must be one half of what it is today.

If you are planning to construct a new wideband system, add new stations to your existing wideband system or expand the coverage area of your existing system you must file your license application before January 1, 2011.

Importation or manufacture of wideband radio equipment will not be allowed after January 1, 2011.

Paging only channels will not be affected by the order. This applies to designated paging channels and does not mean that a channel you may use for alert paging, such as commonly used by fire departments to alert call firefighters, are exempt. Such systems must also operate in a narrowingband mode by the 2013.

Alan Caldwell Stepping Down as IAFC Government Relations Director

There’s a change at the helm of the International Association of Fire Chief’s (IAFC) Government Relations

Department. Alan Caldwell, who has managed the department for more than eight years, is stepping down as its director. He will remain with the IAFC and is taking on a new role as senior advisor to the department with national-preparedness and first-responder issues.

IAFC Executive Director Garry Briese said “As director, Alan Caldwell deepened, broadened and solidified our reputation and presence on the Hill and with the administration. Now, working from a different perspective, he’ll continue to help develop and guide the IAFC’s efforts.”

In his new role, Caldwell will focus on wireless radio communications and lend his expertise on other issues. Prior to joining the IAFC, Caldwell spent 34 years with RJR Nabisco, 20 as its director of federal government affairs. He is also a retired volunteer fire chief from Fairfax County (Va.) Fire & Rescue.

Alan is a friend and supporter of IMSA and public safety communications. I have worked with him for several years on a myriad of issues affecting public safety communications and I am pleased that he will still be a part of the IMSA/IAFC communications team.

Higher Rated SPDs Boost Protection of Traffic Signals . . .

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Bryan Cole PhD Candidate, NCE, is Manager – Low Voltage Products at Control Concepts/Liebert, a division of Emerson Electric focusing on the EDCO brand of surge protection. He has been involved with the R&D of one-port and two-port surge protection devices, electromagnetic interference (EMI) filters, and harmonic filters for fourteen years, and is a member of the IEEE’s Power Engineering, Engineering Management, EMC, and Product Safety Societies.

Bill Feldman writes often on electrical topics.

Since 1974, EDCO has developed some of the most advanced technology in filtering and surge suppression products including series filters, AC and communication surge protective devices. In 1997 EDCO was acquired by Control Concepts, a wholly owned subsidiary of the Liebert Corporation, a division of Emerson Electric Company. Today, Control Concepts/EDCO is an integral part of the Emerson Network Power group, giving their customers not only the benefit of a single-source power quality manufacturer, but also cross-company access to Emerson’s global infrastructure. For further information: 800-648-4076, 352-732-3029 www.edcosurge.com.

2004 Edition of the Standard Highway Signs Book Available Online

The 2004 Edition of the Standard Highway Signs book, English and Metric versions, is now online on the MUTCD site, http://mutcd.fhwa.dot.gov. The SHS book is the companion document to the MUTCD and contains layout details for designing signs. It also contains some frequently-used designs that are not found in the MUTCD.

The Standard Highway Signs book is in PDF form, and is presently online as individual pages, accessed through the Table of Contents. Clicking on an item in the contents will take you to that page of the book. In early 2005 the book will be available as assembled chapters, similar to the previous edition. This will make downloading of the books easier, for those who wish to save or print a copy for themselves.