ScannerDigest Newsletter

ISSUE 49 JUL-AUG-SEP 2009

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RADIO SHACK Introduces the PRO-2006 in 1991

Alan Cohen KB3QLE of Bensalem PA, sends us an image captured from the 1991Radio Shack catalog depicting the state-of-the-art scanning radio, the PRO-2006. This was the successor to the very popular PRO-2004. (Remember they once printed catalogs back in the day.)

Introduced over 17 years ago, the PRO-2006 was considered the heart of any scanner enthusiast's monitoring station. Priced at $399.95 it was on everyone's wish-list.

We thank Alan Cohen for sharing such a nostalgic image.

Stay on top of stuff.

Always be in the know with this digital desktop scanner. The PRO-197 stores up to 1,800 frequencies in main memory and features 21 virtual scanner (V-Scanner) folders. It lets you search for nearby frequency transmissions and automatically jump to a found transmission. Plus, it lets you hear storm reports and more before they are broadcast on TV or radio.

- Store up to 1,800 frequencies
- Has 21 V-scanner memory for a total capacity to store over 39,000 objects
- 3 function buttons under the display can change the purpose, on screen text help is available
- Features S.A.M.E. (Specific Area Message Encoding) reception for user-set localized alerts by county
- Trunks all 3 popular system types

Emergency Radio generates its own power

Here's a way to still get news and radio programming even when the power fails and your batteries run flat

The Grundig/Eton FR-250 Emergency Crank Radio can run off regular power, normal batteries, its own rechargeable batteries, and - if all else fails - you turn the handle to generate and store some power then listen to the radio that way.

With AM, FM, and short wave bands, this is a great radio for any type of disaster situation, as well as for regular use too.

Just ask Hurricane Katrina survivors, or the many other people who've had to endure an extended power outage - even in this most civilized world we enjoy, basic services such as electricity can sometimes fail.

If you're camping in the woods away from AC electricity, you'll again be away from power sources. Here's a clever

radio that can use AC power when available, plus, when away from mains power, it has built in rechargeable batteries, normal (single use) batteries for if/when the rechargeable batteries are used up, and a hand crank to manually recharge its rechargeable batteries. Four different power sources!
You can also use this radio to recharge your cell phone. The radio even has a built in flashlight, and a rather gimmicky emergency siren, too!

What You Get
The FR-250 radio is branded as an Etón radio in the United States, but is actually manufactured by the German company Grundig, and sold as Grundig in other countries. What a remarkably affected name Etón is, whereas Grundig is a well known and well respected name. The marketers have made a puzzling choice in discarding the established brand for this new name and we'll continue to refer to it as Grundig.

Inside the box is the radio itself, a set of NiMH rechargeable batteries, a set of adapters to use when charging your cell phone, a manual with 12 pages of English information, and a nylon protective carry case. The radio is fairly small and lightweight. It measures 6" x 6" x 1¾" and weighs just under 1¼ lbs.

It has a one year warranty (the company has a US office in Palo Alto) and they also offer phone and web support. A test call to their phone support got me quickly through to a pleasant person with no nasty phone menus or long waits on hold, and my questions were answered helpfully and completely.

Not included is an AC adapter or regular batteries. There's nothing special about the AC adapter it uses and you can buy one at Radio Shack or elsewhere for about $10 - you should take the radio with you when going to Radio Shack so you can check the charger plug correctly fits the radio's socket. Or you can simply order one from Magellan's - they have a lovely one which works on all voltages around the world for $15.

The radio can optionally use three regular AA batteries as well as its other power sources, and you'd probably be well advised to keep some AA's in the radio 'just in case'. The Grundig FR250 sells for $49.85 from Magellan's.

Using the Radio
The radio is simple to use. You turn it on by moving the slide switch to your preferred power source, then choosing either the AM, FM, or SW band.

Tuning is by way of a knob on the side of the radio, and there's a smaller 'fine tuning' knob inset inside the main tuning knob. This vernier type knob rotates more quickly, making it easier to get the radio exactly tuned to the center of a signal.

The radio has an analog tuning circuit and regular dial and pointer rather than digital tuning and digital frequency display. As seems to be the case with most other analog tuner dials, the 2" dial display isn't very accurate - for example, an FM station at 98.1 MHz actually appears on the dial as if it were at about 99.2 MHz.

Surprising, it was much more accurate for showing AM stations, with stations all across the dial appearing almost exactly where they should on the scale.

The radio was very good at picking up weak stations, particularly in the AM band, at times doing as well or better than using the default settings on a professional grade radio receiver I also have. This is of course important - if you're somewhere remote, or if local radio stations have also lost power, you want to have a radio than can pull in weak signals from further away stations.

The nature of radio wave propagation is such that FM radio signals are very much range limited, no matter what sort of radio receiver you're using, but AM (and shortwave) signals have much greater theoretical range, and better radio receivers can bring in many more stations than inferior ones.

The radio has seven shortwave bands spanning frequencies between 5.85 MHz and 15.75 MHz (the 16, 19, 22, 25, 31, 41 and 49 meter bands). Shortwave radio reception is always a bit of an unknown, and while it can be great fun if you're an enthusiast, searching through the different bands for interesting stations, an average person wanting to use this radio variously for entertainment or (local) emergency news won't reliably find anything helpful.

The AM part of the radio uses a built in aerial. This has some directional properties, and so when searching for weak signals, it is a good idea to first of all work your way through the dial with the radio in one position, and then to rotate the radio 90° and try again. If you find a weak radio signal, then try rotating the radio up to 180° to see if you can get better signal.

The FM and SW (shortwave) parts of the radio use an external telescoping aerial. There is no ability to add an external aerial, but in typical use, there'd be little need or opportunity to add an external aerial, so this is not an important omission.

It does make a big difference to extend the telescoping aerial, and moving it and the radio around a bit can further enhance the signal strength. Be careful not to touch the aerial however, or else you'll reduce its effectiveness when searching for weak signals.

The small speaker gives acceptably good sound quality. There is also a standard stereo headphone jack on the back, and if you want to get maximum battery life, it would be a good idea to plug a high impedance and sensitive set

of headphones into this plug and use the headphones (or earpiece) rather than regular speaker.
Note that although the jack is for stereo or mono headphones, the radio does not output stereo FM, just AM.

Light and Siren
There is a LED light on the front of the radio. A switch allows you to choose between no light, a white light, or a flashing red light.

The white light has two bright LEDs and is similarly bright to our little Micro Light when powered by the NiMH rechargeable batteries, and appreciably brighter when powered by the higher voltage AA batteries. The flashing red light, with a single red LED, is more a nuisance than anything else.

There is also an electronic siren that makes a rapid warble tone through the speaker if switched on. This siren is loud enough to be annoying if you're right next to the radio, but way too quiet to be useful as any sort of long range alarm. Perhaps if you were trapped in a burning or collapsed building with your radio beside you (as unlikely as this sounds!) then you could alternate between calling for help and turning the siren on. Or perhaps if you were in danger of losing consciousness, you could turn the siren on to help searchers find you, but other than those rather limited applications, it seems to have little other good purpose.

Cell Phone Recharger
In a manner similar to the Sidewinder, the Eton Emergency Radio can also be used to recharge your cell phone.

Five cell phone adapters are included for modern Siemens, many Nokias, modern Motorola phones, many Samsung and LG phones, and most Sony Ericsson phones (identical adapters to the ones we offer with our emergency phone rechargers). These come with an 18" connecting cord to run from the radio to the cell phone. Note that you can only recharge your cell phone when the radio is either connected to AC or being powered by you cranking the generator handle. The radio won't simply transfer power from the built in NiMH rechargeable batteries or from the three AA cells - the voltage from these two sources is not sufficiently high as to promote current transfer from the radio to the phone.

The concept of an emergency phone recharger that requires AC power is a bit counter-intuitive, although it could be helpful if you've lost the charger. And if you're away from mains power, while the crank handle charging will work, we generally prefer our small Clipper Gear recharger that takes power from four AAA's and transfers that into your phone quickly and effortlessly.

However, if you find yourself with no more AAA batteries, there's no doubt that the Grundig's recharger will be extremely welcome.

Power Management Issues
The radio uses very little power to operate, and so can extract long life from either its Nickel Metal Hydride (NiMH) rechargeable batteries or from normal AA cells.

Eton/Grundig claim their rechargeable batteries will give about 6 - 8 hours of playing time from a full charge, and a set of AA cells will last about 35 hours.

Testing suggests the 6 - 8 hour life claimed by Grundig is very conservative. I've had the radio running for seven hours on a partially charged set of batteries, and with the light on as well.

When the NiMH rechargeable batteries are flat, you can recharge them either using an AC adapter or by turning the crank handle. To charge them via the crank generator, you spin the handle, in either direction, at about two turns per second, until you get sick of turning. Grundig estimates that 90 secs to 2 minutes of cranking will store enough power for the radio to play 45 - 60 minutes, depending on the speed of your cranking and the volume level you're playing back at.

Testing confirmed this type of relationship between charging and playing back (ie about 30 minutes of playing per minute of cranking). (1.15pm - with 45 secs) Turning the crank uses an appreciable amount of energy, but isn't impossibly difficult and when one only needs to do this for a couple of minutes at a time it is no problem. The amount of playing time is of course influenced by the volume level - the louder you play the radio, the shorter the radio life. The light also uses up power, but not very much because it is created by high efficiency low power LEDs.

The NiMH batteries will need to occasionally be 'conditioned' so they don't develop a 'memory' effect caused by partial charging and discharging. This is done by completely flattening the batteries, then fully recharging them, then flattening/recharging a second time.
NiMH batteries also slowly self-discharge, meaning that if you store the radio, after a month or two what were fully charged batteries to start with will be only half or quarter charged. For this reason, we like to keep a set of AA batteries in our radio as well, so that any time, we can simply turn the radio on and know we'll immediately have good power without needing to do some cranking first. The AA batteries are higher voltage than the rechargeable batteries (4.5V instead of 3.6V). This has little effect on the radio receiver, but does make the light shine more brightly when turned on.

Both the light and siren intelligently choose the 'best' power supply, preferring the AA batteries to the NiMH batteries.

You probably should invest the few extra dollars needed to get an AC adapter for the radio. Magellan's sell a lovely

one which will work on all different voltages, all around the world, for $15.

Summary

The Grundig FR250 retails for $50 (or a few pennies less through Magellan's). If you consider that for this price you're getting the radio, including the capabilities also of a Sidewinder recharger (value $25) and a Micro Light (value $5) then it is clear you're getting a lot for your $50.
The radio works well, and the ability to use it with four different power sources truly makes it totally flexible and useful for any type of scenario, with or without AC power and with or without fresh batteries.
Great to include in your at-home emergency kit, and useful also to take with you when traveling. Recommended.

Ready
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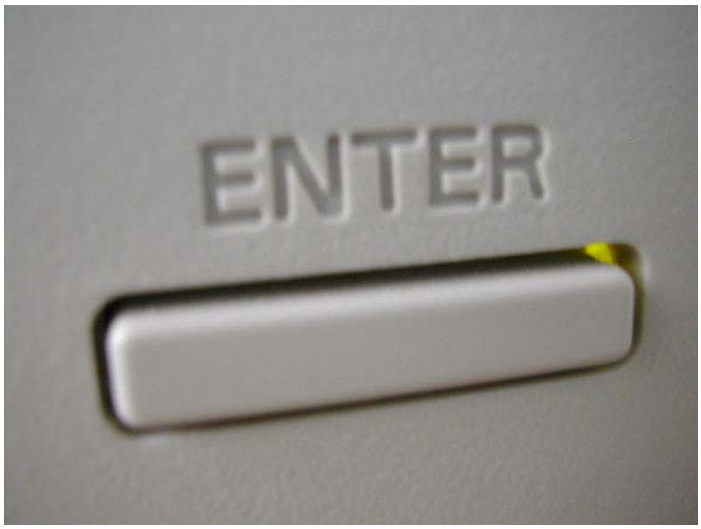
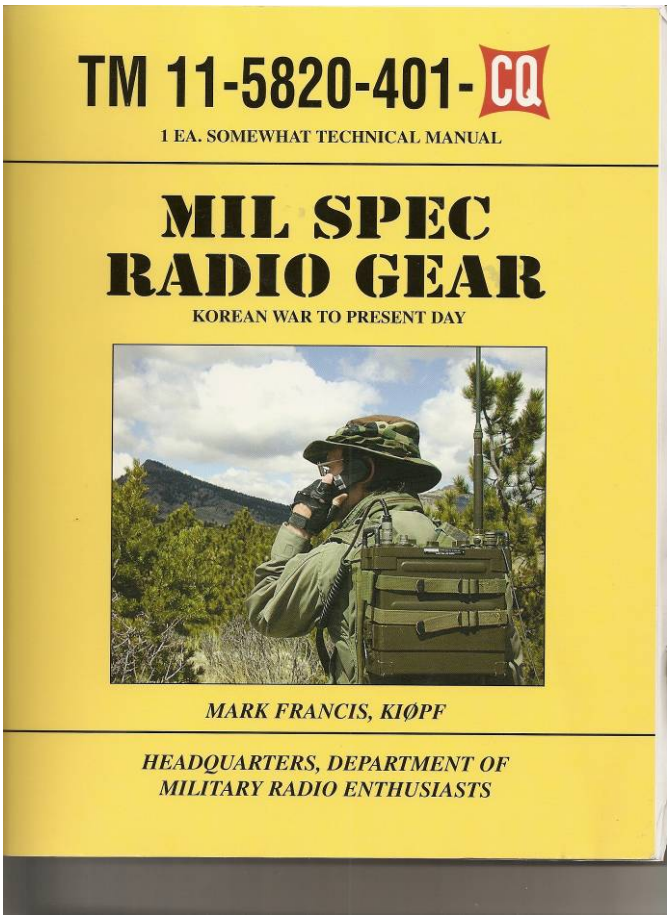
An fantastic on-line guide for the preparation of winter storms and extreme cold conditions. Provides an Up-to-date information on state, county and local municipalities resources. Publications are available for order or download.

Back Issues of the Scanner Digest Newsletter are available for free by clicking on “Enter”.



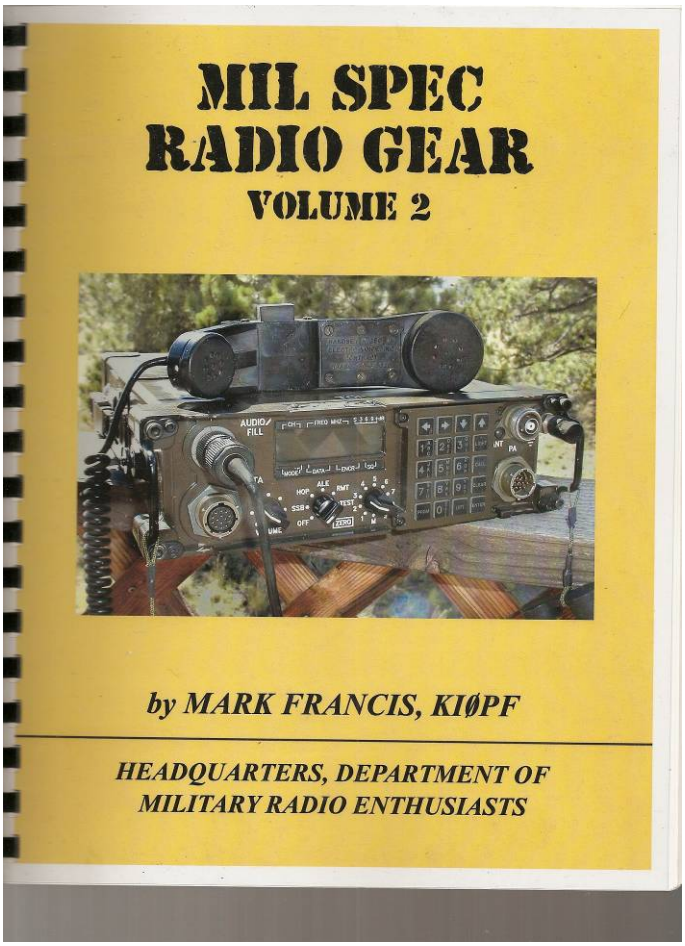
Mil Spec Radio Gear Volumes I, II

Reviewed by: Craig Leventhal N3TPM



As a radio hobbyist for many years, I have had the opportunity to restore and operate a number of vintage military surplus radios. In doing so I discovered that the biggest challenge was finding information about these old sets. Which microphone is used? What types of batteries are required? Which antennas will work? These are all questions that for the most part went unanswered. During the immediate post WWII years on up through the 1970s, there were several “Surplus Conversion” handbooks and numerous articles in amateur radio publications.

These tended to be narrowly focused on a few specific types of equipment such as the ARC-5 series. Fast forward several decades and a similarly frustrated collector, Mark Francis, KI0PF, decides to rectify this situation by compiling and writing a volume entitled “MIL SPEC RADIO GEAR” The book has now been expanded into its second volume with coverage of European made communications sets and additional equipment.



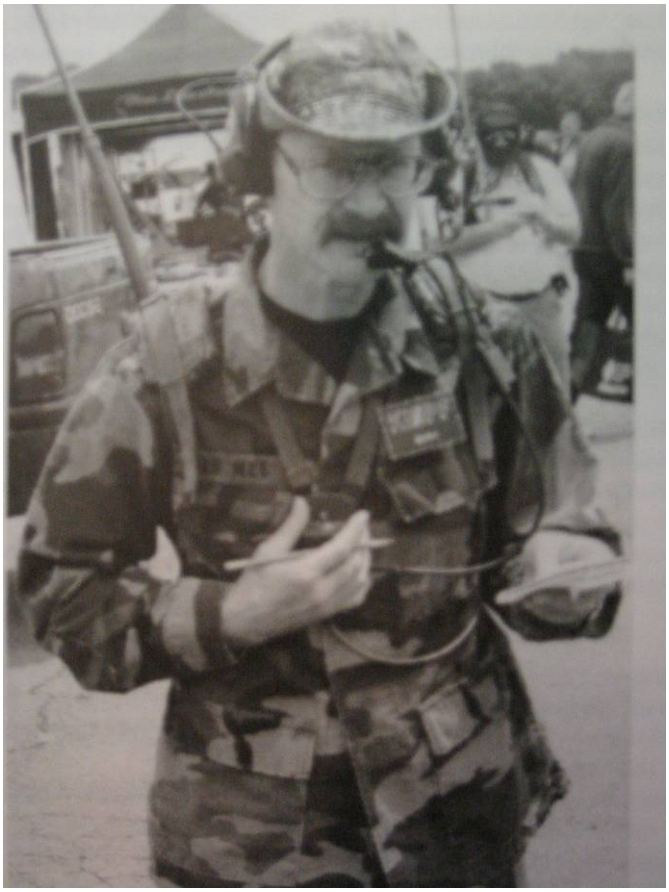
The author really did his homework, and it shows throughout both volumes. The radios are examined as individual units, and as part of larger communications systems. The author goes on to look at the accessories as well, including microphones, speakers, handsets, and antennas, in an effort to give the reader a better understanding of what will be required to get this equipment operational. The author himself has spent a considerable amount of time working on these radios. He offers tips, tricks, and pitfalls to be avoided, based on his own experiences. In some instances, when the correct accessories were not available, or were too cumbersome for civilian use, the equipment was modified to accommodate more commonly available accessories. This is the case with the German made SEM-52. The author provides clear, concise, detailed photographs, drawings, schematics as well as text for replacing the original audio connector with the NATO standard U-183 connector. This modification allows the use of new family, NATO standard audio accessories which are much easier to find.

The author covers a wide range of gear including a few pieces from the WWII era. He offers several solutions for the problems of finding sources of power for the older tube-type radios, by using modern battery and power supply techniques.

When a radio is not currently part of his personal collection, the author draws on a large cache of fellow enthusiasts to share their experiences. In a few instances, the author has borrowed equipment in order to familiarize himself with its operation.

The author also provides detailed information that will allow the reader to “home brew” some accessory items such as field expedient antennas, audio and computer interface cables.

The author is a member of the HF Pack set (http://hfpack.com) group, whose members use back pack carried (pack set) radios to operate “pedestrian mobile” on several HF bands in voice, digital and ale modes.



Mark KI0PF, putting all the research and experience into practice.

Throughout both volumes the author sprinkles in a little humor and an occasional rant, all of which make this technical subject matter easier to read.

And finally he provides a list of possible sources for equipment, parts, connectors and accessories as well as manuals for mil-surplus gear.

I highly recommend that both volumes be added to your reference library, even if you are not a military radio collector.

Volume I is available from CQ Communications, in Hicksville, NY. (800-853-9797) Volume II can be had directly from the author, Mark Francis KI0PF. His e-mail address is: PAL350@yahoo.com He will even sign your copy if you ask nicely. Mark has written several other books of interest on different topics, so you should ask him about these when you contact him.

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In this issue **Loren Fields** (MAINE COLUMN) posts laws that will effect motorists in Maine regarding the their "Distracted Driver Law". Will it impact mobile scanner users?

Pennsylvania cell phone/texting news: The House Transportation Committee approved a ban on text messaging on Nov. 10, 2009. The Senate approved its own texting ban during the summer. Enforcement of Philadelphia's new ban on handheld cell phones and text messaging has begun.

Current Pennsylvania prohibitions:
No statewide limits on cell phone use. Some local ordinances address cell phones and driving. Driving while using a handheld cell phone or text messaging banned in Philadelphia effective on December 1, 2009.

New laws in NY. No exclusion for Ham radio or HT's. Don't use one while driving in NY.

Rich K2UPS provides us with some updated information regarding laws that may prohibit use of portable amateur gear while driving in a motor vehicle. As we know it is a fine line by law enforcement to determine whether or not amateur radio or scanner gear falls within the definition of "portable electronic devices".

The actual New York State law reads as follows:

S 1225-D USE OF PORTABLE ELECTRONIC DEVICES

1. EXCEPT AS OTHERWISE PROVIDED IN THIS SECTION, NO PERSON SHALL OPERATE A MOTOR VEHICLE WHILE USING ANY PORTABLE ELECTRONIC DEVICE WHILE SUCH VEHICLE IS IN MOTION.

2. FOR THE PURPOSES OF THIS SECTION, THE FOLLOWING TERMS SHALL HAVE THE FOLLOWING MEANINGS:

(A) "PORTABLE ELECTRONIC DEVICE" SHALL MEAN ANY HAND-HELD MOBILE TELE-PHONE, AS DEFINED BY SUB-DIVISION ONE OF SECTION TWELVE HUNDRED TWENTY-FIVE-C OF THIS ARTICLE, PERSONAL DIGITAL ASSISTANT (PDA), HANDHELD DEVICE WITH MOBILE DATA ACCESS, LAPTOP COMPUTER, PAGER, BROAD-BAND PERSONAL COMMUNICATION DEVICE, TWO-WAY MESSAGING DEVICE, ELECTRONIC GAME, OR PORTABLE COMPUTING DEVICE.

(B) "USING" SHALL MEAN HOLDING A PORTABLE ELECTRONIC DEVICE WHILE VIEWING, TAKING OR TRANSMITTING IMAGES, PLAYING GAMES, OR COMPOSING, SENDING, READING, VIEWING, ACCESSING, BROWSING, TRANSMITTING, SAVING OR RETRIEVING E-MAIL, TEXT MESSAGES, OR OTHER ELECTRONIC DATA.

3. SUBDIVISION ONE OF THIS SECTION SHALL NOT APPLY TO:

(A) THE USE OF A PORTABLE ELECTRONIC DEVICE FOR THE SOLE PURPOSE OF COMMUNICATING WITH ANY OF THE FOLLOWING REGARDING AN EMERGENCY SITUATION: AN EMERGENCY RESPONSE OPERATOR; A HOSPITAL; A PHYSICIAN'S OFFICE OR HEALTH CLINIC; AN AMBULANCE COMPANY OR CORPS; A FIRE DEPARTMENT, DISTRICT OR COMPANY; OR A POLICE DEPARTMENT,

(B) ANY OF THE FOLLOWING PERSONS WHILE IN THE PERFORMANCE OF THEIR OFFICIAL DUTIES: A POLICE OFFICER OR PEACE OFFICER; A MEMBER OF A FIRE DEPARTMENT, DISTRICT OR COMPANY; OR THE OPERATOR OF AN AUTHORIZED EMERGENCY VEHICLE AS DEFINED IN

SECTION ONE HUNDRED ON OF THIS CHAPTER.

4. A PERSON WHO HOLDS A PORTABLE ELECTRONIC DEVICE IN A CONSPICUOUS MANNER WHILE OPERATING A MOTOR VEHICLE IS PRESUMED TO BE USING SUCH DEVICE. THE PRESUMPTION ESTABLISHED BY THIS SUBDIVISION IS REBUTTABLE BY EVIDENCE SHOWING THAT THE OPERATOR WAS NOT USING THE DEVICE WITHIN THE MEANING OF THIS SECTION.

5. THE PROVISIONS OF THIS SECTION SHALL NOT BE CONSTRUED AS AUTHORIZING THE SEIZURE OR FORFEITURE OF A PORTABLE ELECTRONIC DEVICE, UNLESS OTHERWISE PROVIDED BY LAW.

6. A VIOLATION OF THIS SECTION SHALL BE A TRAFFIC INFRACTION AND SHALL BE PUNISHABLE BY A FINE OF NOT MORE THAN ONE HUNDRED FIFTY DOLLARS, PROVIDED, HOWEVER, THAT A SUMMONS FOR OPERATING A MOTOR VEHICLE IN VIOLATION OF THIS SECTION SHALL ONLY BE ISSUED WHEN THERE IS REASONABLE CAUSE TO BELIEVE THAT THE PERSON OPERATING SUCH MOTOR VEHICLE HAS COMMITTED A VIOLATION OF THE LAWS OF THIS STATE OTHER THAN A VIOLATION OF THIS SECTION.

Be sure to send in your scanner-related photos to:

ScannerDigest@gmail.com

MAINE

Loren Fields
hornsmoke@gwi.net

Greetings! Let me start out this installment with a frequency CORRECTION: now that the dust is almost settled, here are the actual Augusta PD frequencies you want to listen to:

****APD Primary repeater: 153.6275R**
****APD TAC repeater: 152.2925R**
****AFD Primary repeater: 152.9225R** (also, at times, re-trans on the old 154.400.)

The fire department HT's still have intermittent problems, but the issue is being slowly resolved. I have also been programming more and more Pro-106/-197 scanners for our local Radio Shacks (now known as "The Shack.")

Here's other frequency changes from around the Pine Tree State:

**On Thursday, Oct. 1, 2009 Sag. Fire and Law went narrowband. They are upgrading radios in all Departments over the next few days. There will not be too much change.

Sagadahoc Fire will change from 154.295 simplex to **154.2950R**. PL127.3
Sagadahoc Law will change from 155.685 simplex to **155.0775R**. PL 192.8
Sagadahoc Law North repeater is **155.6850R**. PL 192.8
Sagadahoc Fire North repeater is **155.9550R**. PL127.3

The current Fire and Law frequencies will be used as back-up channels. (Thanks to a SCAN-ME poster)

****Dave posted this on SCAN-ME:**

Sometime on October, CCRCC implementing three new (5-site) simulcast repeater channels. This is a result of the $1.7 million dollar bond package voters approved and almost 1 year of work.

These freqs are:
Cumberland County Sheriff's Department primary: 151.1075
Cumberland County Law: 154.8750
Cumberland County Fire-EMS: 155.6250

All are 107.2 PL/CG on receive and are narrow band. There is no plan for P25 or encryption.

Please note that 155.625 is the existing wide-band two site system they have now. The last two channels will not be turned on until all CCSO units are migrated to the new 151 channel above.

Denis, K1STB shares the following about Winthrop/Monmouth public safety, etc:
In the near future the Monmouth police will be utilizing the Winthrop police repeater 154.860 . This will free up the present Monmouth frequency of 154.055 for use with the ambulance / fire and highway department.

Monmouth was previously dispatched by the RCC in Augusta. They switched to Winthrop dispatch as of July 1st.

The hold up to the switch to Winthrop police system is the in car repeater system which needs to be installed in the Monmouth cruisers. Once this is completed the switch will take place.

Next is an informative article on the new state-wide radio system from the Office of Information Technology (OIT.) The red lettering is my own emphasis.

MSCommNet Project
By Tom Driscoll, MSCommNet
OIT's MSCommNet project recently signed a significant contract with systems integrator Harris Communications.

MSCommNet is OIT's **M**aine **S**tate **C**ommunications **N**etwork project. It is four years into an eight year process to develop and commission a unified statewide land mobile radio network for State law enforcement, public safety, and public service agencies. The new system will utilize significant portions of the State's existing communications infrastructure with a modern technical foundation that addresses current and future technical needs and business requirements.

After a rigorous competitive bidding process that concluded earlier this year, the State and OIT selected a bid from a team lead by Harris RF Communications to deploy MSCommNet. The statewide system will include 40 sites throughout the State, guaranteeing mobile radio coverage across 95 percent of the state. Harris has more than 80 years of experience in the industry, successfully deploying more than 500 Land Mobile Radio (LMR) systems around the world.

The MSCommNet project falls under OIT's Radio Services Section\Network Services\Core Technologies. Shawn Romanoski directs the Radio Services Section and is also the key technical sponsor of the MSCommNet project. Importantly, MSCommNet will allow Maine 's law enforcement, public safety and public service agencies to fully comply with the federal narrow banding initiative, which is designed to increase the number of available channels for communication while reducing the possibility of frequency interference. All public service communications systems must meet these federal mandates by December 31, 2012. OIT is committed to helping agencies around the state meet that timeline. The MSCommNet system will provide Maine 's law enforcement, public safety and public service first responders with a number of benefits and new technical features and capabilities including:

- **Agency Autonomy:** All of the State's public safety agencies will gain the advantages of a shared network but will remain autonomous within the system. Each agency will have independent secure partitioning, **secure assigned talk groups** and configuration clients allowing local control.

- **Expanded and Dependable Statewide Communication:** Designated users will have the ability to communicate to any other user in Maine no matter the site, region or agency without dispatcher intervention.

- **Interoperability:** MSCommNet will provide interoperability at three levels:

>>*Standards:* The radios will operate on VHF, P25 and legacy analog networks

>>*Radio:* Any vendor's P25-compliant radio will operate on the system

>>*Network:* MSCommNet will interoperate with any system regardless of brand or band MSCommNet will seamlessly integrate two proven technologies (trunking and conventional) onto a single statewide network, offering transparency to the day-to-day law enforcement, public safety and public service user. The **trunking technology** will provide advanced feature sets and capacity efficiencies, while the P25 conventional component will reduce the power requirements of remote sites.

The new statewide radio system will be based on Harris' VIDA (Voice, Interoperability, Data, Access) Network technology, joining Nevada, Florida, Delaware and Pennsylvania in adopting statewide radio systems based on the proven land mobile radio (LMR) technology. The VIDA Network is a cost-effective, Internet Protocol (IP) - based interoperable radio communications technology that fully supports analog and digital radio communications systems, including the P25 (Project 25) Phase 1 and Phase 2 standards. VIDA also supports communications between new and legacy systems to provide seamless interoperability with other agencies, regardless of frequency band, radio brand or operating mode.

The MSCommNet team will be located at 290 State Street Augusta commencing August 31, 2009. Updated information can always be obtained from the official OIT website:

http://www.maine.gov/oit/news

Here's the Harris Corporation news release with some minor variations from the above OIT blurb:

Harris Corporation, an international communications and information technology company, announced that the State of Maine Office of Information Technology (OIT) has selected the company's Public Safety and Professional Communications business to deploy MSCommNet, a hybrid Project 25 (P25) VHF statewide digital radio system, based on the company's VIDA(R) (Voice, Interoperability, Data, Access) Network technology. Designed to meet the unique needs of Maine's law enforcement, public safety, and public service first responders, the P25 VHF system is fully compliant with Phase 1 of the federal P25 standard and will include 40 sites throughout Maine, providing mobile coverage across 95 percent of the state. Supporting suppliers on the Harris winning bid include Jacobs Telecommunications, Radio Communications Management and Alcatel-Lucent.
"We are pleased to announce that as a result of receiving our panel's highest score, the Office of Information Technology has contracted with Harris," said Richard Thompson, Chief Information Officer (CIO), State of Maine Office of Information Technology. "Following a lengthy, open and comprehensive bid process, the hybrid system proposal was selected for a number of reasons, including a rapid, low-risk implementation plan, a proven, state-of-the art technology platform and a cost-effective approach that will utilize and consolidate our existing resources and

systems. The Harris proposal provides the State with a clear roadmap to future technologies and growth, avoiding stranded costs."

The State of Maine's system will join Nevada, Florida, Delaware and Pennsylvania in adopting statewide radio systems based on Harris proven VIDA Network technology. The VIDA Network is a cost-effective, Internet Protocal (IP)-based interoperable radio communications technology that fully supports analog and digital radio communications systems, including the P25 Phase 1 and Phase 2 standards. VIDA also supports communications between new and legacy systems to provide seamless interoperability with other agencies, regardless of frequency band, radio brand or operating mode. The system is P25 Phase 1-compliant and software upgradeable to the new P25 Phase 2 standard.
"We are confident that Maine's public safety and public service users will receive a reliable, robust interoperable communications system from Harris that will provide the support they need to focus on the tasks they do best - protecting and assisting the residents of Maine," said Dana Mehnert, group president, Harris RF Communications. "The flexibility and depth of the VIDA Network will enable the State of Maine to deploy a hybrid trunked/conventional VHF radio system that meets and exceeds all the requirements of the P25 standard. Powered by VIDA's superior technology, the system will provide the State with a clear migration path for future expansion, extending the life of the system to provide Maine's public safety agencies and officials with necessary communications capabilities while keeping the costs to Maine's citizens reasonable."

Description of the MSCommNet System:
The hybrid system will provide P25 trunking technology with advanced feature sets and capacity efficiencies, while the P25 conventional component of the system will reduce the power requirements at remote sites that will utilize solar energy systems. Additionally the hybrid trunked/conventional P25 system will provide critical features including group, individual and emergency call functionality. The upgrade to the system will insure that the State of Maine is compliant with the Federal Communications Commission requirements for non-Federal public safety agencies to be narrowband compliant prior to January 1, 2013.

The VIDA Network will enable Maine to select the most efficient and cost-effective radio equipment to connect analog and digital systems throughout Maine through the Harris NetworkFirst(R), an innovative IP network switching architecture. NetworkFirst has been designated as a Qualified Anti-Terrorism Technology under the Department of Homeland Security's SAFETY Act. The MSCommNet system will provide the State of Maine with an advanced set of features including:

** Interoperability: The VIDA-based system allows interoperability at three levels:*

** Standards: The radios will operate on VHF, P25 and legacy analog networks*
** Radio: Any vendor's P25-compliant radio will operate on the system*

** Network: VIDA will interoperate with any system regardless of brand or frequency band*

** Statewide Agency Communication: Designated users will have the ability to communicate to any other user no matter the site, region or agency - with no dispatcher intervention.*

** Agency Autonomy: All of the State's public safety agencies will realize the advantages of a shared network but can remain autonomous within the system. Each agency will have independent secure partitioning, secure assigned talkgroups and configuration clients allowing local control.*

Harris Public Safety and Professional Communications is a leading supplier of assured communications(R) systems and equipment for public safety, federal, utility, commercial and transportation markets, with products ranging from the most advanced IP voice and data networks, to industry leading multiband, multimode radios, to public safety-grade broadband video and data solutions. With more than 80 years of experience, Harris supports over 500 systems around the world.
About Harris Corporation Harris is an international communications and information technology company serving government and commercial markets in more than 150 countries. Headquartered in Melbourne, Florida, the company has approximately $5 billion of annual revenue and 15,000 employees - including nearly 7,000 engineers and scientists. Harris is dedicated to developing best-in-class assured communications ((R)) products, systems, and services. Additional information about Harris Corporation is available at http://www.harris.com

SOURCE Harris Corporation
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Maine just passed into law a "Distracted Driver" provision. Although primarily aimed at texting/cell phones/etc, it has ramifications to anyone with multiple radios/scanners.

PUBLIC Law, Chapter 446 LD 6, item 1, 124th Maine State Legislature
An Act To Establish a Distracted Driver Law

PLEASE NOTE: Legislative Information cannot perform research, provide legal advice, or interpret Maine law. For legal assistance, please contact a qualified attorney.
An Act To Establish a Distracted Driver Law Be it enacted by the People of the State of Maine as follows: Sec. 1. 29-A MRSA §2117 is enacted to read: § 2117. Failure to maintain control of a motor vehicle

1. Definitions. As used in this section, unless the context otherwise indicates, the following terms have the following meanings.

A. "Operation of a motor vehicle while distracted" means the operation of a motor vehicle by a person who, while operating the vehicle, is engaged in an activity:

(1) That is not necessary to the operation of the vehicle; and
(2) That actually impairs, or would reasonably be expected to impair, the ability of the person to safely operate the vehicle.

2. Failure to maintain control of a motor vehicle. A person commits the traffic infraction of failure to maintain control of a motor vehicle if the person:

A. Commits either a traffic infraction under this Title or commits the crime of driving to endanger under section 2413 and, at the time the traffic infraction or crime occurred, the person was engaged in the operation of a motor vehicle while distracted; or

B. Is determined to have been the operator of a motor vehicle that was involved in a reportable accident as defined in section 2251, subsection 1 that resulted in property damage and, at the time the reportable accident occurred, the person was engaged in the operation of a motor vehicle while distracted.

A person may be issued a citation or summons for any other traffic infraction or crime that was committed by the person in relation to the person's commission of the traffic infraction of failure to maintain control of a motor vehicle. Effective September 12, 2009 SP0015, LR 132, item 1, Signed on 2009-06-19 00:00:00.0 -First Regular Session - 124th Maine Legislature, page 1

For those that program their scanners with the standard Radio Shack programming cable, here's a "heads up!" regarding Vista drivers, etc. A fellow scannist recently purchased the RS 20.047 cable w/ driver. "One Radio Shack Central" sent up the "outdated" driver software to our local "The Shack" store. Ironically enough I had purchased the updated software in the same store, months before. The old software will NOT work with Vista.

The solution:

1) The latest version: Here's what to look for: 20.047A (notice the "Alpha" designator on the end of the sku.) Although the "A" does NOT come up on the actual Radio Shack internal computer system in the store, look for the "A" physically printed on the package. Additionally, the proper cd containing the Vista driver is RED.
2) http://www.greamerica.com/support will have the proper driver, even though it doesn't say "Radio Shack." This problem came up on another list. I use the same cable for my Pro-97's, -164's, yada yada and the like.

For the record, I use Starr software to program my extensive RS scanner collection. Go to **www.starrsoft.com** for the programming, which is available for purchase. Older models are free.
Link section:
**Here's a link about the arrest of a scanning enthusiast that used computers, scanning and texting to coordinate the G-20 protests:
http://www.nytimes.com/2009/10/05/nyregion/05txt.html?bl

This is to a manual archive site from England:
http://www.radios-uk.com/manuals.htm

Under the "HUMAH" category, this following tidbit has been making its rounds throughout the amateur community. It is obviously inspired by the dubious "Cash for Clunkers" program. Read on...

Subject: Cash for Radio Clunkers:

Now is the time to upgrade your old radio. In an effort to further revive the weak economy, the government announced that it started a new "Cash for Radio Clunkers" program on August 17th.

The program is aimed at members of the Amateur Radio Service, also known as ham radio operators. Operators with transceivers having less than 50dBc@10kHz of Phase Noise and/or with Noise Figures higher than 10dB Will be eligible to trade in their old units (which must be crushed) for new transceivers and will receive a credit based upon the improved performance.

NF Improvements of 5 dB are eligible for $100 credit and 8dB or better are eligible for $200. Phase noise improvements to better than 85dBc@10kHz will be eligible for an additional $100 plus 1000 contest points. Operators must be currently licensed and must show proof of purchase of the old transceiver, which must be in working order. Tube transceivers are deemed to be museum pieces and not eligible for this program. See your retailer for further details.

I encourage you FaceBook denizens to visit my FaceBook page: www.facebook.com/hornsmoke and say "hello!" Until next time, keep your hand on your wallet, your powder dry and your shot group tight.

God Bless America, and **obey Acts 2:38**.
Fields out.

EASTERN PENNSYLVANIA *Steve Bower, Jr.*
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Former DHS Secretary Ridge Discusses Critical Issues Facing Public Safety

By Mary Rose Roberts
The United States faces many biological, chemical and radiological threats. For example, an industrial accident may leak toxic chlorine, a terrorist could release a dirty bomb or a new virus strain could escape a research laboratory. Regardless of the incident type there is one obvious commonality: First responders are the ones tasked with controlling the situation and safeguarding the community. So how can our nation's first responders prepare for such threats?

Tom Ridge — former Pennsylvania governor and the first director of the Department of Homeland Security — give tips on how first-responder agencies can protect themselves and their communities.

What are the greatest threats facing the United States?
The greatest national threat is a growing sense of complacency — and an eroding sense of urgency — to be mindful of the kind of world we are living in. The further we get away from 9/11, the more concerned I am. It's not the emergency management professionals: the first responders, our fire chiefs, our police chiefs. It's the general public who has become a bit more apathetic than we had hoped.

Concerning material threats the greatest concern I have is still the possibility of a radiological or chem-bio attack as a weapon of mass effect in terms of mass casualties.

How should first responders prepare for the aforementioned threats?
There is no substitute for training and exercises that include local government, individual citizens and the private sector. I do believe in the different kinds of exercises conducted — everything from the tabletop to the actual attempt to be as realistic on the streets of a particular community. I think accepting the notion that such an attack could occur, working with adjacent communities and creating a mutual-aid agreement are important because, frankly, communities are not all equipped the same way and don't have the same equipment, capabilities and resources.

First responders need the collaboration and the cooperation of not only government leaders but also the corporate sector and individual citizens to participate in exercises. We can't just put the burden exclusively on first responders. It is a community-wide responsibility. First responders and fire chiefs can be the catalysts. But we need communication, cooperation and collaboration with the community as well.

What types of technologies have you seen that can help first responders in the field?
Here's where I think first responders need help from the private sector. I think there is a great need to use technology of detection that organizations can embed into their buildings, plants and facilities. The equipment will provide real-time information about the threat and that data can be transmitted immediately — if there is a concept of operations between the private sector that has this technology and the first-responder agency.

What role do interoperable communications play?
That's a really sensitive point with me there. I am very disappointed that one of the most important recommendations from the 9/11 Commission Report, sanctioned by Congress, before which I testified and around which many great recommendations were made … that the very high priority they gave to a public-safety interoperable communications systems continues to be ignored.

Right now, we have patchwork, a piecemeal of technologies. At the end of the day, what this country needs, what the first responders deserve, what citizens should demand is that there's a public safety broadband interoperable communication system built. … I can't imagine that there's one first responder who disagrees with me.

Readers also have expressed a need for a first-responder, interoperable communications system.
Here's the irony of this. It's not just about responding to a terrorist attack. There could be a horrible accident. There could be god-forbid another natural disaster. There could be a terrorist attack. There could be a major traffic accident involving hundreds of people. There could be a train wreck… . It would be so much better for this country as far as safety in general if we had a national broadband system for public safety. So I continue to be a strong advocate for it. And one of these days maybe Congress and the FCC will listen.

Has FEMA's public-education campaign — a teaching system to prepare and protect their own well-beings during emergencies — been successful?
It's like water dripping on a stone; it eventually will make an impression. We want individuals to take personal responsibility for their safety and welfare. There are certain regions where it's embedded in their notion, for example in hurricane and tornado alley. So to prepare citizens, we initiated the ready.gov campaign. We basically said to folks to prepare, plan and stay informed — very simple. FEMA just needs to continue to emphasis it, continue to maintain the visibility of the ready campaign. In time, I think we probably will see a modest increase in those who have prepared themselves for an emergency. But we still have a lot of work to do.

WESTERN PENNSYLVANIA

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No column this issue.

CENTRAL PENNSYLVANIA

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No column this issue.

VERMONT

After eight months of living in Vancouver, BC, I've returned to Vermont and I'm back at work. And just in time for the coming winter, too! Smart move, huh? Anyway, here's what's new from both BC and Vermont since I last checked in.

Vancouver EWARS Site Update

First, a quick update from Vancouver, BC. No sooner had I sent my column off to Lou and Jeff last April than the good folks at E-comm upgraded the Vancouver site from 14 to 20 channels. So here's the latest line-up of channels and frequencies for that site.

Ch	Frequency	Ch	Frequency
1	866.08750	11	866.76250
2	866.33750	12	867.33750
3	866.58750	13	867.21250
4	866.83750	14	866.96250
5	867.08750	15	866.11250
6	866.13750	16	867.36250
7	866.38750	17	867.03750
8	866.63750	18	866.23750
9	866.88750	19	866.48750
10	867.48750	20	867.28750

See our last issue for more information about the EWARS system in use in Vancouver and surrounding area.

New Frequency In Use at Burlington International Airport

Now turning our attention to the latest from Vermont, during a recent monitoring expedition to the Burlington International Airport, I noticed that a new UHF frequency is carrying voice traffic for approaches and departures; 285.4750. The other frequencies in use for approaches and departures remain the same; 121.1000, 126.3000 and 278.8000 and 360.8000. And, all other air traffic control frequencies remain unchanged.

During a recent monitoring session when the VT Air National Guard fighters were arriving and departing, they used 278.8000 and 360.8000 only. So it's unclear precisely how 285.4750 will be used. It's one that bears watching and listening.

Burlington PD Dispatch Now 100% Encrypted

Several months ago, listeners in the Burlington area began reporting that Burlington Police Department's (PD) dispatch on 460.1250 had gone encrypted. Sure enough, when I got into the area and turned on my scanner, all the comms were in P-25 encrypted digital. I'm doing research into why this was done and will report to you anything I find out. Fortunately, none of the other area PDs have followed Burlington's example although many of them have the capability. All other PDs in Chittenden Co. remain analog although South Burlington PD does use P-25 encrypted voice occasionally on their dispatch frequency, 460.1750.

New Frequency for Franklin County Sheriff

Monitors are reporting that a new frequency is in use by the Franklin County Sheriff; 159.3075. They continue to use 453.2500 (D432) as well.

New LTR Passport System in Central Vermont

I've noticed a new LTR Passport system in the Barre-Montpelier area. My attempts to trunktrack it have been unsuccessful. I suspect it's a Passport system because the data "bursts" on the active frequencies occur much more frequently than other LTR system on the air in that part of the state. The "home" channel frequency appears to be 452.3375 with 451.4625 handling overflow. There are several businesses using the system. The most active users of the system are tow trucks working with AAA.

Heard something interesting lately? Has your favorite monitoring target made some changes? Drop me a line here at Scanner Digest and let me share it with other folks who are interested. You can remain totally anonymous if you wish.

And that's it from Vermont this time around.

MASSACHUSETTES

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Here we go with another Massachusetts column.

Boston area fire stations map -
http://maps.google.com/maps?client=firefoxa&rls=org.mozilla:en-US:official&hl=en&tab=wl

Bristol County fire stations map -
http://maps.google.com/maps?client=firefoxa&rls=org.mozilla:en-US:official&hl=en&tab=wl

Essex County fire stations map -

http://maps.google.com/maps?client=firefoxa&rls=org.mozilla:en-US:official&hl=en&tab=wl

Boston area scanner feeds -
https://spreadsheets.google.com/ccc?key=0AoX8tpb0l73sckRKd3JiVFJ4V0huTHg5cHJCRTd1MkE&hl=en

Boston area freqs -
https://spreadsheets.google.com/ccc?key=0AoX8tpb0l73scG9Hb1RSQVBvY0cwRnNjRlFvUklRUXc&hl=en

EMS in Massachusetts -
https://spreadsheets.google.com/ccc?key=0AoX8tpb0l73scG9Hb1RSQVBvY0cxSEg5X3d6a2g2U1E&hl=en

Boston area fire boxes -
https://spreadsheets.google.com/ccc?key=0AoX8tpb0l73scG9Hb1RSQVBvY0cwa0ZTdVItYWFmVVE&hl=en

Private ambulance stations in Massachusetts -
https://spreadsheets.google.com/ccc?key=0AoX8tpb0l73scG9Hb1RSQVBvY0cwS0dJamg0T01PQ0E&hl=en

MetroFire freqs - http://www.massmetrofire.org/freq.html

New radio licenses - 2009

AMR Ambulance in Chicopee - 152.4425R (R = repeater output channel)
Natick FD - 472.8000R
Shirley FD - 471.5000R
Shattuck Hospital - 464.9625R
Clinton FD - 465.6000 - fire boxes
Boxboro FD - 471.6000R
Weston FD - 458.5375 - fire boxes
Centerville Osterville FD - 851.775R - 852.55R - 853.2625R
Cape Cod Community Hospital - 855.7125R
Quincy - 854.3125R
Quincy FD - 484.8000R
Braintree Electric - 461.6875R
Rehoboth PD - 460.0375R
Littleton FD - 458.9750 - fire boxes
Eastham FD - 453.4500R
Dana Farber Cancer Center - 463.4875R
Mass Bay Community College - 463.4375R - 464.4125R
Hingham Electric - 484.6750R
Great Barrington - 158.9100
Hingham Light - 461.7375R
Lunenburg Water - 462.3750R
Deaconess Hospital in Needham - 461.9875R
Mass Enviro Police - 31.4200 - 31.4600 - 31.5000
Western Mass Law Enforcement Council - 460.2250R - 460.4750R - in Berkshire County

Here are 3 new items that I noticed on the Internet
BAMA Dispatch - 470.0750 - NAC 291
Regional EMS - 470.2000 - PL 103.5
BAPERN South Tac - 470.1500 - NAC 627

The new MetroFire channels are listed as -
North - 482.25R - PL 107.2 - repeater at Woburn
Central - 482.05R - PL 123.0 - repeater at Cambridge
South - 482.2125R - PL 103.5 - repeater at Milton
North FireGround - 482.1875 - PL 141.3
Central FireGround - 485.1875 - PL 127.3
South Fireground - 485.10 - PL 114.8
Silver - 470.1375 - PL 173.8
Orange - 470.1875 - PL 156.7
Unknown use - 473.1375 - 473. 1875 - 485.125

Lynn FD is receiving a $1.07 million FEMA grant to install UHF radio systems for Lynn FD, Melrose FD, Saugus FD, and Malden FD. Installation should begin in Oct 2009 and be finished by Feb 2010. The FDs are required to contribute 20% of the cost of the radios. With the installation of these new radios, all of the MetroFire FDs will be on UHF (except for MassPort FD (800), Cambridge FD (800), and possibly Weymouth FD) (154.235R). It is unknown if Swampscott FD and Nahant FD will stay on the present Lynn FD VHF frequencies.

Sept 4 2009 - Listening to Boston EMS make a street closure announcement on 453.10 DPL 165 and 462.95, there is a very clear delay of the audio on the 453.10 channel.

Take care - Happy scanning - Peter Szerlag

CONNECTICUT

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Waterbury Fire has switched to 154.3250 MHz PL 118.8 with a much better signal and audio, they are no longer on 154.415 Mhz. Please make the necessary corrections.

SOUTHEASTERN NEW YORK

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I am starting another issues' column with a housekeeping item from the previous issue. In Issue 48 a misprint showed Town of Ramapo (Rockland County) emergency medical services dispatch and operations taking place on 155.355 and 151.400. That should have read 155.355 (CTCSS tone 151.4).

Also, two Orange County follow-ups from the previous issue as well:

First, regarding the item about Warwick Fire Department switching operations over to 471.050R – add to your notes that they are using DCS 343 on the repeater output. The significance of that number is to honor the 343 Fire

Department of the City of New York firefighters and fire officers that made the ultimate sacrifice on September 11, 2001.

The situation in the Town of Highlands has shaken out. As a brief reminder, the Town of Highlands Board opted recently to terminate the Town's contract with the Village of Highland Falls for dispatch services for their police department and ambulance corps. Those services are now provided by the County's Division of Emergency Communications free of charge. Highlands Police is now using 470.5625 (NAC 110) to link to Orange 911's Municipal Radio Dispatch repeater (155.850R, 107.2) for dispatch/operations purposes. The ambulance corps is using 470.5875 (NAC 210) to link to Orange 911's 153.860, 77.0 repeater. Yes, you read that correctly.... Orange 911. Officially effective October 1, the county dispatchers, regardless of service – police, fire/rescue, or EMS – are now to be called "Orange 911" instead of "Central," "36-Control," and "WAU-718" respectively. This change over was ordered by the county Department of Emergency Services to bring Orange in compliance with a National Incident Management System Alert that suggested the use of plain English over the radio to identify users. I'll reserve my comments on the substantial faults of this particular change and continue with the topic at hand...

The Highlands Police fleet has expanded. Their cars now number from 110 up to 119. The Town of Highlands Ambulance Corps is now paged by "Orange 911" over 157.450 (136.5). The pages are multicast over 158.940 (151.4) – THAC's original dispatch/operations channel. Lastly, 470.6125R (NAC 310) is used as a townwide common channel.

***

Okay, let's move on to some new topics; across the Hudson River we go...

As my areawide public safety station tour progresses, I recently had the opportunity to visit another fire station, this time in Westchester County. As loyal readers might recall from one of my first couple of issues, I sometimes have a bad habit of being unprepared for a "buffing" opportunity – and this was just one of those occasions. I had no scanning equipment with me (Boo! Hiss! – I know, I know). But – having a keen eye, and a sharp volunteer as my tour guide, – the visit (beyond the camaraderie shared and the usual hospitality shown) still paid off handsomely. Recreated below is a grid that was posted in the firehouse's radio room that explained the standard public safety channel plan of the County UHF trunked system radios.

Zone A Fire (Trunked)	Zone B EMS (Trunked)	Zone C (Conventional)	Zone D (Conventional)
F1 60-Control	60-Control	Ground Operations 1	U-Call 40
F2 60-Fire 10	60-EMS 10	Ground Operations 2	U-Tac 41
F3 60-Fire 11	60-EMS 11	Ground Operations 3	U-Tac 42
F4 60-Fire 12	60-EMS 12	Ground Operations 4	U-Tac 43
F5 60-Fire 13	60-EMS 13	Ground Operations 5	
F6 60-Fire 14	60-EMS 14	Ground Operations 6	
F7 60-Fire 15	60-EMS 15	Ground Operations 7	
F8 60-Fire 16	60-EMS 16	Ground Operations 8	
F9 60-Fire 17	60-EMS 17		
F10 60-Fire 18	60-EMS 18		
F11 60-Fire 19	60-EMS 19		
F12 60-Ops 1	60-Ops 1		
F13 60-Ops 2	60-Ops 2		
F14 60-Ops 3	60-Ops 3		
F15 60-Ops 4	60-Ops 4		
F16 60-Ops 5	60-Ops 5		
F17 60-Ops 6	60-Ops 6		
F18 60-Ops 7	60-Ops 7		
F19 60-Ops 8	60-Ops 8		
F20 60-Ops 9	60-Ops 9		
F21 60-Ops 10	60-Ops 10		
F22 TAC 1	TAC 1		
F23 TAC 2	TAC 2		
F24 TAC 3	TAC 3		
F25 TAC 4	TAC 4		
F26 TAC 5	TAC 5		
F27 TAC 6	TAC 6		
F28 TAC 7	TAC 7		
F29 TAC 8	TAC 8		
F30 TAC 9	TAC 9		
F31 TAC 10	TAC 10		
F32	Dobbs Ferry Hospital		
F33	Hudson Valley Hospital		
F34	Lawrence Hospital		
F35	Mount Vernon Hospital		
F36	N Westchester Hospital		
F37	Phelps Hospital		
F38	Saint John's Hospital		
F39	Saint Joseph's Hospital		
F40	Sound Shore Hospital		
F41	Westchester Medical Center		
F42	White Plains Hospital		
F43	Greenwich Hospital		

Some observations...

► Visit www.westchestergov.com/emergserv/jdocs/PD.ppt for a few details on how the talkgroups above are used. Note that this hyperlink is to a powerpoint presentation. If you can't open it, try to Google it and view it in HTML.

► Channels two through eleven in Bank A are set up to correspond with the ten fire battalions in Westchester. What departments make up which battalions can be found at: http://emergencyservices.westchestergov.com/index.php?option=com_content&task=view&id=563&Itemid=1077

► I tried to find something similar (and easy on the eyes) on-line for the county's EMS battalions but couldn't. So here goes (along with their agency IDs):

EMS Battalion 10

35 Cortlandt Regional Medics
88 Cortlandt VAC
55 Croton EMS
48 Montrose Veterans Affairs Hospital
75 Peekskill VAC
83 Verplanck FD ambulance

EMS Battalion 11
87 Grasslands EMS
63 Hawthorne EMS
37 Mount Pleasant Medics
76 Pleasantville VAC
82 Valhalla VAC

EMS Battalion 12
53 Briarcliff FD EMS
74 Ossining VAC
73 Sleepy Hollow VAC
36 Tri-Village ALS

EMS Battalion 13
67 Lewisboro VAC
72 North Salem VAC
45 Northern Westchester Medics
78 Pound Ridge VAC
80 Somers FD ambulance
84 Vista FD ambulance

EMS Battalion 14
50 Ardsley VAC
56 Dobbs Ferry VAC
58 Elmsford FD ambulance
62 Hastings FD ambulance
59 Greenburgh EMS
64 Irvington VAC
81 Tarrytown VAC

EMS Battalion 15
61 Harrison VAC
66 Larchmont VAC
?? Mamaroneck Ambulance District
68 Mamaroneck. Village EMS
77 Port Chester EMS

EMS Battalion 16
51 Armonk FD EMS
52 Bedford FD ambulance
54 Chappaqua VAC
65 Katonah Bedford Hills VAC
70 Mount Kisco VAC

EMS Battalion 17
69 Mohegan VAC
86 Yorktown VAC
34 Yorktown ALS

EMS Battalion 18
57 Eastchester VAC
43 Mount Vernon EMS
33 Yonkers EMS
30 New Rochelle EMS

EMS Battalion 19
79 Scarsdale VAC
31 White Plains EMS

- The conventional simplex frequencies for Ground Operations can be found at the bottom of http://www.westchestergov.com/emergserv/jdocs/UHFlineup.pdf, along with who is supposed to use what channels toward the top.

- Apparently gone are the days of 155.220 being the HEAR frequency for Westchester County. No more waiting for air time, encoding, and hoping you got through. It appears that now all an inbound ambulance has to do is switch to the appropriate talkgroup between F32 and F43 and raise the hospital's emergency department directly. For talkgroup information visit http://www.nf2g.com/scannist/ny_west/BD02.html

- While you're on NF2G's webpage you'll find many details regarding the trunked system's frequencies and other talkgroups. I presume that, despite them being in two different zones, the 60-Ops ## (F12 through F21) and the TAC ## (F22 through F31) channels are actually just mirrors of each other between the two trunked banks [i.e. 60-Ops 2 (Channel 13) is talkgroup 5072 in Zone A and talkgroup 5072 in Zone B]. I'd appreciate if any reader can confirm that or, if my presumption is incorrect, if any reader can pass along the correct talkgroup numbers for each bank.

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The recent 64th Annual General Assembly of the United Nations has, once again, provided for some very interesting listening opportunities across the entire land mobile radio (LMR) spectrum. I won't rehash what has already been discussed on the various scanning message boards, e-mail reflectors, and the amateur radio scanning net that covers the New York Metropolitan area, but I will take some space to cover a rather odd series of transmissions I heard during one of the early days of the second week of the Assembly.

The New York City Police Department's TAC A (485.6125, 203.5), is one of five simplex channels available for all-purpose use within the department; the others being TACs B (485.5875, 210.7), C (485.5625, 218.1), D (485.4875, 225.7) and E (485.4625, 233.6). TAC A is now also the new primary point-to-point channel for the Traffic Control District (their primary no longer being TAC H – 473.7125, 218.1) so, understandably, it was a little busy with unit-to-unit chatter around the U.N. Two mobile radio users, apparently looking for a clear channel, switched over to TAC W – the Police Headquarters Security channel. I figure it was selected as an alternate because they were in the east midtown area and they figured that they'd probably be far enough away from Headquarters to not cause any interference downtown. Strangely enough I heard nothing on 458.825 (225.7), which I know, from past first hand monitoring experience in the area, works at Headquarters. I set out now to find out what's what. Their transmissions were eventually found on 485.825 (225.7).

Are there two TAC Ws in use by the NYPD? One TAC W for mobiles and another for walkie-talkies? Why not just call one of the frequencies TAC X, the next available letter, to avoid any confusion? Or, worse still, are there mobile radios in the fleet that are mis-programmed (what I personally suspect is the case)? The bottom line – if you've got room to spare in your scanner – throw both TAC Ws in.

MILITARY

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Following up on Issue 44, we will take a further look at the USAF A-10 Thunderbolt II. In 2006 the U.S. Air Force issued contracts to modernization of its fleet of 365 A-10A aircraft- expected to be completed by year's end 2009. The contracts are part of the A-10s Life Cycle Program Support (LCPS). Along with a two billion dollar Wing Replacement Program, resolving wing crack issues that temporarily grounded the A-10 fleet in 2008, an upgraded A-10 Thunderbolt II will go through the Precision Engagement Program (PEP). The upgraded A-10C configuration will have a number of avionics and weapons system upgrades.

Cockpit Upgrades

Inside the cockpit, a new Multi-Function Color Display (MFCD) has been installed along with new software that will allow the pilots to focus on ground targets by displaying information on the plane's Heads-Up Display (HUD). The software connects the targeting pod, the integrated-flight and fire-control computer, along with other systems- sending all data to the MFCD and HUD. This new system speeds up the Hands-On-Throttle-and-Stick functions (HOTAS) precluding the pilots from having to look down to effect switch setting changes. The pilots can now see everything on the HUD; their wingman, targets, data link and friendly locations on the ground several hundred miles in any direction. Prior to these upgrades, these systems were independent of each other. The pilots had to take their eyes off the HUD in order to view the information on their data link. These upgrades now give the pilot more information and better functionality within the MFCD and HUD, improving communication and the pilot's ability to get bombs on target and provide cover for ground troops. The pilot can now keep their heads up and eyes looking out the cockpit windshield.

The A-10C upgrade includes a Precision Engagement Kit consisting of a new cockpit instrument panel and smart weapons capabilities. Other cockpit items include an upfront controller, a new armament HUD control panel, and a redesigned main instrument panel. A new computer- The Central Interface Control Unit (CICU)- adds new cockpit controls and displays, including a pair of 5×5 inch multi-function color displays that include moving digital map functions. Meanwhile, the new integrated Digital Stores Management System (DSMS) keeps track of and launches weapons, linking applications as diverse as; video from the targeting pod, weapons status reports, and the data link. These upgrades required a major change to the aircraft's wiring and consume a lot more power, necessitating the addition of a second DC generator which will double the A-10's generator capacity.

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Cockpit, before upgrade

Cockpit, after upgrade

Weapon System Upgrades

Upgraded A-10s can now carry both LITENING II and Sniper Laser Targeting Pods, and have Joint Direct Attack Munitions and Wind Corrected Munitions Dispenser capabilities. The pods, which include long-range TV and infrared cameras with zoom capabilities and a laser target designator, will enable the pilot to identify targets from medium altitudes up to 30,000 feet, day or night. Illuminating targets for homing, the laser or GPS guided bombs proved successful during their initial deployments in Iraq. Their heat-sensing capability has even proved useful for finding buried land mines, which tend to retain a differential heat signature. Upgrading six of the A-10C's eleven pylons to smart weapons capability is the final piece of the basic infrastructure upgrades. A more powerful computer will also be added to the Low Altitude Safety and Targeting Enhancement System. A new stick grip and right throttle will provide true HOTAS fingertip control of aircraft systems and targeting pod functions. Using the HOTAS, the pilot can designate the targeting pod to monitor an area of interest, confirm target identification, and provide laser guidance to weapons from his A-10C or from another platform – all without removing his hands from the controls!

A-10s with the LITENING II pod

For our interests, in addition to the cockpit and weapons upgrades described above, there have been upgrades to the radios as well.

The AN/ARC-210 Radio

For those of you that have the opportunity to monitor A-10s on a regular basis, you may have noticed the simultaneous use of two UHF voice frequencies. As described in Issue 44, for voice communications, the Thunderbolt II was originally configured with three radios; two VHF [one VHF low fm(30 to 50), one VHF am(118.00 to 143.995 / 148.00 to 150.80)] and one UHF am (225.00 to 399.995), all in 25 kHz steps. In July of 2007, Rockwell Collins Government Systems received a $24.85 million contract to upgrade two hundred and ninety-four of the Air Force's three hundred and fifty six A-10's with ARC-210 radios. The A-10s receiving the radio upgrade are those birds that travel overseas to participate in action in Iraq and Afghanistan. This change in radio capabilities for the A-10 fleet is a result of The Precision Engagement Program listed above and was expected to be completed by July 2008.

The AN/ARC-210 consists of several variants, each providing a specific combination of functionality. The AN/ARC-210 Multimode Integrated Communications System (receiver-transmitter) provides two-way multimode voice and data communications over the 30-512 MHz frequency range in either normal, secure or jam-resistant modes via Line Of Sight (LOS) or satellite communications (SATCOM) links. The AN/ARC-210 is digitally reliable and software programmable; enabling instantaneous secure synchronization with external users. The AN/ARC-210 initially replaces LOS UHF/VHF, contains upgradeable features such as Beyond-Line-of-Sight (BLS), supports interoperability with numerous other platforms using the AN/ARC-210 and it fulfills the 8.33 MHz frequency separation requirement for Europe.

Outside the cockpit, the A-10Cs will have a new antenna as part of the new BLS Airborne Radio Communications-210 System Satellite Communications Upgrade. The SATCOM portion of the AN/ARC-210 radio will allow uninterrupted communications in mountainous areas like Afghanistan. With the old radios, pilots had to have a clear line of sight between the aircraft and the person with whom they were communicating. At some point, the A-10s are also slated to get a Joint Tactical Radio System (JTRS) based radio. The A-10 PE program office currently sees JTRS integration as a task for 2013 or later.

The Precision Engagement Program upgrades listed above will keep the A-10 flying until 2028 or beyond. Pretty amazing, considering prior to Desert Storm (1991) there was serious talk of retiring the Thunderbolt II to the bone yard in the desert! The Maryland ANG (175th FW) will be the first unit to convert to the modified aircraft and integrate them into normal operations beginning September 2007.

Locally here at JRB NAS Willow Grove, I have heard the pilots checking their SATCOM system with their ops. The A-10s here have also pretty much gravitated to simultaneous use of two UHF voice frequencies; one for ATC and the other for a/a. I have listed below a new set of UHF frequencies I have heard from the 111th FW (PAANG) and the 175th FW (MDANG). I would appreciate hearing from you with any reports of any new A-10C tactical UHF frequencies heard in your area.

385.900 175th Fighter Wing Tactical (reported by others)
266.600 175th Fighter Wing Tactical
233.550 111th Fighter Wing Tactical
238.850 111th Fighter Wing Tactical
254.550 111th Fighter Wing Tactical
391.200 111th Fighter Wing Tactical

OREGON

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No column this issue.

PHILADELPHIA *Column Editor Wanted*

No column this issue.

2-WAY RADIO ADVANTAGE OVER CELL PHONES

Have you ever wondered why police officers and firemen still use 2-way radios instead of cell phones? Although there has been extensive use of Nextel radios by law enforcement, 2-way radio continues to be the prominent communication device used by public safety agencies.

The answer is that 2-way radios are better for public safety for these six reasons.

- Government (city, county, state, and federal) authorities require ownership of the network infrastructures that they rely on, such as the towers and base stations. Cell phone companies only lease their services; therefore the government does not want to depend on these companies for critical services.
- The current cell phone technology does not provide priority channels. For instance, if police officer or fireman needs to make an emergency call, there is no guarantee that a cell phone call would go through if there are already a lot of calls on the network. Also, dropped calls and poor reception are unacceptable in emergencies.
- The need for very quick communication. Very few cell phones have instant communication capabilities, such as Push-To-Talk or Walkie-Talkie abilities.
- 2-way radios are much more rugged than cell phones. Police use their radios as clubs for defensive purposes. Firemen need radios that work in high temperatures and be easy to use while wearing large gloves and masks.
- The security of the network is also extremely important.
- Finally, two-way radios typically have much better encryption than public cell phones, since eavesdroppers are less tolerated on official communications.

SCANNING & THE INTERNET

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No column this issue.

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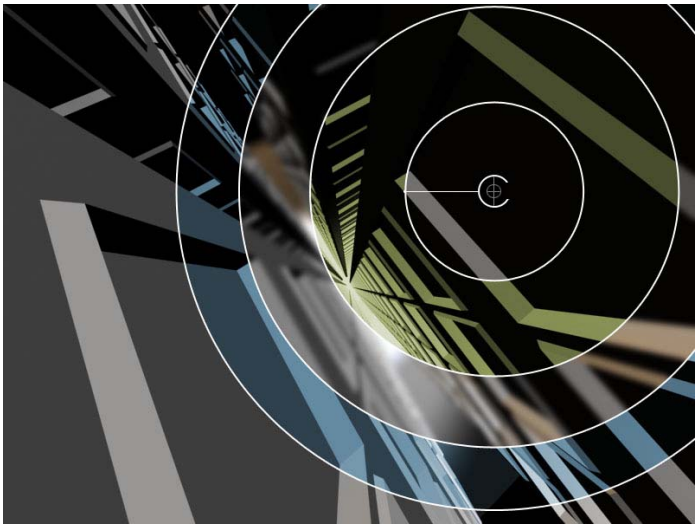

Scanner**Digest** Newsletter

Welcome to the Scanner Digest Newsletter! We're currently publishing quarterly e-magazine containing information for the scanner hobbyist. If it can be monitored on a scanner, we'll attempt to cover it from 30 to 1300 MHz and beyond!

Our purpose is to produce a newsletter to facilitate the exchange of information pertaining to the various services covered by a typical scanner radio. Dedicated regional column editors make up the heart of this publication.

The Scanner Digest Newsletter is not responsible for the accuracy or consequences incurred regarding the use of information listed in this publication. Since the purpose of this newsletter is to provide a platform for the submission and exchange of radio communication information, it thus becomes impossible to deem all contents as accurate. The very nature of radio licensing and usage makes it difficult to verify the accuracy of the information contained within. Generally information listed within the pages of the newsletter are derived from multiply sources including current FCC files, hobbyists and those directly involved with various public safety agencies.

Scanner Digest's policy has been not to limit or edit the individual columns submitted, unless we deem the information sensitive in nature which may jeopardize the safety of the parties involved. Only in this case will we edit out this type of input. (Example: We will not publish the frequencies used by a law enforcement surveillance team.)

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