

# ScannerDigest Newsletter

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GENERAL EDITOR

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Since many of our scanner buffs also have cross-interest in other facets of the hobby, we thought this would be of interest to some of our readers. The following is from our good friend **Bob Raymond, NE1I**

DXtreme Software is proud to announce that the latest version of our logging software for radio and TV monitoring enthusiasts is now available: **DXtreme Reception Log — Advanced Edition, Version 7.0**  
[bobraymond@dxxtreme.com](mailto:bobraymond@dxxtreme.com)  
[www.dxxtreme.com](http://www.dxxtreme.com)

## Product Announcement

### DXtreme Reception Log — Advanced Edition Version 7.0

DXtreme Software™ has released a new version of its popular logging program for radio monitoring enthusiasts: **DXtreme Reception Log — Advanced Edition™ Version 7.0.**

Like other logging programs, Reception Log — Advanced Edition lets listeners and DXers log the stations they've heard. But unlike other logging programs, Reception Log provides multimedia and advanced functions that can add a new dimension to logging activities.

### Schedule Checker™

Reception Log — Advanced Edition includes a Schedule Checker facility that lets users import schedules from the EiBi Web site and display schedule data according to the filter criteria they specify. Users can filter schedule

information by band (LF, MF, and HF), country, station, time, target area, and language. And they can also sort schedule information by frequency, time, day, country, station, language, target area, and transmitter site. When the *What's On Now?* function is activated, the schedule refreshes automatically at the top of each hour. For each schedule item, the Schedule Checker queries the Reception Log database to let users know by means of user-defined display colors whether they need to monitor a station for a brand new or verified country.

The Schedule Checker also lets users:

- Perform a DX Atlas azimuth plot from their location to the country or transmitter site of a scheduled station.<sup>1</sup>
- Tune their radio to the schedule frequency by double-clicking a schedule item (via integration with Afreet Omni-Rig2 or HRD Software's Ham Radio Deluxe2, both freely downloadable over the Web when this press release was written).
- Start a log entry for a scheduled station by right-clicking the schedule item.

The Schedule Checker has a separate Options dialog box that lets users indicate whether verification status should be based on QSLs only, the presence of audio files they've recorded, or both. Plus it lets users specify colors for country status indication.

### Multimedia Functions

Reception Log — Advanced Edition features an embedded Audio facility that lets users create and maintain an audio archive of stations heard. The program also features an integrated QSL Imaging™ facility, which lets users scan the physical QSL cards they receive from postal mail and capture the electronic QSLs they receive over the Internet. Reception Log saves both types of QSLs as digital images that users can view at any time. <sup>2</sup>

### Advanced Functions

Reception Log — Advanced Edition includes the following advanced functions:

Creates *customized* paper and e-mail reception reports.

### Advanced Functions

Reception Log — Advanced Edition includes the following advanced functions: Accumulates club report entries for reporting catches and QSLs to clubs and magazines.

- Has a Transmitter Sites module that stores ITU transmitter site locations, which can be used as a lookup window for adding transmitter site information to log entries.

- Displays and saves the Solar Flux, A-Index, and K-Index values in effect at the time of reception, and permits users to run performance reports on this information later.

- Retrieves the frequency and mode from supported radios2.

- Produces reports that track the performance of the user's monitoring station, and lets users FTP those reports to user-provided Web space for remote access.

- Integrates reports with DX Atlas to produce a map of pins; one color for heard countries and stations, another color for verified countries and stations. Pin colors can be chosen by users on the Preferences window.

- Backs up database, QSL Imaging, and audio files to two locations automatically.

- Provides support for monitoring Amateur Radio operators. Reception Log can retrieve call sign and address information for monitored hams from optional Buckmaster™ HamCall™, send automatic eQSL requests to monitored hams via www.eQSL.cc, and produce Ham-specific paper and e-mail reception reports.

### Documentation and Pricing

DXtreme Reception Log — Advanced Edition includes two Help systems: Embedded HTML Procedural Help and context-sensitive *What's This?* Help. It also provides access to the Internet-based *DXtreme Reception Log — Advanced Edition Information Center* for late-breaking news and instructions.

**DXtreme Reception Log** — Advanced Edition runs in 32- and 64-bit versions of Microsoft Windows® 7, Windows Vista®, and Windows XP. It retails for \$89.95 USD worldwide for electronic distribution. (Pricing for CD versions and upgrading users is available on our Web site.) All prices include lifetime product support by Internet e-mail.

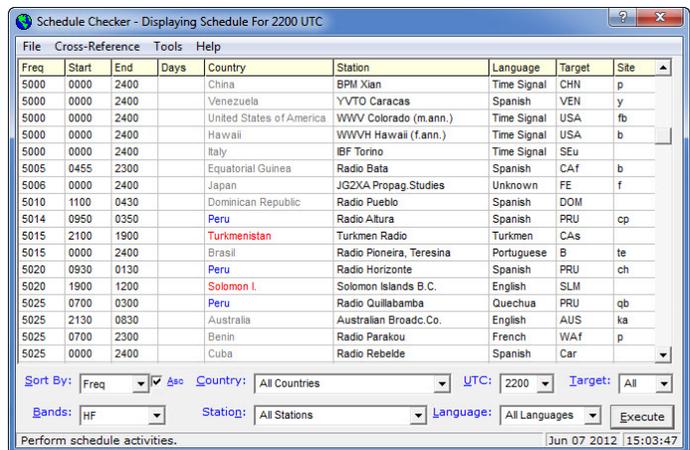
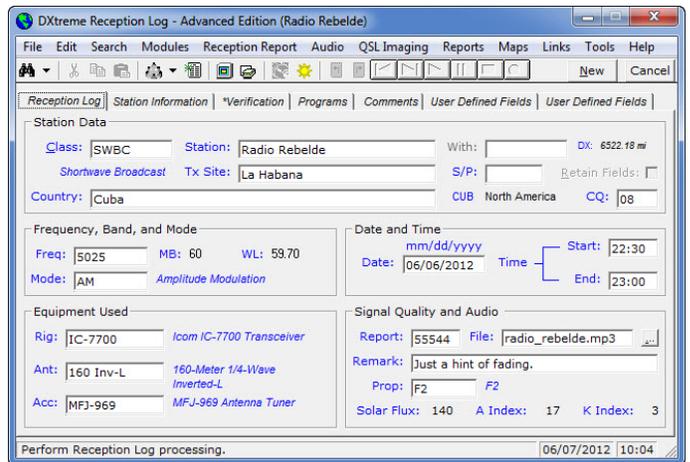
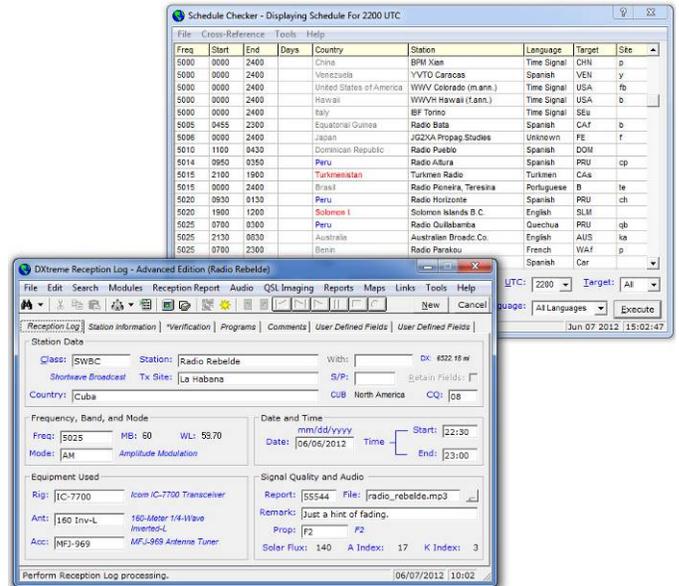
For more information about DXtreme Reception Log — Advanced Edition V7.0, visit [www.dxtreme.com](http://www.dxtreme.com)

### About DXtreme Software

Based in Nashua, NH, DXtreme Software produces powerful and easy-to-use logging applications for all kinds of radio enthusiasts — from LF, MF, HF, VHF, and UHF DXers and listeners to Amateur Radio operators. Contact Bob Raymond at [bobraymond@dxtreme.com](mailto:bobraymond@dxtreme.com) for more information.

1 — A license for Afreet DX Atlas is required to perform plots and create pin reports.

2 — A license for Omni-Rig or Ham Radio Deluxe is required to use rig control.



## CRUISE SHIP and MARITIME MONITORING

By Bill Dunn N1KUG

### Part I.

When you hear "Cruise Ship monitoring" many immediately think of just the VHF Marine frequencies [156-162 MHz]. This would be where much of the Inter-Ship, Port Operations, Pilots and the Coast Guard interface with maritime vessels of all sizes.

However there is another world of monitoring in the Maritime realm of radio use. This is the LMR VHF and UHF [457/467 MHz] Bands. Initially we think of these ships as boats, but we need to change that thought process to more of Floating/Traveling Hotels [Hotel, Casino, Concert Hall, Restaurants, Bars] and just like hotels there are many functions that require communications. These range from Security, Engineering [Power, Water, HVAC], Restaurant Staff, Housekeeping and then Management [Captain] and the Shore Excursion/Entertainment staff

Well, where do we find these frequencies? Not many will be found with an FCC Search, or even thru Mr. Google. Remember, although many of the Cruise Lines operate here in the United States of America, the vessels themselves are registered [Flagged] in a variety of countries. Depending on where the ship was built and registered this will have an impact on the frequencies used on-board.

Per the FCC [47 CFR Part 80.373 g(1)] the United States pairings for On-Board Communication, are available on a shared basis with stations in the Industrial/Business Radio Services.

These may look familiar to some as the original UHF Fast Food channels

	On-Board Mobile	On-Board Repeater *
Ch.01	467.7500	457.5250
Ch.02	467.7750	457.5500
Ch.03	467.8000	457.5750
Ch.04	467.8250	457.6000

\* These frequencies may also be assigned to mobile stations for single frequency simplex operation.

Based on the CFR the Repeater Output is the 457 MHz Range with the input being 467 MHz, this doesn't always occur and the Output maybe found at 467 MHz and the input at 457 MHz

47 CFR Part 80.373 g(2) allows for two additional pairs, with equipment designed for 12.5 KHz channel spacing.

On-Board Mobile	On-Board Repeater
467.5375	457.5375
467.5625	457.5625

Industry Canada [the Canadian FCC] provides the following channels under RBR-2 [Regulations by Reference]

**Note:** These frequencies are to be used for **internal communication purposes only**, which are necessary for the support of operational requirements of the ship's business.

**Note:** Power output is limited to 5 watts on these frequencies.

Ch.01	457.5250
Ch.02	457.5500
Ch.03	457.5750
Ch.04	457.6000
Ch.05	467.5250
Ch.06	467.5500
Ch.07	467.5750
Ch.08	467.7500
Ch.09	467.7750
Ch.10	467.8000
Ch.11	467.8250

### European UHF Maritime Radio Service Allocation

- Channel A: 467.525<sup>(1)</sup>
- Channel B: 467.550\*
- Channel C: 467.575\*
- Channel D: 457.525<sup>(1)</sup>
- Channel E: 457.550
- Channel F: 457.575<sup>(1)</sup>
- Channel G: 467.525<sup>(1)</sup> 457.525<sup>(1)</sup> T/R
- Channel H: 467.550\* 457.550<sup>(1)</sup> T/R
- Channel J: 467.575\* 457.575<sup>(1)</sup> T/R

### Additional Channels used on UK Ships

- 457.5375
- 457.5625
- 467.5375 (Unoccupied GMRS band-edge channel in US)
- 467.5625 (FRS channel 8 in US)

(\*) Channels allocated to United States General Mobile Radio Service and are not permitted for use by foreign vessels in U.S. waters. <sup>(1)</sup>These frequencies are allocated for use by foreign vessels in US waters. (T/R) Repeater station, First frequency transmitting, second receiving. As updated by the FCC in 2005.

The other bands to search would be:  
150-162 MHz - Business/Marine bands  
162-174 MHz – Yes in the United States this is one of our Government Bands.  
440-450 MHz – Yes the Amateur Band  
450-470 MHz - Don't exclude any portion. See my comments on NCL  
470-512 MHz - Yes the US T-Band [shared Television Band]  
800 Conventional and Trunking [Disney is currently the only Reported 800 TRS]

In Europe, Africa, and Asia the maritime mobile radio service frequencies cover the entire U.S. General Mobile Radio Service band from 462.5375 to 462.7375 and 467.5375 to 467.7375. Ships have been heard using EVERY U.S. FRS/GMRS channel.

While ships normally use these channels in other countries, to do so in the USA is a violation of International Telecommunications Union regulations and treaties signed by the USA. The US National Telecommunications Information Administration is the regulatory authority that specifies what frequencies can be used by visiting ships (under our international treaty agreements) while in the USA.

Many visiting ships unfortunately operate with non-standard systems in violation of ITU regulations severely complicating the interference. Some vessels even operate ship-board repeaters with the repeater inputs on 462.575 and the outputs on 467.575. Some have been using 467.575 as the input with 457.575 as the output.

These non-standard repeaters wreak havoc on the GMRS band. The General Mobile Radio Service is not the only affected radio service. Business radio systems under FCC Part 90 also suffer FSI [Foreign Ship Interference].

There are also New frequencies beginning to appear, under Part 90.75 with Narrowbanding.

457.53125 R / 467.75625  
457.54375 R / 467.76875  
457.55625 R / 467.78125  
457.56875 R / 467.79375  
457.58125 R / 467.80625  
457.59375 R / 467.81875  
457.60625 R / 467.83125  
457.61875 Simplex Only

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## SOUTHEASTERN NEW YORK

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## HOPE Number Nine - NYC

HOPE Number Nine will be taking place on July 13, 14, and 15, 2012 at the Hotel Pennsylvania in New York City. H.O.P.E. stands for Hackers On Planet Earth, one of the most creative and diverse hacker events in the world. It's been happening since 1994.

Join us for three full days and nights of activities, including more of the provocative and enlightening speakers that the HOPE conferences are known for. In addition, we have access to a massive amount of space to put together all sorts of hacker projects and assorted fun stuff. In the past we've had huge hackerspace villages, film festivals, Segway rides, lockpicking villages, a wide variety of vendors, art installations, live radio, vintage computers, robots, ham radio installations, electronics workshops, book signings, and the country's biggest supply of Club-Mate.

Now imagine all of that happening right in the middle of New York City, across the street from Penn Station and down the block from the Empire State Building. It seems impossible, but with the hard work and dedication of our huge volunteer staff, we're able to pull it off. You can also become part of the magic, whether by attending or volunteering to help run the event with us. We also encourage attendees to submit ideas for talks or to suggest projects that we may not have ever thought of before. Please explore and spread the word!

Visit the website for more information:

[www.hopenumbernine.net](http://www.hopenumbernine.net)

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## MILITARY

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*No Column This Issue*

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## NEW HAMPSHIRE

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*No Column This Issue*

MAINE

Loren Fields  
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Greetings, and welcome to this edition of the **Maine Scanner Digest** column! This column will be brief for this iteration.

Jumping right in, it is important to note several changes in:

**Sagadahoc County Sheriff's Office** etc: the coverage situation has been addressed by RCM out of Portland. 4.9 GHz links have been modified, coverage increased with the following simulcast freq plan:

**Sheriff Prime** is 155.685R/155.0775R; pl = 192.8  
**Sag SO Fire Dispatch** = 154.295R/155.955R; pl = 127.3



*HIGH WIRE: Brian Trayhan of Yankee Communications is seen through utility wires as he descends from a tower 80-feet above the ground on the Somerset County Superior Courthouse in Skowhegan in May. The Benton company is installing equipment for wireless radio connections between town municipal buildings. (Ed. note: Rusty Bell, owner of Yankee Communications, helps keep yours truly with all commercial communications needs!) [www.yankeecomunications.com](http://www.yankeecomunications.com)*

## Name the Tower Location Game:



Yes, this is somewhere in Maine...here's another picture:



I'd like to encourage every enthusiast with a camera to "tower hunt" and find out whomever is licensed on the most unique tower in your area. Take a GPS reading and plug it in to the FCC database. Don't forget to get a picture of the tower information and FCC tower/structure number if possible.

Here is another one from the Falmouth area...the base (not showing) is good-sized, also:



**Interesting and apropos links:**

**Franklin County votes on new dispatch center:**

<http://www.onlinesentinel.com/news/Franklin-911-center-vote-remains-tight.html>

**Ogunquit merges dispatch into Wells:**

<http://www.wcsh6.com/news/local/story.aspx?storyid=200975>

**Androscoggin County Commission votes to preserve county dispatching**

<http://www.sunjournal.com/news/lewiston-auburn/2012/05/18/androscoggin-county-commission-votes-preserve-coun/1197378>

**Town support builds for Norway-Paris police merger**

<http://www.onlinesentinel.com/news/Town-support-builds-for-Norway-Paris-policemerge.html?pageType=mobile&id=1&start=1>

**'Covering' over emergency broadcasts during large Lebanon (ME) fire confirmed:**

[http://www.fosters.com/apps/pbcs.dll/article?AID=/20120515/GJNEWS\\_01/705159901/-1/FOSnews010103](http://www.fosters.com/apps/pbcs.dll/article?AID=/20120515/GJNEWS_01/705159901/-1/FOSnews010103)

**Meet me at the Thunderbirds Airshow this August at BNAS:**

<http://www.greatstateofmainearshow.us/>

**Interesting article from Topeka, KS: Radio system would prevent media meddling**

<http://www.policeone.com/police-products/communications/articles/5547382-Radio-system-would-prevent-media-meddling>

**Under "Mysterious Federal Frequencies:"** The United States Postal Service Inspectors have been known to utilize **406.3375, NAC of \$482**. This frequency has been heard throughout central and southern Maine; usage would imply a repeater system; all traffic is encrypted. Those with digital scanners should have this little gem in a scan bank. The question: itinerant, repeater, or both?

**That's all for this edition's Maine column.** Please contact me (Loren Fields) if you are ever in the Augusta, Maine area and would like to talk communications.

I also encourage you FaceBook denizens to visit my [FaceBook page](#) and say "hello!"

Don't forget to patronize the ballot box on 2 November 2010; make sure you vote....

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.*

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**WASHINGTON DC REGIONAL** *David Schoenberger*  
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**Monitoring the 2012 Joint Services Open House**

The 2012 Joint Services Open House (JSOH) was May 19 and 20 at Joint Base Andrews in Prince George's County, Maryland. This annual event showcases military planes, vehicles, and other equipment. It is also a major air show. The Blue Angels was the featured flight demonstration team this year. For the scanner listener, there is much to monitor, and plenty of opportunity to learn about what's happening behind-the-scenes. I suspect most hobbyists are more interested in the civilian and military air communications, but I usually concentrate on monitoring the people on the ground. Most of the land-mobile communications can be found on two trunked systems: the 380 MHz Joint Base Andrews system, and the 700 MHz Prince George's County system.

Personnel working the JSOH use the Andrews system. Talkgroups in the 5xx range are the primary ones used for the air show, but there are several others in use as well. Here is a sampling of some of the talkgroups active this year:

- 301 "mules to radio trailer"
- 321 "bus driver lost marshal"
- 501 Media?

503 Director  
513 Tech  
515 Flightline Security  
519 First Aid/Medical  
533 Announcer/Airboss  
535 "get in tower"  
705 "pickup at squadron"

Note that the 5xx-series talkgroups come in and out of use from year-to-year; therefore, it's a good idea to put one's scanner in "ID Search" or "Open" mode when scanning.

Prince George's County Police (PGPD) and Fire (PGFD) provide support to the JSOH. PGPD coordinates traffic and parking at FedEx Field (one of the shuttle bus locations). PGPD also directs traffic on the roads around Andrews. PGFD handles most of the first aid/medical calls inside the air show. This year, PGPD used talkgroup 2001 for operations at FedEx Field, and 2013 for operations around Andrews. PGFD used talkgroup 2015 for operations at Andrews. Note that most of the talkgroups on the system (including these) are TDMA, and only the PSR-800 scanner can monitor them.

Concessionaires and other logistical support personnel at the show typically use business band frequencies. Here are some that I found this year:

461.0875 [ d606] Concessions  
461.1625 [ d116] Concessions?  
464.5000 [ d023] Shuttle Bus Coordination at Andrews  
466.1375 [ d732] Food

Here is a link to the RadioReference page for the Joint Base Andrews system:

<http://www.radioreference.com/apps/db/?sid=3822>

Here is a link to the RadioReference page for the Prince George's County system:

<http://www.radioreference.com/apps/db/?sid=6341>

For civilian and military air frequencies used by the Blue Angels and other performers, see this RadioReference Wiki page:

[http://wiki.radioreference.com/index.php/Joint\\_Services\\_Open\\_House](http://wiki.radioreference.com/index.php/Joint_Services_Open_House)

Thanks for reading. I'll probably cover some of the many DC-area summer special events for the next column.

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## AMATEUR RADIO

**Robert Gulley AK3Q**  
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**Amateur Radio: Dividing Your Time**  
**By Robert Gulley AK3Q/AAR4IS**  
**Email: [ak3q@ak3q.com](mailto:ak3q@ak3q.com)**

One of the things I enjoy most about the radio hobby is the amount of things you can do connected to radios. Scanning is a daily activity for me since my XYL (wife) not only approves, but really enjoys listening to all the activity around our town. I enjoy shortwave radio as well, listening for distant stations and exploring different cultures through music and news.

I also enjoy catching utility stations, military and civilian aircraft, commercial airlines, and marine/coast guard transmissions. I even listen to beacons at times to (slowly!) decode the Morse signals for location and propagation checks. Just the other night I ran across 3 guys talking in Spanish, and while I could not make out much of the conversation, I was intrigued enough to try to find out who they were. While I cannot say for certain, I think they might have been maritime folks talking ship-to-ship based on their frequency. In trying to track them down I ran across several interesting web sites and tucked them away for future reference. Radio really is a gateway to a lot of related knowledge and information, and I hope in this article to encourage you to explore just a bit beyond what may be your normal routines.

### Adventures Await You!

While this may sound like the beginning of an advertisement in the back of a magazine, I find almost every time I turn on one of my many radios I take a trip into what are for me, uncharted waters. By this I mean that there is always something new to learn, whether it is programming issues with my digital scanners, antenna/propagation lessons and opportunities, or finding new things to listen to in unexpected places.

As an amateur radio guy I am often attuned to news of solar conditions, seasonal propagation issues, or DX opportunities. When it comes to using my scanners, I am learning to bring this same level of interest and curiosity to these bands both as a bridge between amateur radio and scanning, and as a means of extending my reach in both fields.

For example, I have been experimenting with different antennas for scanning since I discovered differences in my band coverage between my 2m/440 radio and several of my scanners. Since the antennas are in relatively the same position on my garage roof, I began to get curious about reception differences. My amateur rig was picking up a lot of civilian aircraft activity that my scanner was missing. I found that quite curious since the discone antenna was only about 6 feet away from the 2 meter antenna, and their height was only a foot or so different. Even the coax is the same on the two antennas, both at

½" diameter and 50' long (overkill for a scanner, I know, but I am a bit of a nut when it comes to transmission lines!). Both radios are good quality rigs, with great sensitivity and full band coverage from the air bands on up to 1.2 GHz.

While I have not discovered exactly why there are significant differences between the radios, I am learning a bit more about my scanners and the differences (and lack of differences) between roof mounted antennas and good HT antennas (Hint: there's not as much difference in real-world use as you might expect if you live near a big city!).

Another crossover with my scanning and amateur radio is in the area of GPS capabilities. I recently obtained a scanner which has some GPS capability when traveling. If connected to a GPS receiver the scanner will update your scanlist to reflect your new location (and no, it's not the Home Patrol or the PSR 800, but if I were rich . . .!). My mobile ICOM rig will also connect to a GPS receiver for some basic APRS functionality, and so I am considering getting one to share between the two radios. If I didn't have this multiple use, chances are I wouldn't ever get it just for one radio or the other; since both radios can use it, I think my birthday would be a nice time to expand my capabilities a bit, don't you?!

### **E-Skip Season**

May-July is a prime time for both amateur radio and scanning due to the fun of an atmospheric condition known as *E-skip*, where signals which are usually only good line-of-sight can bounce along the atmosphere for several hundred miles or more. Signals above 30MHz and up to 440MHz or higher can often be heard hundreds of miles away for brief periods of time during the day. A good bet for scanning for some of these openings is to program a few standard frequencies into your amateur radio, such as 28.425, 50.125 or 144.200, the 10-, 6-, and 2-meter calling frequencies for SSB. For FM signals on your amateur radio or your scanner, program 29.600, 52.525, 146.520. When you hear stations calling on these frequencies you might just be in the middle of a good E-skip listening opportunity, or if you are a ham, a nice opportunity to get some VHF DXing in.

On the scanning side of things, you may want to program some distant repeaters and police/fire frequencies into your scanner for times when E-skip conditions exist so you can pick up transmissions from several states away. Just be sure the frequencies you pick don't have any local counterparts; you might think you are listening to activity two states away when in reality it is something happening just across town!

### **Band Scanning**

Most radios now have the ability to scan ranges of frequencies or collections of channels held in banks. Some allow banks to be linked together, and this gives you the opportunity to scan a range of frequencies more quickly. I find that while it is more work initially, programming in the frequencies I want to scan works better than scanning through a search range. Search ranges are great for catching things you don't know about, but when scanning for specific services usually knowing the typical frequencies in use will be much more efficient. It takes a scanner or an amateur rig a long time to scan, say, air bands between 118 and 399MHz. and many of the frequencies will be empty. (A nice resource for aircraft frequencies which you can program in can be found at: <http://www.angelfire.com/wi/scanner/generalaviation.html>)

Speaking of band scanning, keep in mind many of the modern amateur radios for 2 meters and 440 allow for a fairly broad range of receive frequencies, so police/fire and services such as taxis and trucking/towing services can be heard in addition to local repeaters. If it were not for some of this traffic there would be many trips where I would not hear a thing on my ICOM mobile; the 2 meter and 440 bands are sometimes really dead around here.

### **Find a Mountain**

Finally, something you might want to try if you have never done so before is to find a mountain in your local area and climb that baby with a good handheld scanner or 2-meter HT. Okay, you may not have a mountain (we don't here in the Ohio Valley!), but there are very likely high spots near or just outside of the area you live in which could provide for some interesting listening opportunities. There are numerous lists of amateur repeaters for any region of the country, and radio reference's database will allow you to search for frequencies and services based on zip codes, so you will likely find more things to listen for than you can imagine. Getting some height can allow even a simple handheld to hear far more than you might be able to hear at your home location, and just getting away from the city noise might do wonders for your listening pleasure.

Even going to a new part of the city in which you may not be used to traveling can open up some listening opportunities. Signals over 30MHz have to rely mostly on line of sight, so almost any distance traveled can open up new horizons for almost any type of radio listening. The main thing is to break out of your routine now and again, and listen to new things. A friend of mine uses his lunch hour to go to a local airport and listen to the tower/flight comms while he eats his lunch. He enjoys just watching the planes take off and land while hearing a bit of the behind-the-scenes communication going on in the process. Sounds like a good plan to me!

Until next time, may all the best signals be yours!

73,  
Robert AK3Q

## What Did We Do Before There Were Scanners?

*By Craig Leventhal N3TPM*

*With technical help from Andrew Leventhal*

I remember as a small boy seeing the word "POLICE" on the upper end of the dial, above 1600 khz on an old am radio at my aunt's house. I was told that the police broadcast all points bulletins there so that citizens could be kept informed of important developments during an emergency. This was my introduction to the monitoring part of the communications hobby. That old radio now resides in my home.



The Country Belle on my wall. Police calls could be heard above 1600 kHz

Now whenever I pass by it, I wonder what hobbyists did before there were modern scanning receivers. I didn't need to look much further than my own basement for the answer. I have been collecting odd pieces of communications gear for many years.



Some pre-war/ early post war Hallicrafters radios  
The S28-S36-S37 collectively covered .54-210 MHz  
This pre-war radio featured FM reception up to 50 MHz

After WWII and before the wide spread availability of television, radio was the high-tech mass medium of choice. It makes sense that the police used it for disseminating emergency information. As advancements in technology came along by the mid to late 1950s, most public safety departments had switched to the vhf and uhf bands and used fm instead of am. The superior qualities of fm versus am were known and understood before the United States entered WWII, and were well proven in battle by the wars end. In the immediate post-war period there were few vhf receivers available and many of those were war surplus units such as the BC603/683. Some manufacturers simply revived or updated some of their pre-war designs and gave them new model designations. Others had units in development that were withheld by government restrictions when the U.S. entered the war. Several prototype receivers had to be recalled by the

manufacturer to prevent them from possibly falling into enemy hands. One of these was the Hallicrafters S-27C which covered frequency ranges up to 210 MHz in AM, FM, and CW modes.



As U.S industry converted from wartime to civilian production, radio amateurs were once again allowed back on the air. The amateur community received a gift of sorts from Uncle Sam in the form of new frequency band allocations that included 50-54 MHz (6 meters), 144-148 MHz (2 meters), 430-450 MHz (70 cm). This meant that amateurs were free to build equipment and experiment in these new bands.

The potential commercial uses for the vhf and uhf bands did not go unnoticed by electronics manufacturers who were eager to get back into the production of profitable civilian equipment. Some companies like Hallicrafters and EF Johnson made both commercial and amateur radio gear.

So what might a typical hobbyist's home monitoring station setup have looked like? How about a mobile setup? I will start with the home monitoring station. Back then, as now, if you had deep pockets, you could get the latest, top of the line equipment. But for the average hobbyist your station would likely include at least some war surplus gear along with a more modern receiver or two. Since shortwave radio had played such a prominent role during the war and was a popular pastime before the war, it would be only natural that a good shortwave receiver would be the foundation of any monitoring station. Receivers such as the BC-342, BC-348, BC-224, BC-652, and TCS and others were available for as little as \$10 from surplus outlets. Surplus vhf sets would have included the BC-603, BC-683, which had a frequency range from 20-39 MHz.



This station dates from about 1949. This station dates to about 1955. This station is from 1960

By the early 1950s, mass-produced vhf monitor receivers were available for both home and automotive use. Examples include the Monitorradio (Regency) AR series which covered vhf-air (108-136 MHz), vhf-lo (30-50 MHz), vhf-hi (150-175 MHz). Hallicrafters initially reintroduced a few prewar models with vhf capabilities, but by the 1950s were offering their "Civic Patrol" series which included models for vhf-lo, vhf-hi, vhf-aircraft. These units were offered into the early 1960s.



Monitoradio AR2  
 Monitoradio Police Alarm PR9  
 Hallicrafters S-94 Civic Patrol

By the mid 1950s Monitoradio had introduced their "MR" series which included the MR-32, 33,10 and the DR-200 which was an advanced unit that offered both vhf-lo and vhf-hi in a single radio. There were also single channel, crystal controlled versions of these units. The "MR" series went through some design revisions between 1955 and 1963, but kept the same model numbers which led to some confusion. The MR-10D, MR-33B, and AR-136 were the last of the table top series.



DR-200 Early version  
 MR-10, 33, MRC-33  
 DR-200 Newer version  
 MR-10D, 33B, AR-136

By the mid 1960s the solid state writing was on the wall, and transistors replaced the vacuum tubes used in earlier designs. Some familiar names faded away and were replaced with names like, Radio Shack, Lafayette Radio, Ross, Standard, Sharp, Panasonic, Channel Master and others. Many off shore companies made their first appearance in the U.S at this time. The Patrolman series from Radio Shack, and the Guardian series from Lafayette Radio, each offered portable models featuring various combinations of vhf, uhf and shortwave bands in addition to the am and fm broadcast bands.

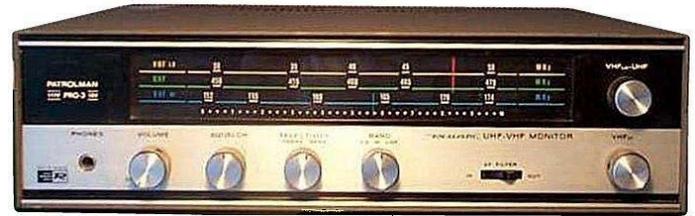




Patrolman SW-60  
Lafayette Guardian 6000

Ross RE-8000

Our society was becoming more mobile, thanks in part to ad campaigns like "See the USA in your Chevrolet..." and newly expanded highway systems. As a result our demand for portable electronics increased exponentially. The demand was such that fewer table top receivers were produced compared to the number of portables. There were some exceptions and once again the leaders here were Radio Shack, and Lafayette Radio along with others.



Lafayette PF-300  
Sonar FR-102  
Realistic Pro-3

But it was clear that the future was in solid state portable radios and then, as now you get what you pay for. With an expanding market and low cost off shore labor, everyone wanted to get into the act. New names like Ross, Channel Master, Standard, Electro brand, Sharp, Sanyo, Montgomery Ward along with some well known brands like Sears, Sony, and General Electric all offered radios with one or more of the "action bands" as they had become known.. Some manufacturers like Sanyo and Hitachi produced a few models that were sold to other makers who put their own name on them.





Sharp FY-410 Readers Digest RDA-127  
Readers Digest model:???

One noteworthy series of radios that bridged the gap between tunable receivers and scanners was made by General Electric. The "Searcher" line included at least three models that I am aware of that offered 4 or 6 tunable preset channels that could be scanned. One model includes vhf, uhf and the am/fm bands.



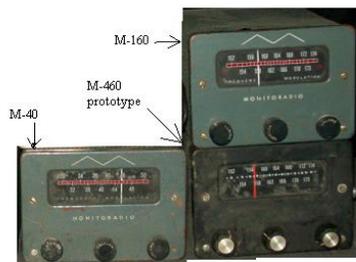
GE Searchers

With the advent of digital display readouts and fully programmable scanners by the mid 1970s, these monitor receivers were relegated to a footnote in history and a few diehard collectors like myself. There was a last hurrah of sorts for these wonderful radios. In the late 1970s, Zenith took one last shot with their Trans-Oceanic portable called the R-7000. And what a shot it was. While primarily a top notch shortwave receiver, it did include the vhf-hi and aircraft bands and performed better than many similar units.



Zenith Trans-Oceanic R-7000

For mobile stations there were few options in the immediate post war years. War surplus receivers like the BC-603,683 were originally intended for tanks and other armored vehicles, but were impractical for use in the average late 1940s family sedan. Some amateur radio operators did persevere and found ways to adapt these for civilian mobile use. By the early 1950s Monitorradio had their "M" series receivers available. The "M" series included mobile receiver models M-51, M-101, which were designed for the 6 volt automotive electrical systems that were standard at the time. Around 1956 the automotive industry converted from 6 volt to 12 volt electrical systems. To keep up with this change, the radio manufacturers redesigned their equipment. Monitorradios' new "M" series units were the M-40 (vhf-lo) and the M-160 (vhf-hi). There were plans for a model M-460 which would have been for the 450-470 MHz uhf band, but only a few prototypes were built before the line was abandoned.



M-51 M40-M160-M460

In the late 1960s to early 1970s Lafayette Radio was still offering tunable mobile receivers along with a companion CB radio as part of their "micro" series.



Lafayette Micro P23-P50-P100-P450

As I was growing up we had a family friend who was a radio hobbyist. By day he worked as an English teacher, and moonlighted as a press photographer for the newspapers. He had this uncanny knack for arriving on the scene before anyone else and getting the best photos. In a few instances he got there even before the first responders, which earned him a nickname: "The Ghost". His secret was his mobile monitoring setup of vhf / uhf receivers. As research for this article I contacted him and asked him about the equipment he used. The response I received was unexpected and arrived by way of UPS weighing a hefty 43 pounds!



43 LBS of Monitoring History- Still Working!

His original 1959-1970 mobile station had been removed from his 1957 Chevy Belair when he sold the car and stored in his garage. When he told his wife about my call, no doubt she “suggested” that he send the radios to me and empty space in the garage. So this is what his and perhaps other late 1950s mobile stations might have looked like.



This was High Tech for the time

You will notice that there are three Monitoradio receivers pictured. The odd ball dark colored unit is the uhf M-460 prototype mentioned earlier. After some cleaning and ohmmeter checks, I gingerly and slowly applied power and all the units came to life and worked! Not bad for 53 year old radios. Try that with an iPhone. In 1970 “The Ghost” treated himself to a new Chevy Nova. He was still moonlighting as a press photographer so he installed the next generation of monitoring equipment. That equipment was sold by Lafayette Radio as a package along with a matching cb radio. When he retired, he sold his equipment, but I have the same units in my collection. What a difference 10 years makes in technology!



What a difference 10 years makes...!

By the mid 1970s, scanners were affordable and compact enough for base or mobile use. Within a few short years most manufacturers had dropped these receivers from their product lines. The mass market retailers like Radio Shack, Lafayette Radio, and Sears continued to offer at least 1 or 2 models into the 1980s. Here are some vintage ads and catalogue pages.



**Patrolman® Portables — The “Action” Never Stops!**

**6 BANDS**  
**99<sup>95</sup>**



Available Oct. 30, 1975

**3 BANDS**  
**59<sup>95</sup>**



**Hear the Real-Life Drama of Your Community**

- 6 BANDS** • UHF • VHF-Hi • VHF-Low • Aviation • FM • AM

• All-Band Fine-Tuning! Adjustable Squelch! • Headphone Jack!

Patrolman-6. The portable with EVERY POLICE BAND! You'll hear police and other emergency service calls, 24-hour National Weather Service info on 162.40 or 162.55 MHz, cabs, trains, trucks, even aircraft and local airports. And you get "communications receiver" features: fine-tuning to separate close-together stations, 1/4" headphone jack, squelch for silent standby, AFC on AM, slide-rule dial with push-to-light button, telescoping UHF and VHF antennas plus a jack for external antenna. Bands: 450-512 MHz UHF; 144-174 MHz VHF-Hi; 108-135 MHz Aviation; 30-50 MHz VHF-Low; FM and AM. 10x 11 1/4". With AC cord, U.L. listed. Uses 4 "C" cells. 12-769 ..... 99.95
- 3 Bands on a Budget — UHF • VHF-Hi • AM**

• 5 Tuned UHF/VHF IF Stages for Real Station-Pulling Power!

Patrolman-3. A rugged, high-performance portable. Hear action-packed VHF frequencies and "metro area" UHF broadcasts. Tune police, fire, radio telephone and 24-hour National Weather Service reports, plus AM. Squelch control silences speaker between VHF or UHF calls. Easy-to-read "rolled-film" style dial. 1/4" headphone jack. Telescoping swivel antenna for VHF, built-in UHF/AM antenna. AFC prevents FM drift. AC/battery switch. Bands: 450-512 MHz UHF; 144-174 MHz VHF-Hi; AM. With AC cord, U.L. listed. Uses 4 "C" cells. 8 1/2 x 6 1/2 x 2 1/4". 12-757 ..... 59.95
- 5 Bands Plus Instant Weather**

• Variable Tone Control • Shortwave and Weather Fine-Tuning!

Weatheradio®-5. Quality you can see, feel—and hear. Just press the button for 24-hour National Weather Service on 162.40 or 162.55 MHz. Tune in international SW, police-emergency calls, aircraft and local control towers. FM and AM. VHF squelch control, 1/4" headphone jack, external antenna jack, telescoping SW/VHF/AIR/FM antenna, 3 1/2" speaker. Bands: 144-174 MHz VHF-Hi; 108-135 MHz Aircraft; 6-18 MHz SW; FM and AM. 10 1/4 x 8 1/4 x 3 1/2". With AC cord, 4 "C" cells. U.L. listed. 12-755 ..... 79.95

144 For Extra-Long Battery Life Use Radio Shack's ENERCELL® and NOVA CELL Batteries — See Page 104

## Tune In "The Action" with a Multi-Band Portable

# PATROLMAN®

lets you hear it all!

**5 BANDS 79.95**      **9 BANDS 149.95**

*There's excitement on the air!*

**Police! Fire! Weather! Sports! Music! More!**

- Tunes UHF, VHF-Hi, VHF-Low Plus FM and AM!
- Squelch Control! • IC Audio Power Output!
- 5 Tuned VHF-IF Stages! • 1/2" Headphone Jack!
- 3 1/2" Speaker! • External VHF/FM Antenna Jack!

**Patrolman-9.** A separate UHF front end, an IC and 56 solid-state components give you sensational station-getting power. Two starwave bands pick up foreign broadcasts and Hams. Three VHF and UHF bands keep you informed of what's happening locally, including National Weather Service on 162.40 or 162.55 MHz. Hear planes in flight on the Aviation band. Monitor ship-to-shore calls on marine FM and AM, too. AFC for no drift FM, 1/4" headphone jack, squelch on UHF/VHF, push-on dial light, built-in antennas, UHF antenna jack instantly switches to batteries if AC fails. Bands: 450-470 MHz UHF; 147-174 MHz VHF-Hi; 108-135 MHz Aviation; 30-50 MHz VHF-Low; 412 and 12-22 MHz SW; 1.64 MHz Marine FM; AM, 11-14.7 MHz 3 1/2". With AC cord, 4 "C" cells, U.L. listed. 12-759 149.95

**Patrolman-6.** What a value! Lets you hear police-emergency service broadcasts, National Weather Service reports on 162.40 or 162.55 MHz, taxicabs, planes and local control towers. All this, plus everyday FM and AM broadcasts, too. And there are plenty of features for great reception. Five tuned IF stages on VHF/FM, triple-conversion on UHF, plus a ceramic filter for real station-pulling power and clearest sound. Squelch control silences speaker between UHF and VHF calls. And there's a tone control, slide-rule tuning with lighted band indicators, separate telescoping antennas for UHF and VHF/FM, built-in ferrite AM antennas. Jacks for external VHF/FM and earphone. Bands: 450-512 MHz UHF; 147-174 MHz VHF-Hi; 30-50 MHz VHF-Low, FM and AM, 6 1/2"x3"x3 1/2". With AC cord, U.L. listed. Uses 4 "C" cells. 12-773. 79.95

146      There's a Radio Shack Store or Dealer Near You — Wherever You Are

17 F 02838W Shpg. wt. 4 1/2 lbs. Net 28.95      17 F 81020 Shpg. wt. 2 lbs. Imported. Net 12.95

## Our Top-Quality "Guardian 6600" AM/FM/LW-Police-Fire-Weather-Marine-Aircraft Portable Radio!

**TUNES** 1 LW: 190-380 kHz Beacon      3 MB: 1.6-4.0 MHz Marine  
2 AM: 540-1600 kHz      4 FM: 88-108 MHz  
5 AIR: 108-136 MHz AM/VHF  
6 BANDS 6 POLICE 147-174 MHz FM/VHF High Band Public Service

**Our Pocket "Guardian Micro 2" Police-Fire-Weather-AM Radio**

**\$14.95** with battery & earphone

**Radio Direction Finder** 180° Rotatable Ferrite Loopstick Antenna for LW, AM, and MB Reception PLUS Direction Finding on these Bands.

**Signal Strength Tuning Meter/Battery Condition Meter.**

**Only \$99.95** with earphone and batteries

Be where the action is! Listen to: Ships at Sea, Aircraft, Local Police, Fire, and U.S. Weather Forecasts, and Standard AM and FM broadcasts. Individually tuned circuits provide extra sharp reception on each band. With batteries and AC line cord for portable or home use. Dependable solid-state circuitry, Automatic Gain Control, precision slide rule dial with logging scale, telescoping whip antenna, and a big 4" speaker. Size Adjustable Squelch Control

## Monitoradio Special Purpose VHF

FOR: State, County and Municipal Police—Fire Departments—Civil Defense—Trucking—Railroads—Highway Maintenance—Forestry Conservation—Petroleum and Industrial Activities.

**MODEL DR-200 2 BAND TUNABLE FM RECEIVER**      **TUNABLE FM RECEIVER • MR-10B Tunable 152-174 MC • MR-35B**

**Only 200.00** No Money Down      **Only 84.95**

• Covers 30-50MC and 152-174MC • Tunable and Crystal Controlled

Extra sensitive fire department try use. Ideal for mobile applications. Sensitivity up to quieting. AGC between 100 & 8 watt output. night sound. 11.1x7.7x4.1. AC only. U.L. MODEL MR-10B 40 W BATTERY MODEL MR-35B 40 W BATTERY

## UHF HIGH/LOW POLICE! VHF AIRCRAFT! FM & AM!

**PATROLMAN-6 AC/BATTERY SQUELCH CIRCUIT**

**89.95** Get it on Credit

**LISTEN TO REAL-LIFE DRAMA AND EXCITEMENT!**  
Only Radio Shack Sells the Patrolman-6 Portable!

The ONLY 6-band portable that gets ALL the action! Police calls/emergency weather reports on high (147-174 MHz) & low (30-50 MHz) VHF bands, plus UHF (450-470 MHz), VHF aircraft band (108-135 MHz) brings in area planes, control towers. Fine tuning on every band; external antenna jack, pushbutton dial light. With 4 "C" cells, AC cord, 11x10x4", 12-756. U.L. listed. Shipping weight 7 lbs. 89.95

Adjustable Squelch Control      AC or 4 "C" Cell Battery Operation

1/2" Jack for Professional Headphone      Separate Telescoping Antennas for VHF & UHF

Pushbutton Dial Light      Fine Tuning on All 6 Bands      5.95

Radio Shack Celebrates 50 Years of Value, Service and Reliability 179

solid state design offers top reliability and instantaneous monitoring of, and response to, emergencies. Built-in universal power supply assures continuous monitoring under any conditions since it operates on both 117VAC and 12 VDC (negative ground only). The

## LAFAYETTE POLICE AND FIRE 3-BAND FM RECEIVER

**3 BANDS:** 30-50 MHz, 144-174 MHz, 450-470 MHz.      **2 Crystal Positions in Each Band**

**ONLY 186.00+** No Money Down

**CRYSTAL CONTROL PLUS TUNABLE RECEPTION ON ALL BANDS**

- For 117 VAC Base Station and 12 VDC (Negative ground only) Mobile Operation
- 2 IC's + 3 FET's + 20 Transistors + 11 Diodes
- Sensitivity: 1 µV. For 20 db Quieting
- Adjustable Broad and Sharp Selectivity On All 3 Bands
- Illuminated Jewel Indicators for UHF, VHF and Low Band Modes
- Headphone Jack for Private Listening

**Model PF-300**

An outstanding universal FM monitor receiver for the 450-470 MHz UHF band, 144-174 MHz VHF band and 30-50 MHz low band. The PF-300 is fully tuneable and can be crystal controlled for reception of any two frequencies on all 3 bands. Receives U.S. Weather Bureau reports on 162.55 MHz, in parts of the country where they are broadcast. May be tuned to either wide or narrow-band razor sharp selectivity. Front panel features large tuning dials—one for 144-174 MHz and one for 30-50 and 450-470 MHz; concentric selector switches that select the desired band and selectivity; switches for crystal or tuneable reception for each band; and variable squelch control that silences the receiver during no signal conditions. The PF-300 also features a 100% built-in speaker, phone jack for private listening, loop receiver antenna, and UHF, VHF and Low Band antenna jacks. A built-in universal power supply permits operation on 117 VAC and 12 VDC (negative ground only). Size: 13 1/2"x10 1/2"x4 1/2". Imported. 99 G 28163WX Less Crystals. Shpg. wt. 13 lbs. Net 186.00

Ground Plane Antennas. Shpg. wt. 4 lbs. Net 8.50

40 G 01178W 30-50 MHz Net 1.50

40 G 01160W 130-174 MHz Net 2.50

40 G 01202 450-470 MHz

So what *did* we do before there were scanners?



The Answer...

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## PHILADELPHIA METRO

*Position Open*

### PA STATE POLICE RADIO UPDATE

PSP has decided to buy Motorola APX 7500's (dual-band, P25-capable) for all vehicles. Depending on the area and interoperability needs, they will either be VHF/UHF or VHF/800. One of the motivating reasons for keeping a VHF radio was to maintain communication with local agencies, with the bulk being on VHF in most rural areas at present. With the dual-band radios, they will have even more interop with the locals who are on UHF or 800.

Since OpenSky is now being administered by PSP, they are going to consider it "primary" and the VHF system "secondary" for voice.

The Motorola radios will start shipping in June, and they anticipate having all of the mobiles installed before the end of the year.

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Since its inception in 1996, the commonwealth's public safety radio network (PA-STARNet) has been housed in the Office for Information Technology (IT) within the Governor's Office of Administration. What began as an IT project has grown over the years into a full-fledged organization.

Since PA-STARNet is now operational and firmly established, Commissioner Noonan and I have recommended, and Governor Corbett has agreed, that administration of the network, including the 800MHz Open Sky radio system, be transferred to the Pennsylvania State Police (PSP) effective July 1, 2012. We believe that responsibility for a public safety asset such as PA-STARNet is best entrusted to an organization whose core mission is public safety.

We understand that many agencies use the system and have made significant investments in equipment. I can assure you that the system will continue to serve your agency's needs as it has in the past, and that Commissioner Noonan and the other professionals at PSP are committed to providing high levels of service and to making ongoing improvements to the system.

Your agency will continue to participate in the PA-STARNet Operations Committee, and the commonwealth will continue to promote executive governance through the Public Safety Communications Council.

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### AIR MEDICAL UNITS

The following website contains good information and maps of air medical programs throughout the USA. We've included some air units that operate in the Philadelphia metro area as well as those in central and northern New Jersey.

<http://home.comcast.net/~benandchrisie/medhelos.htm>

<http://www.adamsairmed.org/>

[http://services.dlas.virginia.gov/user\\_db/frmjchc.aspx?viewid=414](http://services.dlas.virginia.gov/user_db/frmjchc.aspx?viewid=414)

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### CENTRAL - NORTHERN NEW JERSEY AREA

#### AirMed 1 / N135CM

Hackensack University Hospital

Base: Greenwood Lake Airport, Greenwood Lake, NJ

#### Atlantic AirOne / N314PH

Atlantic Health Systems, Atlantic Ambulance Division - 463.1750 156DPL

Base: Great Northern Heliport, Netcong, NJ

#### Atlantic AirThree / N303PH

Atlantic Health Systems, Atlantic Ambulance Division - 463.1750 156DPL

Base: Mountain Creek Ski Resort, Vernon, NJ

#### MONOC-1 / N456MT

Monmouth Ocean Hospital Cooperative Corporation - 462.950 210.0PL

Base: Robert J. Miller Air Park, Berkeley Township, NJ

#### NorthSTAR (NJSP) / Currently Assigned: N1NJ

New Jersey, State Police, JemSTAR Program - NJSP Trunked TG26832

Base: Somerset Airport, Bedminster, NJ

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## PHILADELPHIA METRO AREA

### Atlantic AirTwo / N311PH

Atlantic Health Systems, Atlantic Ambulance Division -  
463.1750 156DPL

Base: Millville Municipal Airport, Millville, NJ

### Jeffstat 1 (aka: LifeNet 62) / N137LN

JFK Washington Township Hospital - Phila. Sunshine VHF  
SMRS LTR Trunked TG0-20-165

Base: JFK Washington Township Hospital, Washington  
Township, NJ

### Lifenet61 / N424MB

Christiana Care Health System - 160.020 156.7PL  
Operations Base: New Castle Airport, New Castle, DE /  
Flight Base: Christiana Hospital, Newark, DE

### Medevac 2 / N116MB

Lehigh Valley Hospital System - 451.875 162.2PL  
Base: Stroudsburg Pocono Airport, East Stroudsburg, PA

### Medevac 3 / N102H

AtlantiCare MidAtlantic Medevac PA - 155.220 136.5PL  
Base: Limerick, PA

### Medevac 4 / N7062J

Lehigh Valley Hospital System - 451.875 162.2PL  
Base: Woodbine Municipal Airport, Woodbine, NJ

### Medevac 5 / N955ME

AtlantiCare / MidAtlantic Medevac NJ - 155.220 136.5PL  
Base: South Jersey RMC, Vineland, NJ

### PennSTAR 2 / N62UP

University of Pennsylvania - 155.385 100.0PL  
Base: University of Pennsylvania Hospital, West Chester,  
PA

### PennSTAR 5 / N65UP

University of Pennsylvania - 155.385 100.0PL  
Base: University of Pennsylvania Hospital, Lehighton, PA

### SouthSTAR (NJSP) / Currently Assigned: N9NJ

State of NJ, State Police, JemSTAR Program - NJSP  
Trunked TG26800

Base: Hammonton Airport, Hammonton, NJ

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## ILLINOIS

*Mike Dickerson*  
[ScannerDigest@gmail.com](mailto:ScannerDigest@gmail.com)

I always seem to come up with a story idea last minute or I forget to write it down. I am actually sitting down and writing this one out quite a bit ahead of time. There has been some discussion around the state of Illinois about some methods for cutting the budget and consolidation of Illinois State Police communications centers. The

information being provided via the media states that Governor Pat Quinn wants to end dispatching at 16 of the 20 state police district offices. The proposed facilities affected include: Pontiac, Ashkum, East Moline, Carmi, Ullin, Metamora and Effingham. Calls for those districts would be handled by Du Quoin, Springfield, Sterling, and Des Plaines. They expect about 40 layoffs as part of the move, and the initial cost of construction and upgrades at the 4 remaining centers will cost the state about 15 million dollars. Many concerns have been raised such as how will this benefit the public and will it actually save the state money. The coverage areas will increase, and without extra dispatch staff a dispatcher normally dispatching 20 or so cars at a time in 5-6 counties could see an increase to 60-70 officers covering 31 counties for D13 Du Quoin, which covers 7 counties, with the addition of D12 Effingham's 10 counties, D19 Carmi's 7 counties, & D22 Ullin's 7 counties. There are 102 counties in Illinois. The dispatcher would be handling calls for I-57 from Effingham County South to the state line, I-70 from Indiana to Bond County, I-64 from the Indiana line West to St Clair County. Along with other major US Routes including US RT 40, US RT 45, and US RT 50, along with several state highways. I did put together some stats from the 2010 Census data for Sq. miles of each county then by district to the total coverage area by the proposed centers, and here there are if you care to follow. District 12, from Effingham currently covers 4,782.78 sq miles, District 19 in Carmi currently covers, 4,192.2 sq. miles, District 13 in Du Quoin currently covers 3,670.01 sq miles, and District 22 Ullin covers 2,024.53 sq miles of land. If you take all those numbers that gives us an area of 14,669.52 sq. miles. And just to add to that the total land area of the state of Illinois is 57,914 sq miles.

State consolidated dispatch centers are not a new thing, Indiana, and some of the other neighbors to Illinois have just such. Although not in such low numbers, one dispatch center might cover two districts, not 4-5 districts. No one can really say how this system will work or even it is will happen. There are certainly concerns all around the table, except the ones who pushed for it. How will the facilities be staffed, will their be enough staff for all the officers, will officers get the help the need when they request, will it affect the ISP districts and patrol areas? There are many questions which will need to be answered before the plan it set to being. And I am sure many more will arise. I will continue to try and follow this situation as best as I can and share the information I find. Illinois saw another former Governor off to prison in the middle of March. Former Governor Rod Blagojevich was sentenced to 14 years in federal prison, following an investigation and court proceedings related to the allegations he tried to sell Former Illinois Senator Barack Obama's senate seat . Blagojevich reported to Ironwood, CO federal prison to serve his time. Prior to Blagojevich, former Governor George Ryan was sentenced to serve time for a scandal he was alleged to have been involved in while Secretary of State in Illinois.

Changing directions now to communications, why we are here. Effingham County, IL has been having interoperability issues, and brought it to the 911 Board recently wanting them to get everyone on the same page. The County currently operates on 3 different systems, the Sheriff's Department and some of the smaller police agencies dispatched by the Sheriff's Department utilize an 800 MHz UHF trunked system which has been in place for some time, the City of Effingham recently migrated to Starcom21, the statewide digital system, and then the county fire departments are all VHF communications. Officers from Effingham County, have pushed for some sort of resolution on the side of safety. Each agency has their own reasoning behind the use of what they are using. The Effingham Fire Department for example in the past used the UHF trunked system as did the Effingham Police prior to switching to Starcom. The Effingham Fire department went to a VHF repeater system. This is another issue I will follow and update.

UHF vs. VHF has long been a debate, which there is no clear solution; some times VHF works well and other times UHF works better.

And again with more radio related information the folks in Washington have approved a law which rolls out the Nationwide Public Safety wireless communications network, in exchange for this there was a down side. The 11 metropolitan areas where the T-Band UHF segment is used for public safety has to be returned to the FCC for auctioning. Current users will have I believe it was stated 9 years to move to other frequencies. Those currently using the T-Band for public safety communications requested a waiver on narrowbanding, due to the fact that they will have to narrowband by the end of this year, and then change channels in the coming years. The request is not likely to be approved given some of the press release comments.

And that ends this contribution. Hope to be able to bring you more next quarter.

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At the original time of my submission for this newsletter, not a lot has changed. The state of Illinois has still been discussing the consolidation issues concerning the Illinois State Police Dispatch centers. The budgets have been adjusted in other areas and no timelines have been published on the moves.

I have been advised that the frequencies which were once used by Walmart, 154.570 and 154.600 the MURS frequencies, are no longer active in some areas. The radios appear to be smaller, and some appear to be the same models that have been seen in the past. My guess is that they have moved to UHF in some areas, or changed to other frequencies which they are licensed nationwide.

Not sure why the change, it could be just a change due to availability of replacement radios and batteries. I did see at one Walmart service desk someone using a base style Ritron Jobcom radio with rubber duck antenna. I will continue to try and find out more details, and update as much as I can. If anyone has any information to share please email me so we can let others know!

There have been some laws passed which will benefit Illinois Amateur radio operators and affect others. One such law which passed both houses on 5/22/2012, Amends the Illinois Municipal code, and provides that a municipality shall not adopt or enforce an ordinance or resolution after the effective date of the amendatory Act that affects the placement, screening, or height of antennas or support structures that are used for amateur radio communications unless the ordinance or resolution: (i) has a reasonable and clearly defined aesthetic, public health, or safety objective and represents the minimum practical regulation that is necessary to accomplish the objectives; and (ii) reasonably accommodates amateur radio communications. Limits home rule powers. Effective immediately. For more information readers can search for Illinois HB 1390.

Another new bill making its way towards a law, is one which restricts the use of a cell phone yet again. This time you are not allowed to use your cellular phone within 500 Feet of emergency vehicle lights which are activated. This is an effort by Illinois to cut down on distracted driving in emergency scenes. Illinois already has an electronic device law which makes it illegal to use your cell phone without a hands free device in school and construction zones. Illinois law also prohibits the sending or receiving of text and email messages while driving.

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## **EASTERN PENNSYLVANIA**

Steve Bower, Jr.  
[Stevescan60@yahoo.com](mailto:Stevescan60@yahoo.com)

Welcome to this edition of the Scanner Digest, Apologize for not having any articles the last couple issues but my time when in front of the computer has been mostly work related or paying bills. Not much going on around the region to speak of other than counties putting the crunch in to be "Narrowband" Compliant by next year which will help the spectrum but also make some business rich at the same time. Lehigh County is slowly getting the stations to switch over and from my understanding is splitting the cost.

City of Allentown is operating the GE Trunk system, although really have not been doing my home work but the talk of Police going to the "Pro voice" system could prove to be interesting. The VICE Squad and few other agencies are already using that side of the system. Police were still cross banding from 800mhz to VHF which once the old systems stop working they will not repair them.

Allentown Police F-1 158.7900 PL186.2  
Allentown Police F-2 159.0900 PL186.2 Scope  
Allentown EMS 155.0400 PL186.2

City of Bethlehem is now digital and using Project 25 Phase I system the frequencies have changed to: 851.1375, 851.8000, 852.0750, 852.8250, 853.5500 & 853.8000 MHz

The talk Group identifications have also changed and are being updated under radioreference.com

Berks County has been talking once again of switching over to the 700 MHz trunk system, no update on this change has been confirmed as of yet. Getting off the low band system for fire would be a good change for the county since most companies utilize the VRS (Vehicle Repeater Systems) and have UHF or VHF portable radios. Northampton County has switched all communications with the exception to alerting over to 500Mhz. 154.3400 PL136.5 is Alerting General 154.055 PL186.2 is for Alerting North.

Looking to see what the readers want, been doing this for some time and a lot of information is available to you at your finger tips with the www. And numerous other applications on our cell phone now a days. Text alerting and also different breaking news agencies make it easier for us to get up to the minute alerts.

We started a Facebook page for Lehigh County: to find the URL search Fire/Ems alerts Lehigh County and even Fire/Ems alerts of Carbon County we try our best to update calls.

Hopefully next issue will have more updated information, please contact me via email with any suggestions, until next time as always be Safe & Take Care!

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## MASSACHUSETTES

*Peter Szerlag*  
[zerg90@gmail.com](mailto:zerg90@gmail.com)

Lots of radio changes for Massachusetts communities. Lets get right to them.

Waltham PD - now on 470.5125 R with NAC 512 - secondary channel is now 453.8375 R with NAC 837

Waltham FD - now on 470.1125 R with 482.225 R as the secondary channel

Newton FD - primary channel is now 482.9625 R with 483.4625 R as the fireground channel

The Boston Hospitals Disaster Net on 155.28 is being upgraded. 155.115 seems to be the new channel (with P25 transmissions). Hospitals in Everett and Cambridge have been added to the Net.

Lowell Transit has switched its 453.575 R channel to MotoTbro emissions.

The State is licensing Vtac channels all over eastern Massachusetts presumably for disaster operations.

I finally figured out that 173.5125 is the input to the Hanscom AFB 166.225 repeater. Hanscom AFB also seems to have a phone patch on 164.70 using P25.

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June 2012 - pending radio changes

Trinity Ambulance Service in Lowell seeks to add 453.5625 R

Saint James Real Estate seeks to license 461.15 R at 10 Saint James St in downtown Boston. Back in 2010 I heard someone testing a fire alarm system on the 40th floor of some building on this channel.

Pembroke FD seeks to add a 460.2875 repeater at the water tank at 303 High St and a 460.4625 repeater at the water tank at 196 Oak St. The 460.2875 repeater at Fire HQ is being deleted.

SwissPort at Logan International Airport seeks to add 461.9875 R

Marblehead PD seeks to add 460.0625 R + 460.1125 R + 460.1625 R + 460.20 R to their existing 472.3375 R

Rockport is operating on a 155.145 repeater - the input might be 158.775 per the pending FCC license

Marlboro DPW seeks to add 156.2175 as the input to their 151.115 channel. They also seek to add 159.00 for mobiles.

1 Federal Street in Springfield wants to add 452.2125 R for security ops

Oxford DPW seeks to add 151.22 as input to 159.675 R

National Grid in Westboro is moving their 451.15 repeater

Barnstable Water District is relicensing 47.74 in Hyannis

Signature Flight Services seeks to use 468.575 for mobiles at Hanscom Airport

New England Gas in Fall River wants to repeaterize 153.470 by adding 158.265 as the input channel

National Grid in Paxton is licensed for 49.42 R - 49.06 R - 49.5000 R - 47.9600 - 48.2200 - 48.2800 - unknown if any of those freqs are ever used

Westfield Emergency Management Agency seeks to

license a repeater on 460.3125

North Reading wants a 158.7825 repeater with a 155.0775 input for their Building Maintenance Department

Unitil wants to install 160.2075 R and 158.22 R in Amesbury on Pow Wow Hill

Lynn Water and Sewer seeks a 152.9675 repeater

AMR Ambulance Service wants to change Goffstown NH from 152.33 R to 152.36 R - in addition - 152.45 R is at Nobscot Hill in Framingham and 152.975 R is at 200 Clarendon St in Boston

American Red cross will be adding 47.42 to augment 47.58 at 600 Atlantic Ave in Boston - they will also be adding 46.04 to augment 47.42 at 200 Clarendon St in Boston

Ashley Fuel in Beverly seeks to use 159.8025

Beal and Company seeks to add 461.9625 R at 1 A Kendall Square in Cambridge

Fall River seeks to add a 482.5125 R repeater in Easton (for the Bristol County police mutual aid channel)

Starck Chemicals in Newton seeks to add 464.6625 R

Boston seeks to add 4 channels at each of its 4 sites for its TRS - the channels are - 858.3875 + 857.3875 + 854.2375 + 856.0375

Groton PD has 159.00 for mobiles

Boston Police seek to add 2 mobiles on 460.3375 - this might be the security channel at HQ

Google in Lexington wants to use 461.825 R

Boston Police is adding a repeater site at 200 Stuart St for 460.45 R and 460.35 R

Fitchburg seeks to add a 471.40 data channel at Rollstone Hill - and a 472.725 repeater at 9 Chase Rd in Lunenburg

Eastern States Exposition in West Springfield is licensing the following channels - 152.90 R + 464.7375 R + several UHF mobile channels

Essex FD wants to upgrade their 155.82 channel to repeater ops with 151.1225 as the input

As you can see - many changes are underway at many different agencies and businesses.

Take care - **Peter Sz**

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## VERMONT

*Jim Lawrence*  
[ScannerDigest@gmail.com](mailto:ScannerDigest@gmail.com)

*No Column This Issue*

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## CONNECTICUT

*Keith Victor*  
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*No Column This Issue*

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## SOUTHERN NEW JERSEY

*Column Editor Wanted*  
*Position Open*

### Camden County (NJ) Communications Center

The Camden County Communications Center (856) 783-4808 is the largest of seven 9-1-1 Public Safety Answering Points (PSAPS) in Camden County. 9-1-1 is a FREE universal number you can use 24 hours a day when you need a response from police, fire, or emergency medical units. The Communications Center is a state-of-the-art facility where 9-1-1 calls are received and processed in order to insure the proper emergency service reaches you in the fastest way possible. Three areas play an essential role in assuring this happens.

The 9-1-1 Telecommunications Room receives 9-1-1 calls, provides emergency assistance, and immediately routes the calls to the proper agency for dispatch. The Alarm Room dispatches both firefighting apparatus and emergency medical vehicles from all 37 Camden County municipalities. Police Central is responsible for the dispatching of police from 27 municipalities, and various other law enforcement agencies.

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### News on Upgraded Radio Communications Migration from 500 MHz to 700 MHz System

Camden County officials moved one step closer toward completion of a \$14 million [public safety](#) radio frequency overhaul that is expected to increase signal strength and keep first responders safer.

"This is the most important project being conducted by the Camden County Board of Chosen Freeholders," said Freeholder-Director Louis Cappelli Jr. "This will bring a state-of-the-art 911 communication system to this county and eliminate problems of inoperability and interference." A Federal Communications Commission mandate with a deadline of Jan. 1, is the catalyst for public safety entities nationwide to move to the 700-800 megahertz frequency. Legislation passed in February by both houses of Congress also gave comfort to public safety entities that

the move would allow for a secure frequency for first responders.

According to county officials, the radio system is currently split into multiple non-interoperable wavelengths: 500 MHz UHF for police and 150 MHz VHF for fire and EMS. This multiple wavelength system has been in use for approximately 20 years. Due to the growth within the county, the system can no longer meet the demands of adequate coverage, radio traffic capacity and expandability.

The UHF police network is also plagued by interference from digital television stations that have been brought into the T-Band frequency over the past two to three years. "You never know when this interference is going to occur, it just happens," said county Director of Public Safety Rob Blaker. "It has increased the last two or three years and it's scary when there are first responders that could need someone on the other end to save their lives." Additional cost will be incurred to erect or update nine communication towers in the county. The Pennsauken tower was the latest to be updated.

"The structure in Pennsauken is more than 250 feet high and the concrete footings are 42 feet deep," said Rick Connor, Camden County's communications technician. "These structures are here for the long haul."

The freeholders approved the reallocation of \$1,682,356 in public safety [funds](#) to their radio communications project to complete the task.

Those funds will go in part to towers in Cherry Hill, Runnemede, Voorhees and Waterford, planned to join those already in place in Pennsauken, Gloucester Township, Lindenwold and Winslow. Compared to many other surrounding counties, Camden County Spokesman Dan Keashen said they are light years ahead.

Burlington County spokesman Ralph Shrom said the freeholder board is still awaiting final approval for their 700 MHz frequency by the FCC.

"We are in the process of evaluating and bringing in consultants to let us know what we need and what our options might be," said Shrom. "We do have a good network of radio towers, but this is an expensive task and it's not something that will happen overnight." The process could take a few years, Shrom said. The Delaware River Port Authority recently was approved for a \$3.2 million expansion of the 800 MHz radio system to cover the PATCO line.

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Camden County is laying the groundwork for a complete transformation of its emergency communication system. This new system will include new communications towers and new dispatch consoles that will facilitate the county's

migration from communicating at 500 MHz to 700 MHz. This will allow the county to accommodate emergency communications for all its municipalities and provide complete interoperability between public safety disciplines on a new frequency band specifically set aside by the FCC for this purpose.

"The Freeholder Board is committing significant resources to accomplish the migration of its communications infrastructure in order to meet the Federal mandate of Narrow Banding by January 1, 2013," said Freeholder Director Louis Cappelli, Jr. "We are conducting a thorough market survey to develop bid specs for the first phase of the project. Just how much we can accomplish in the first phase will be determined by the responses to the bid, so vendors better sharpen their pencils if they want to work on this project. If pricing is favorable, we will be able to do that much more."

"Funding for this phase of the project is in place, but the Freeholder Board will continue to work with our state and federal representatives to identify other funding sources that will assist the county in completing all phases of this project," said Freeholder Rodney Greco. "The new communications system will assist our public safety personnel to protect our residents and visitors to Camden County." Federal stimulus funds for other county capital projects have provided the county the opportunity to go out for bonding on first phases of the communications upgrade project. "On behalf of President Robert Doyle and the members of the Camden County Police Chiefs Association,

I am pleased the Camden County Freeholders have approved additional funding to the new 700 MHz Public Safety Radio System. This should help move the project forward and provide for a comprehensive public safety radio system for all of the public safety entities in Camden County," said Pine Hill Police Chief Kenneth J. Cheeseman, Camden County Police Chiefs Association Representative. "This new system will improve the interoperability of all emergency services, not only in Camden County but throughout the region.

"The new 700 MHz communications system will create an improved operational environment for all firefighters and emergency medical technicians in Camden County. The Freeholders recognize the importance of replacing the current system and the efficiencies achieved when the end-user equipment is bid as one package," said Cherry Hill Fire Department Chief Robert Giorgio, Camden County Fire Chiefs and Officers Association Representative. "Protecting Camden County is serious work and the new radio communications system will help to strengthen our capability."

"Camden County's migration to a 700 MHz radio system will allow for a digital P-25 open standards based state-of-the-art public safety communications platform that will enable our fire, police, and EMS first responders to

provide critical emergency services to our citizens in a more effective, efficient, and more importantly, a safer communications infrastructure," said Robin J. Blaker, Acting Director of the Camden County Department of Public Safety. Also speaking at the announcement were Chief Thomas Tassi of the Audubon Police Department, on behalf of the Camden County Police Chiefs Association, and Mayor Frank DeLuca, Jr. of Lindenwold on behalf of the Camden County Mayor's Association.

***We're looking for photos!***

We're looking for photos to be submitted for the Scanner Digest Newsletter. Contact us for details.

**ScannerDigest@gmail.com**

***Printed versions of the Scanner Digest Newsletter are available.***

\$1.00 per issue shipped via book rate USPS. Checkout the website for specific issues. Get them now. Potential collector's item.

**ScannerDigest@gmail.com**



# ScannerDigest 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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