NATIONAL COMMUNICATIONS

Issue Price $3.50 U.S.
September/October 2011 • Vol. 22, No. 5

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Uniden's HomePatrol-1

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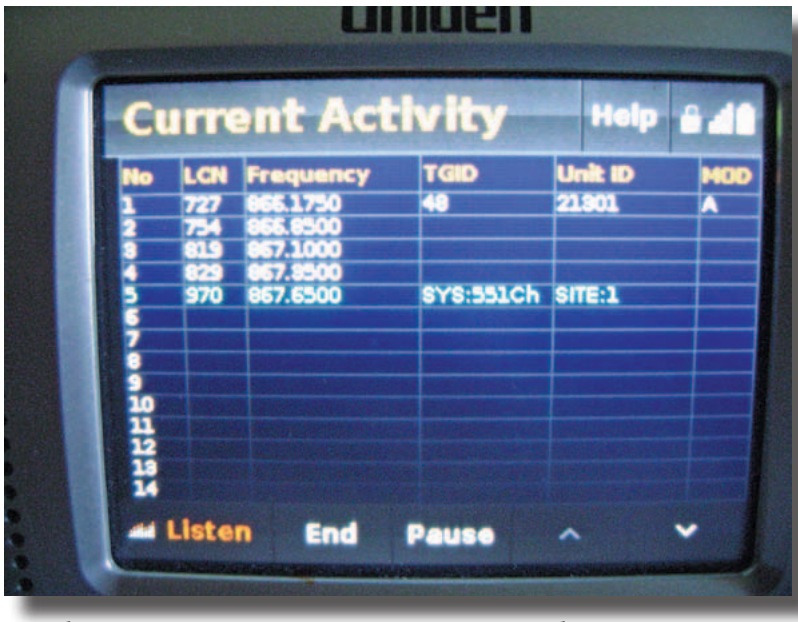
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By Paul Opitz,
Uniden America Corporation

Uniden's HomePatrol-1

Two Updates and an Upgrade

In mid-August Uniden released a significant update for its HomePatrol Sentinel software, a major update to the HomePatrol-1 Feature Set, as well as an exciting optional Upgrade that adds significant new features and capabilities to the HomePatrol-1.



HomePatrol Sentinel Update

The HomePatrol Sentinel software has been an essential tool for keeping your HomePatrol-1's database up to date, managing favorites lists, and backing up your HomePatrol-1's settings. With the update, we'll be adding some much-requested features and functionality, including:

- Complete programmability for new or existing systems. Create or edit any system in a Favorites list to personalize alpha tags, apply some of the newly available settings, or set up systems that have not yet made it into the main database.
- New channel settings include:

  Per-channel delay of 10, 5, 2, 0, -5, or -10 seconds (those negative settings force scanning to resume after the set time elapses, even if a transmission continues).

  Per-channel alert to get your attention when a particularly important channel becomes active.

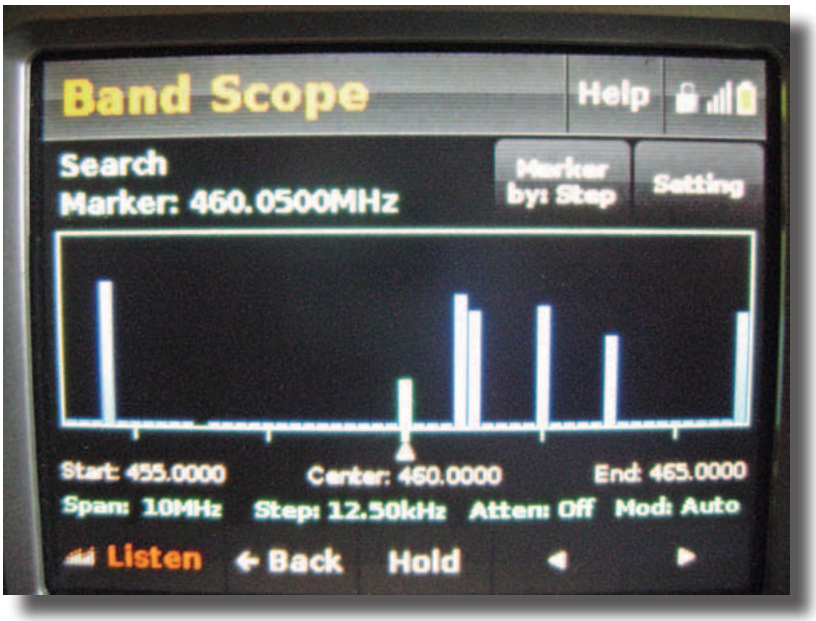
  CTCSS/DCS or NAC Search to capture unknown subtones on frequencies.

  Per-channel attenuation to help avoid interference from other in-band transmissions.

  Per-channel volume offset to help balance the audio level among channels.

  New service tags for Racing Officials, Racing Teams, and eight Custom tags.
- Support for defining location using up to 32 rectangles per department or site, instead of a single circle.
- ID Search mode for trunked systems so you can monitor channels even if they are not yet in the database.
- Unit ID programming so you can alpha tag individual radio IDs and see specifically who is transmitting.
- The ability to add channels to a favorites list automatically based on your location, a range, and the service types you are interested in.
- The ability to enable up to 256 Favorites Lists for scanning along with the Main Database.
- Tools for reviewing the results of Discovery sessions or Activity Logs





- An Export feature that allows you to easily share Favorites Lists with other HomePatrol users and a companion Import feature so you can use Favorites Lists others share with you.
- A KML Export feature that lets you export system information for viewing in Google Earth.
- Automatic update notification for the HomePatrol Sentinel software will now let you know when a new version is available.

Of course all of those new settings you can apply using HomePatrol Sentinel, the HomePatrol-1 will take advantage of.

These feature additions address all of the major feature requests we've seen from many of you. Some of them will slightly change the way information is displayed on HomePatrol-1's main operation screen. For example, we now display the name of the Favorites List below the System name so you can more easily identify which system you are hearing and will display the alpha tag for Unit IDs along with channel alpha tags when you are using this feature.

We believe that the HomePatrol Sentinel and HomePatrol-1 updates provide features and benefits for just about everyone from the novice to the advanced. So, even though you might be able to imagine the significant amount of resources we dedicated to creating these updates, we decided to release these as free updates.

HomePatrol-1 Extreme Upgrade

Now we get to some really cool stuff. These are features that, for the most part, we've never seen requests for. But, they are going to allow the HomePatrol-1 to become an essential part of the advanced user's tool kit. Here's what the paid Upgrade will get you:

- Complete front-panel programmability ñ lets you edit existing systems in favorites lists, or create new systems from scratch. You'll no longer be tied

Continued on page 6

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Uniden's HomePatrol-1

solely to the information we provide in our Database when you are out and about, away from a PC.

- Trunked System Load / Reception Status tool
- Current Trunked System Activity
- Trunked LCN Monitor (activity over time)
- Trunked Activity Logging (includes log file for detailed review)
- Talk group converter to switch between Decimal and Hex channel representation
- LCN Finder to helps determine the Logical Channel numbers for EDACS and LTR trunked systems.
- Band Scope plots a graph of RSSI vs Frequencies for a range of frequencies
- RF Power Plot plots a graph of RSSI vs Time for a single frequency to help locate transmission sources, monitor antenna performance, and track down interference issues.
- Limit Search

Trunking System Discovery makes it much easier to discover new channels on a trunked radio system. The HomePatrol-1 continuously monitors the selected system and compares received channel grants to the known channels for your area. When a new Talk Group is discovered, it records up to 4 minutes of audio so you can later review and identify the agency using the channel.





- Conventional Discovery similarly helps you find active frequencies in your area that haven't made it into the database. When a frequency has activity, the HomePatrol-1 compares the frequency and subtone settings to known channels in your area. If the information is not in the database, the HomePatrol-1 records up to 4 minutes of audio so you can later review and identify the agency using the frequency.

Finally, if you would like to see the new features in action you can go to the UnidenUpman YouTube channel.

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R6



The **Icom R6** covers 100 kHz to 1309.995 MHz (less cellular gaps) in: AM, FM Narrow and FM wide. Enjoy local VHF-UHF coverage plus international shortwave broadcast. 1300 memories store: frequency, mode, step size, duplex, CTCSS, tone squelch and skip settings. Other features include: attenuator, LCD lamp, AM ferrite bar antenna, auto power off, CTCSS decode, weather function and battery save. You can put the world in your pocket for under $200.00.

Call or visit website for price.

R20



The **Icom R20** covers an incredible 150 kHz to 3304.999 MHz (less cellular) with 1250 alphanumeric memories, bandscope and SSB/CW. It has: two VFOs, dual watch, voice scan control, NB, large two line LCD and CTCSS/DTCS/DTMF. A built-in IC **audio recorder** can record up to 4 hours of reception! With charger, Li-ion battery, belt clip and strap. **Call for price.**



The **Icom R9500** raises the bar for professional receivers. Visit the Universal website for full details on this state-of-the-art instrument.

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IC-RX7



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By Jon Van Allen KF7YN

GPS Roundup

In case you haven't noticed, GPS technology has come a long ways lately. You can find GPS in an incredible amount of devices and applications, some of which are not obvious to everyone.

GPS based location can be found in the usual places such as mobile GPS units, in-dash navigation, two-way radios, cell phones, GPS for cars, motorcycles, RVs, boats, ATVs, military, delivery trucks and semi rigs but there are also GPS applications for farming & agriculture, surveying, geological research, hiking, search & rescue, fishing and golfing applications and even exercise. There are too many to list here so I will talk about what most of us use, GPS in our cars, RVs and work vehicles.

I will put a few consumer grade automotive GPS units through the paces here to give you an idea what features you can expect to find in some of the more popular units on the market now. Before we get started on that, let's have a look at what's new:

Magellan RoadmateÆ Pro 9165T GPS Receiver. Magellan and Good Sam have teamed up to produce the all-new RoadMate Pro 9165T, a robust GPS device that is specifically designed for those who love to RV. An extra-wide, high-definition 7-inch touchscreen offers large vehicle and RV settings that map routes based on vehicle height, width, length, and weight. This intelligent navigator will plan routes according to your preferences, making the drive much more error-free and enjoyable for you, your family, and friends.

The RoadMate Pro will be invaluable on your travels as it is pre-loaded with U.S. and Canada campground information from Trailer Life Directory, and Good Sam discount locations. The 9165T will give you guidance on million points of interest (POI) near and far, pet-friendly parks, and RV service and parking. And, the device comes with a Heavy Duty Extension Mount that is extremely versatile and designed for vehicles with deep dashboards. You can easily make adjustments to get the viewing position that works for you.

The Magellan RoadMate Pro 9165T offers superior navigation for a safe and secure driving experience. Drivers can plan and customize routes in advance to become familiar with their route before driving it. Turn-by-turn spoken directions let them to keep their eyes on the roads. Best of all, with the RoadMate Pro you can quickly navigate to Good Sam certified campgrounds where you can enjoy member discounts.

Garmin dezl 560 LMT GPS for truckers. Garmin's advanced navigator for the trucking industry. Designed with truckers in mind, the 560LMT has a large 5-inch



nuvi 1390T with eco Route Map



nuvi 1390T with eco Route Guages



nuvi 1390T with eco Route Fuel Economy



nuvi 1390T with eco Challenge





display, extra loud speakers, and external video input for backup cameras. Garmin has also expanded the feature list to include trucking speed limits, truck-specific route highlighting, lane widths, bridge heights, load restrictions and trucking points of interest (POIs). And truck drivers aren't the only type of drivers that will like the 560LMT--RV drivers will appreciate the ability to setup an RV profile and calculate routes based on height, weight and length restrictions.

Made for Life Over the Road. With your dezl 560LMT, logging and retaining trip information has never been easier. You record fuel usage, and the 560LMT automatically records state mileage for IFTA fuel logging. Easily log your hours of service and driving status, and the 560LMT tracks your hours and automatically warns you of HOS violations. Conveniently export all logs for improved reporting and tracking of each trip.

With a 5-inch (12.7 cm) high-resolution touchscreen display, dezl 560LMT provides a wealth of information in great detail. Clearly follow your highlighted, truck-specific route on the trucking map (U.S. only) and view trucking violations and warnings. dezl 560LMT also comes standard with Lane Assist with Junction View, which provides photo-realistic views of upcoming junctions to guide you to the right lane at the right time--especially helpful when navigating complex highway interchanges.

dezl 560LMT combines National Truck and Trailer Services (NTTS) Breakdown Directory POIs with Navteq trucking POIs to provide you the most comprehensive, trucking-specific POI list. Garmin's exit services let you search roadway exits for truck stops, food, lodging, rest areas and weigh stations so you're never left guessing what's around the bend. Once you find a truck stop, see a list of services offered at that location, such as WiFi, showers and truck scales.

Easily log your hours of service and driving status. This feature can be very helpful to truck divers who need to document their hours, update logbooks, etc.

With a 5" (12.7 cm) high-resolution touchscreen display, dezl 560LMT provides a wealth of information in great detail. Free Lifetime Map and Traffic updates are included. You always have the most up-to-date maps, points of interest and navigation information available at your fingertips. Traffic information is updated constantly, and map updates are available for download up to 4 times a year. Both features are ready to go, right out of the box, with no subscription or update fees and no expiration dates.

Experience n¸Route Technology with trafficTrends and myTrends. dezl 560LMT includes n¸Route technology with trafficTrends historical traffic and myTrends predictive routing. With trafficTrends, your dezl 560LMT automatically learns daytime trends for traffic flow to improve your routes and better predict your estimated time of arrival based on time of day and day of week. With myTrends, when you save your regular destinations in your "Favorites," your dezl 560LMT will, over time, begin to figure out where you're going even without your telling it! It provides time of arrival and relevant traffic information. So whether you're driving to and from work or a regularly scheduled weekly event, your dezl 560LMT will help you get there on time. No subscription or additional cost required.

Know The Way with detailed maps that provide turn-by-turn directions that speak street names, dezl 560LMT provides specialized routing to support truck-related restrictions in both the U.S. and

Continued on page 10

GPS Roundup continued





Canada (customizable by height, weight, length, width and hazardous materials). Simply enter dimensions and load restrictions, and dezl 560LMT guides you according to your requirements. The onboard Trip Planner lets you create multiple-stop routes and plan and save future trips.

Drive Safe! The road is no place for surprises, and dezl 560LMT keeps you informed of upcoming road conditions, such as sharp curves and high winds, and restrictions, including no trailer or hazardous materials. A grade data field that appears on the map enables drivers to anticipate descents and ascents and shift accordingly. Trucking speed limits appear if they are lower than the posted automotive speed limit, and you have the ability to correct the speed limit on your 560LMT so you have the most accurate data at all times.

For hands-free calling, dezl 560LMT integrates Bluetooth wireless technology with a built-in microphone and speaker. Just pair it with your compatible Bluetooth phone and talk hands-free through the 560LMT while staying focused on the road. Simply dial numbers with dezl's touchscreen keypad to make a call. To answer calls, just tap the screen and speak into its built-in microphone. Enjoy convenient one-touch dialing for contacts and points of interest.

What's in the Box: Garmin dezl 560LMT (Preloaded City Navigator NT for North America, Lifetime Maps and Traffic, and Preloaded NTTS Breakdown Directory), FM Traffic Receiver, 12/24 Volt Power Cable, Portable Friction Mount, micro-USB Cable, Quick Start Manual

I put several GPS units through several months of testing in all sorts of weather from cold and snowy to hot desert summer here in Utah.

My testing lineup: First up is my trusty old Garmin Nuvi 200. I bought this unit years ago and it has been one rock solid little unit. There are no extra bells and whistles, just a plain navigator and trip computer. The nuvi 200 has been with me on many a road trip and has never failed to provide accurate information.

Motorola Motonav TN20. This is a very basic unit like the Nuvi 200. Acquires satellites quickly, has good voice annunciation but maps cannot be updated which is a major drawback. Nice strong mount, good graphics. The Motonav mount is the strongest of the bunch.

Next up is the TomTom XXL 540TM Portable. This unit froze up and totally failed within 10 days of purchase. I discovered this is a fairly common problem after reading other reviews. On the positive side: beautiful 5" display, traffic updates and lane assist. On the negative side: Inferior flimsy "ring" mount. Agonizingly slow, 1 full minute, to acquire satellites on cold startup. (my Garmins all acquire within a few seconds). Unclear, hard to understand pronunciation of some street names. No SD card slot. Limited memory available for custom POIs, etc. All in all a relatively poor product which I cannot recommend. I understand TomTom One is an excellent unit so please don't take my experience with the XXL 540 to be an indictment of TomTom as a whole.

Garmin Nuvi 255WT. The 255WT is a workhorse with just enough bells and whistles to make your commute or road trip a lot less

GPS Roundup continued





stressful. The 255 has been the most reliable of any unit I've owned over the years and has never glitched or frozen up. It is the one I rely on the most. It does have a traffic receiver but does not have bluetooth. The 255 can be loaded up with custom POIs.

How the traffic feature works: there is an FM receiver built into the power cord and decodes information broadcast on FM band subcarriers. These subcarriers also transmit audio books for the blind, background music and other specialized programming within the 200 kHz bandwidth allocated to each FM channel. Since the actual FM signal of any station doesn't occupy the entire 200 kHz bandwidth, other information can be piggy-backed on the main signal. Most all metro areas, large or small now carry traffic info The green traffic icon will show gray if no traffic signal is received. Yellow and Red icon means medium to heavy traffic congestion. Just touch the icon to display specific traffic and route information and recommended alternate routing.

Notice the hotel ad in one of the screen shots. These ads pop up now and then when receiving traffic info. Many people don't like the ads but I simply ignore them. Advertisers pay for some of the costs associated with transmitting traffic information to the public.

New to my lineup is the Garmin Nuvi 1390LMT. LMT indicates free lifetime traffic and map updates. The 1390 is paired up with Garmin ecoRoute HD Vehicle Diagnostics Communicator. This is a cool little unit. If you have a bluetooth capable Garmin n¸vi (1690, 1490, 1390, 1370, 1260) you can get Real-Time Diagnostics displayed as; eco view, gauges view and fuel economy view (see photos).

Transform your compatible n¸vi into a real-time diagnostic computer with ecoRoute HD. This easy-to-install device not only provides fuel and mileage reports, but you get more accurate fuel consumption/conservation data by tapping into your vehicle's diagnostic system. Calculate your carbon footprint, engine performance, and more all through your n¸vi.

Save gas...and a trip to the mechanic. With ecoRoute HD, you not only save fuel, but the vehicle diagnosing capabilities could also save a trip to the mechanic. After completing a simple setup, you can use your n¸vi to run diagnostic testing on vehicle systems, such as the battery and drive train, and you can monitor engine data, including temperature and emissions. You'll also receive diagnostic trouble codes and be able to reset your check engine light.

How It works: by accessing on-board diagnostics and performance data through ecoRoute HD, drivers can use a compatible n¸vi to wirelessly monitor real-time vehicle diagnostics while accurately calculating ecoRoute data and driver challenge scores (speed, acceleration, braking, etc.).

By simply plugging the ecoRoute HD module into the vehicle's standardized onboard diagnostics port (OBD II), safely mounting the transmitter clear of vehicle controls and pedals, and completing the easy one-time pairing with n¸vi, drivers can start receiving the vital data from their vehicle and run diagnostic checks through n¸vi's intuitive interface before a trip to the auto shop is necessary. Drivers also get more accurate ecoRoute data,

Continued on page 12

GPS Roundup continued

making fuel conservation easier than ever, and they can monitor their engine data (including temperature, RPM, emissions) and diagnostics through the trip computer screen and customizable gauges screen.

In reality, the hands free bluetooth feature leaves a lot to be desired. Background noise and road noise is always a problem with hands free and GPS hands free units are no exception. However, the bluetooth connection for the ecoRoute transmitter works flawlessly. You must have a compatible GPS, the

Product features: Simple installation that takes an average of five minutes. (It too me longer, I had to find a place under the dash to install the transmitter).

Accurate fuel consumption and carbon footprint.

Real time engine and emissions data ñ RPM, coolant temp, air flow, fuel flow, air pressure, and more.

ecoRoute HD reads Diagnostic Trouble Codes (DTC) which allows you to view over 4000 trouble codes.

ecoRoute HD is compatible on all cars and light trucks made after 1996

What's in the box: ecoRoute HD, zip ties, adhesive tape, and installation instructions



If you are considering purchasing a GPS unit, have a look around before making a hasty decision. If you would find the ecoRoute feature to be useful, then this really is the unit for you. Otherwise, my favorite of the bunch is the 255WT for it's low price, ease of use and long-term reliability.

As always, I welcome your questions and comments via email kf7yn@yahoo.com

Until next time, happy navigating!

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ROOFTOP, REBROADCAST, RETRO

Here are a few tips for your scanner listening this fall

By Chuck Gysi, N2DUP

The fall season is about upon us and for some reason, it always seems like the "beginning." When we were kids, we went back to school in the fall. The season changes by getting cooler, we buy new clothes and settle into new routines for another year (or school year). With that in mind, I thought I'd offer a few scanner tips and thoughts this month that hopefully you can find useful at this "start" of the year.



While this seems to be a newer scanner antenna, it still should be checked up on the rooftop at least every year or two. Some sealant around the connector would help protect it from the elements and the fall is a great time to get your antenna system in great shape for a long winter season of monitoring.

Hit the ladder

The fall is a good time to check your scanner antennas on the house. It's also a good time to put up new antennas!

You may think it's too hot during the summer to play with antennas on the roof, but as the days get shorter and the weather gets cooler, the fall is a perfect time to do antenna work. If you haven't checked your antenna system in some time, it might even pay off to get up on the roof or tower and check the connections on your antenna. Is the coaxial connector still in good shape? Is there any corrosion of the metals that might affect the performance of your antenna? Is the coax in good shape, too?

Remember, a deteriorating antenna system means deteriorating scanner reception. Antennas, connectors and coax cable don't last forever. If you've had an antenna up on the roof for 20 years, you might want to consider a new one. I can guarantee that a new antenna will work like a champ, because new designs mean better signal capture and new bands that your current antenna may not cover. Way back when at one time, you could easily get away with putting up a VHF high-band scanner antenna and hear most everything you needed. Today, you need an antenna that covers VHF and UHF; 700, 800 and 900 MHz; and maybe even specialized bands like the 225-400 military aviation band.

There's a saying that "real" amateur radio operators wait until the winter cold to do antenna work – and I've been guilty of that on quite a few occasions – but the fall really is a great time to fix up (your current antenna system) or put up (a new antenna).

If you have specialized listening interests such as VHF or UHF, take a look at amateur radio antennas for those bands. They often cost less than commercial two-way radio antennas and give the same bang for the buck. If you have specialized needs for a certain part of the band, you may need to trim the antenna elements from an amateur antenna to reach higher into the commercial radio

ROOFTOP, REBROADCAST, RETRO

continued

bands. Otherwise, most base scanner antennas will work great for you.

So what are you waiting for? Get up on the roof and check your scanner antennas or put up a new one.

Whole-house scanner

Often, most hobbyists have a room in their house where their scanners and perhaps other radios such as shortwave, CB and ham are set up. But we often need to spend time with family, spouses, friends and others in our homes and we can't stay in our radio rooms all day. Suppose there was a way to listen to your scanner, and even your CB, shortwave and ham radios, elsewhere in the house?

When I was building a house quite a few years ago, I ran speaker wire in the walls while the house was being built and installed audio jacks in several rooms. These wires ran from my radio room in a loft above the garage to the bedroom and the family room. I had cheap speakers that I used to plug into the speaker jacks in these rooms that allowed me to listen to my scanners in my radio room. The scanners were plugged into rooftop antennas and because I lived on a high hill, I could hear all around. The speakers, which had switches inline on them, allowed me to listen in the other rooms whenever I wanted – and I didn't have to hide out in the radio room to monitor.

Today there are different ways to extend your scanner audio – wirelessly. If you live in a ranch home – or you are building a home like I did – you can run speaker wire through the walls or under the floors, but today, wireless is a lot less effort. There are a number of FM transmitters on the market that you can use for your MP3 player, iPod, Internet radio or what have you. What I have found, however, is that many of them are inferior and don't transmit too far. If you need to get a signal into the next room, often these small FM transmitters just don't have what it takes to get a signal through the wall, let alone across the room.



The C.Crane FM Transmitter 2 offers extended rebroadcasting of any device over FM frequencies. Hook one up to your scanner and listen anywhere in your house on the FM band.

You plug the transmitter into your speaker or headphones jack and tune the FM transmitter to an unused frequency in your area and voila, you can hear your device on an FM radio. Well, why not do the same thing for a scanner?

As I said, most of these chintzy devices often don't have much oomph to carry a signal. However, I have found one that does work and gets the signal around my house. Quite a few years ago, I read good reviews for the C.Crane Digital FM Transmitter and decided to give it a try for an XM satellite radio unit we had in a room of the house. After getting one that was designed for the XM unit, it worked perfectly all over the house, into the yard and even into the neighbor's nearby yards, too. I was impressed.

With the success of this unit on our XM receiver, which I use a lot for listening to baseball games while moving around the house with a portable FM receiver, I thought, why not? – it would work for a scanner, too! I recently picked up an additional C.Crane FM Transmitter and plan to use it for relaying other radio audio through the house, much like I do for the XM radio. With some recent Chinese handheld two-way radios that I picked up that also have the FM broadcast band, I already have the radios I need to listen as I walk around the house, into the garage, onto the back deck or in the yard. If you're interested in checking out the C.Crane transmitters, check here: http://www.ccrane.com/radios/fm-transmitters/. They have an older unit that costs less, or you can get the latest and greatest model. I don't think you will find a better FM transmitter that transmits as far as this does – and is FCC compliant, too, unlike some of the cheap import transmitters you sometimes see on the market.

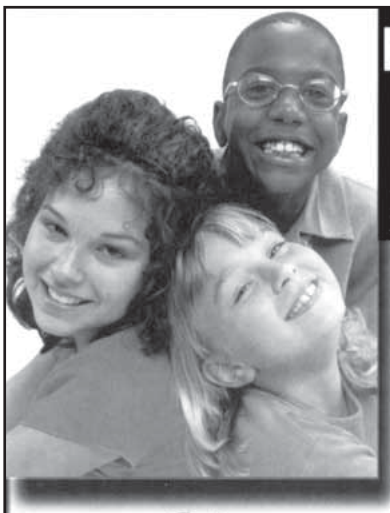
Continued on page 16

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ROOFTOP, REBROADCAST, RETRO continued



This Regency ACT10R crystal scanner would work great on VHF and UHF frequencies in your radio room so you don't miss calls on busier scanners. Plug in crystals for your local emergency frequencies and you won't miss what's important in your town – if indeed VHF and UHF still are used where you live.

Go with the old

If you're like me, you may have a primary scanner that you use for monitoring, but it might have thousands of channels programmed into it. That's my predicament. With all those channels, I sometimes miss out on local activity around town while the scanner is locked up on a big trunked system or VHF marine broadcasts. What can you do to ensure you don't miss activity on a handful of local channels in your community?

Here's a cheap idea: use an old crystal scanner to hear what's on your community's primary emergency services frequencies without missing the channels on a busier scanner. Perhaps you have an old crystal scanner in your garage, in your radio room or in a closet. If you're lucky, you don't have to worry about trunking or digital radio systems and using a VHF/UHF crystal scanner will work for monitoring your community's police, fire and EMS frequencies. Maybe you don't even need new crystals for the old scanner, if your local frequencies haven't changed. It's worth a shot – and will give you extended monitoring so you don't miss emergency communications in your town.

Write in

What scanner listening tips would you like to share with our readers? Are you getting ready for winter monitoring? You can write to me at nat-com@scanning1.com (be sure to put "Nat-Com" in the subject line or your e-mail may wind up in my spam bin). This e-mail address is only for the author of this column. ●

Nat-Com Reviews 10 Meter/12 Meter Multimode HT

By Gordon West, WB6NOA

As we SLOWLY ascend solar cycle 24, some fun conditions are found at the top of the high frequency band on 10 meters and 12 meters.

These bands traditionally have very low noise floors, so it doesn't take 100 watts to answer a CQ. And at the top of 10 meters, FM is permitted, plus FM fun through local and skywave 10 Meter repeaters.

INPUT	OUTPUT
29.52	29.62
29.54	29.64
29.56	29.66
29.58	29.68

10 meter FM Simplex 29.60

A well-established company called RF Limited, Issaquah, WA, has been the provider of ham radio base station microphones, ham radio headsets and wiring harnesses for motorcyclists, and other unique products they bring in from close connections to favorite overseas suppliers.

Their latest product is a 10 meter/12 meter all mode handheld, sized LIKE A HANDHELD! The model is Magnum 1012, and it offers full band coverage on both 10 and 12 meters, and full all-mode capabilities on these two bands. Power output is 5 watts on SSB, 4 watts of double sideband AM on the upper portion of 10 meters, and 4 watts of frequency modulation (FM) at the tip top of 10 meters.

The side VHF buttons may step all the way down to 1/2 kHz, with a 6 digit frequency display and a clarifier range of greater than 1/2 kHz. This is plenty tight enough to lock in to any SSB station calling CQ on 10 or 12 meters.



For the 10 meter repeater splits, a dual VFO has the 100 kHz offset handled, and you can store these in five memory channels which hold the frequency, split, and mode.

The rubber antenna is satisfactory for short range ground wave comms, but you may want to add the accessory LRD-1012 longer antenna if you plan to be heard answering a skywave CQ. Better yet, get an MFJ very long telescopic whip, and hold the handheld over a metal railing or car trunk and NOW you have a great signal on both 10 and 12 meters.

You can remove the rechargeable battery pack, and go with a mobile adapter MOB 1012 that transforms the head of the radio to become the mobile mic, with power and antenna connector at the end of the curly cord. We haven't seen this with a ham radio handheld for several years. The concept is sound, especially for mobile use with an outside antenna.



Continued on page 18

Nat-Com Reviews 10 Meter/12 Meter Multimode HT

continued

We made some decent contacts on 12 meters, with 10 meters requiring a little more effort and better band conditions. When tied in to an external HF antenna for 10 and 12 meters, we could work just about anyone we heard on the bands. No, you won't be heard over a pile up, but QRP operation is quite successful with this little rig.

You'll have some success with 10 meter FM operation, especially if your local repeater pair is VERY nearby. More distant local repeaters will likely need an external antenna. However, when the skip comes in, skywave signals from repeaters are so strong that you have a good opportunity to make a QSO. CTCSS is pre-set to 156.7 Hz.

In the FM mode for 10 meter channels above 29.5, a software change will develop a PL tone of 156.7, rather than the original 88.5.

"Will Anderson, AA6DD, encouraged up to make this CTCSS encode switch as 156.7 Hz is far and away the most popular repeater decode tone in the USA/," comments Sam at RF Limited.

I checked out the ARRL Repeater Directory, and out of the 100+ repeaters in the USA, there was an even mix of tone choices, and I can imagine the frustration of a band opening to New York City Manhattan, where only 136.5 might bring up their specific machine.

Conversely, there were many 10 meter repeaters listed as carrier squelch, so NO encode is needed!

Of course, one could also bring in the Communication Specialists (CommSpec.org) tiny programmable HT tone board with dip switches, but this reminds me of technology we used to cut in to the back of radios in the days of an ICOM 2AT!



This handheld is also good for sniffing out noise. My usual noise "sniffer" is my trusty Yaesu FT 817 portable rig, but this 10 meter/12 meter handheld is half the size.

I also learned that the new 1012 handheld may soon have its own docking station, converting the radio to medium power mobile operation with 50 watts of peak envelope power out on SSB. It will be interesting to see this QRO concept hit the ham marketplace, with the 10 meter band being just 1 MHz higher than the restricted CB radio band, and the ban against CB amplifiers.

Yet another wrinkle in the sales of this handheld is the Federal Communications Commission's scrutiny of any amateur transceiver originally born as a Class D Citizens' Band Radio.

http://transition.fcc.gov/eb/Orders/2007/DA-07-881A1.html

Click on this site for some interesting reading.

"I must tell you that importing the Magnum 1012 might violate Rules… Basically, the FCC may consider such a radio a CB, since it is easily modified to operate on the CB band. All radios that operate on the CB band must be certified. Any radio that has built in capabilities to operate on frequencies other than the CB band will NOT be certified," states a lab test engineer who works closely with the ARRL.

"I have a list of dealers getting in to trouble selling similar amateur transceivers," adds this engineer, citing the above FCC published order.

Now comes the issue of secret solder pads, or the removal of a single SMT (surface mount technology)





Be sure to check for the latest frequencies on the Nat-Com web page www.nat-com.org

diode unlocking full HF transmit. Almost every ham rig out there can be modified easily for legitimate MARS and CAP frequency expansion, along with the opening up of the 60 meter ham band on older ham sets that did not originally include 60 meter provision.

The modification of the Magnum 1012 is clearly and expertly (!) detailed in this upbeat YouTube® video:

http://www.youtube.com/watch?v=QZvHXleKfeM

Pull back the rubber PTT cover, un-solder-blob the twin soldered traces, and execute the simple steps to open this baby up.

As a licensed ham radio operator, this procedure gains no additional ham bands, and could easily be construed as enabling 27 MHz CB radio operation – I wouldn't want to risk my ham ticket to simply add some CB channels to this unique HT,

But, as a ham-only HT, I still contend this unmodified unit would be a kick to operate while backpacking, or simply having a dandy handheld to track down local noise sources. It's also a great HT to carry outside on the patio, and turn on to check for a good band opening on 10 SSB or 29.6 FM. That's how I plan to use it; and these illegal modifications do absolutely nothing to enhance its ham radio capability.

Let's see where this radio goes.



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Shepard Air Force Base

By Mark Meece



This month we head to the cattle fields of North Texas, as most anyone knows nothing is done small in Texas. The same can be said for military monitoring in this area of The Lone Star State.

Known as "The City That Faith Built", Wichita Falls, Texas lies 15 miles south of the border with Oklahoma, and is 115 miles northwest of Fort Worth. A flood in 1886 destroyed the original falls on the Wichita River, after which the city and county takes its name. The city, weary of years of visitors trying to find the non-existent falls, created an artificial waterfall near the river in Lucy Park.

Five miles north of the central business district of Wichita Falls along the east side of Interstate 44, we find the location of Sheppard Air Force Base.

Sheprd Air Force Base has the honor of being named for former Texas Senator John Morris Shepard who supported the United States military World War II preparations when he served as chairman of the Senate Military Affairs Committee. The facility officially opened in October of 1941 as an Army Air Corps training base. However it can trace its beginnings back to November of 1940 when Major General Rush B. Lincoln, Commandant of the U.S. Army Air Corps Technical Schools surveyed the area around the city of Wichita Falls for a possible training school. Lying on three hundred acres just south of Kell Field, the spot was offered to the government for one dollar by local cattleman J.S. Birdwell. In February of 1941 the Army Air Corp approved the plans for the building of the school. When the first class of twenty-two aviation mechanics entered training that October, facilities were well enough along to begin. On February 23, 1942 the first class graduated. As the bitter reality of World War II continued basic flying training continued at Sheppard along with training glider mechanics, B-29 engineers and other technical and flying training instructors. More advanced pilot training was provided to ground officers as well as helicopter pilot training.

Continued on page 22

Shepard continued

From September to November 1945 the base served as a separation center for troops being discharged following the cessation of the war. It was during this time the base hit its peak strength of 46,340 people.

On August 31, 1946, Sheppard Field was deactivated and declared as surplus to the War Department. Control of the facilities was handed over to the Corps of Engineers on April 30, 1947.

On August 1, 1948 control and accountability for the field was transferred over to the newly created Department of the Air Force. Two weeks later the base was reactivated to provide for basic training as a supplement to Lackland Air Force Base, it was also renamed to Sheppard Air Force Base.

The following June, basic training was discontinued for about a year, and resumed from July 1950 to May 1952. In April 1949, the aircraft mechanics school was transferred to Sheppard from Kessler Air Force Base so that electronic training at Keesler could be expanded. Throughout the 1950s, training was moved to Sheppard from other facilities. Perhaps the most notable of these were training for comptroller, transportation, and intelligence which moved to Sheppard from Lowry AFB, Colorado in late 1954. In 1959, Communications, refrigeration, air conditioning, and power production operator and repairman training were transferred from F.E. Warren AFB, Wyoming. From 1957 until 1985 training for certain missile systems were conducted at Sheppard.

Also in 1959, the 3950th Technical Training Wing was designated as the Sheppard Technical Training Center. After a two other name changes in intervening years, it is now the 82nd Training Wing (TRW), a non-flying unit that conducts all technical training at the base.

In October 1965, helicopter pilot training transferred from Stead Air Force Base in Nevada. Training on H-19, H-43, CH-3C and HH-3E helicopters under the 3630th Flying Training Wing. Helicopter training was discontinued in 1971 when that asset was transferred to the U.S. Army at Fort Rucker, Alabama. In August of 1966, the 3630th began providing training in the T-37 and T-38 for the then West German Air Force. In 1973 the wing designation changed to the 80th Flying Training Wing. In 1981 the 80th FTW expanded its

TABLE 1

UNIT	NAME	AIRCRAFT	TAIL CODE/COLOR	
80th FTW				
88th FTS	Lucky Devils	AT-38B	EN	
89th FTS	Banshees	T-37, T-6A	EN	red/white
90th FTS	Boxing Bears	T-38A	EN	
340th FTG (AFRC)				
97th FTS	Madcats	T-38B/C	EN	

KNOWN CALLSIGNS
89th FTS; ALLY, DICEY,
90th FTS; ENJEP, FOXY



Shepard continued

TABLE 2
SHEPPARD AFB, TX (KSPS)

AERONAUTICAL OPERATIONS

118.200	Sheppard Approach
119.750	Sheppard Tower
120.400	Sheppard Departure
121.200	Clearance Delivery
122.950	Unicom
125.500	Ground
126.700	Radar
132.050	ATIS
236.825	Sheppard Approach/Departure
261.700	Radar
269.025	Sheppard Approach
269.900	ATIS
279.525	Sheppard Tower
282.225	Clearance Delivery
289.400	Ground
292.300	Sheppard Departure
298.900	Washita MOA
316.075	Sheppard Approach/Departure
339.650	METRO
349.000	Sheppard Arrival
372.200	PTD

80th FTW OPERATIONS

138.7500	V19 Safety of Flight
140.1750	Air to Air
148.8750	Air to Air
149.4000	Air to Air
229.0500	80th FTW Command Post
234.8000	Supervisor of Flying
257.7750	Operations
261.1000	80th FTW Command Post
285.7000	HACKER CONTROL
292.9000	80th FTW Command Post
317.4500	Operations
323.0000	Arrival
335.9000	Operations
359.3000	Operations
380.1000	Operations
385.4500	Operations







training to the Euro-NATO Joint Jet Pilot Training Program. This includes the participation of thirteen NATO countries; Belgium, Canada, Denmark, Germany, Greece, Italy, the Netherlands, Norway, Portugal, Spain, Turkey, the United Kingdom and the United States.

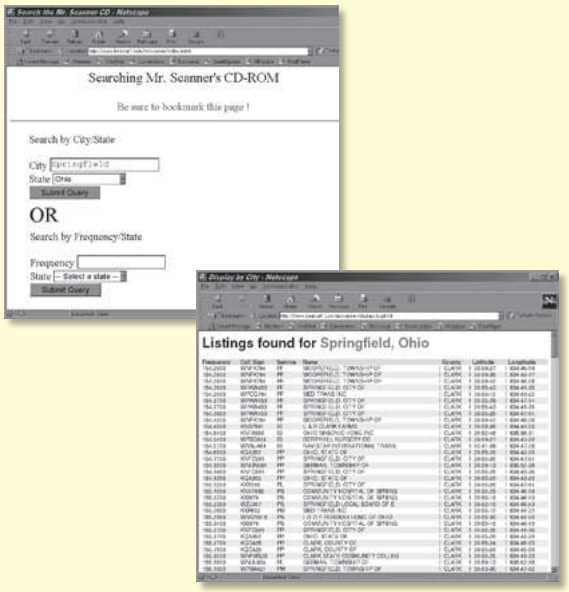
During a short period in the sixties, the Strategic Air Command's 494th Bombardment Wing was based at Sheppard flying the B-52 Stratofortress and KC-135A Stratotanker. This wing wasinactivated in April 1966. The Base Realignment and Closure committee of 2005 proposed a major realignment of Sheppard Air Force Base and relocated a number of training programs to Eglin Air Force Base in Florida. A significant number of front-line and instructor-qualified maintenance technicians and logistics support personnel to stand up the Air Force's portion of the F-35 Lightning II Joint Strike Fighter Initial Joint Training Site was shifted to Eglin.

The Sheppard Air Force Base of today is a major USAF training facility with the 80th Flying Training Wing (80 FTW) continuing the Euro-NATO Joint Jet Pilot Training (ENJJPT) program. This is the world's only multinationally manned and managed flying training program chartered to produce combat pilots for both USAF and NATO. It is the largest training base in the Air Education and Training Command (AETC).

Physically, Sheppard occupies 6,158 acres and operates four runways; 15R/33L, 15C/33C, 17/35 and 15L/33R, it shares it runways and taxiways with Wichita Falls Municipal Airport in a joint civilian/military use agreement. American

Continued on page 24

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- Pick Option #4 and insert your member number (which can be found on your mailing label) e.g. OH 8 AAA

Generally within the next 24 hours your user name and password will be e-mailed back to you and you will be ready to search for frequencies.

Shepard continued



Eagle is the only commercial airline using Wichita Falls Municipal. In TABLE 1 you will find listings for units and aircraft based at Sheppard Air Force Base. For current operational frequencies see TABLE 2.

In TABLE 3 You will see information on the Motorola trunked radio system that is in use at Sheppard. The system is a part of the large area San Antonio Military Smartzone System. Sheppard Air Force Base is Site 009 on the system and uses digital voice modulation so you will need a digital scanner in order to hear the transmissions.

Aside from Sheppard Air Force Base other points of interest include the Museum of North Texas History, Red River Speedway and the aforementioned Lucy Park. If you find yourself in the area program up your scanner and let us know of any additions or corrections. ●

TABLE 3
SAN ANTONIO MILITARY SMARTZONE

SYSTEM: San Antonio Military Smartzone
TYPE: Motorola Type II Smartzone
VOICE: APCO-25 Common Air Interface Exclusive
SYSID: 7628
SITE: 009 Sheppard Air Force Base

CUSTOM TABLE: BASE 406.000
SPACING: 12.5 kHz
OFFSET: 380

FREQUENCIES:

406.36250c	407.76250c	408.16250c
408.96250c	409.56250	410.23750
410.36250	410.63750	
410.76250		

C - denotes control channel

TALKGROUPS:

ID	MODE	USE
49936	D	82nd TRW Command
50128	D	80th FTW Command
50176	D	Aircraft Maintenance T6 Net
50208	D	Aircraft Maintenance T38 Net
50240	D	Sheppard Ground
50320	D	Sheppard AFB Police Dispatch
50336	D	Security Forces Tactical 1 (part time encryption)
50464	D	Sheppard AFB Fire Dispatch
50880	D	Sheppard AFB Telecom Maintenance
51104	D	Vehicle Operations (Bus/Taxi)
51136	D	Aircraft Maintenance Fuel
51296	D	Civil Engineering Control

Exciting, Intriguing Soap Operas of Past Days



By: Dorothy Rieke

Soap operas, popular for fifty years, have taken listeners to places where 'food is never prepared, laundry does not accumulate, and houses do not need dusting.' This land represents a fantasy of excitement and intrigue focusing on marital discord, legal drama, and romance. Of course, these formulas were expanded in later years to assure enduring success of these domestic radio dramas.

By 1940, soap operas represented ninety per cent of the commercially-sponsored daytime broadcast hours. Some critics have deemed the events of these programs as 'culturally and aesthetic inconsequential and unworthy.' However, soap operas are perhaps the most narratively complex genres of radio dramas which assured an enduring success.

Stories span several episodes, so audiences are definitely hooked on the unfolding story twists. Once, one problem is solved; other more serious problems appear. It is interesting to note that this form of escapism, involving dramatic problems of radio counterparts, generally overshadow listeners' daily problems.

Soap operas, episodic works of dramatic fiction, are open ended which means that each ends with promises that it will continue. In fact, most of these programs, with different story threads, that interconnect affecting one another or run independently are known for 'cliff hanger' endings, linked episodes, and story twists.

'Soap' operas are so called because of their sponsorship by companies such as Colgate Palmolive, Procter and Gamble, and Lever Brothers that sold laundry soap, dish soap, and cleaning soaps. The word 'Opera' suggests a contradictory incompatibility between the story concerns of the daytime serial and the most elevated forms of drama.

The first soap opera in 1930, PAINTED DREAMS, was promoted by the manager of a Chicago radio station WGN when he approached a detergent company and then a margarine manufacturer with a proposal for a new kind of show. This show, written by Irna Phillips, consisted of conversations 'Mother' Moynihan, an Irish American widow, had with her daughter and their female boarder. In the conversations, were many homilies and admonitions which were present in later 'advice' programs.

This show in its beginning days was not sponsored. However, the show's creator, Irna Phillips believed that a radio series 'must actually sell merchandise; otherwise the object of radio advertising has failed.'

Irna Phillips, leaving her job of teaching drama and theater history in Dayton, Ohio, to try her luck on radio, created and wrote some of the most successful radio soap operas in the 30s and 40s. Her vivid imagination was evident in TODAY'S CHILDREN (1932), THE GUIDING LIGHT (1937), and WOMAN IN WHITE (1938). Because her mother was the dominant figure in her family, Irna created indomitable maternal figures in her daytime serials. This writer was also the first to use professionals such as lawyers, doctors, and ministers as characters.

Soap operas, from these first shows, focused on women's domestic fiction similar to magazine fiction of the time. Even though the actions of some of these characters were beyond the realm of normal, listeners found the plots exciting and dramatic especially when the narrative was told in linked installments.

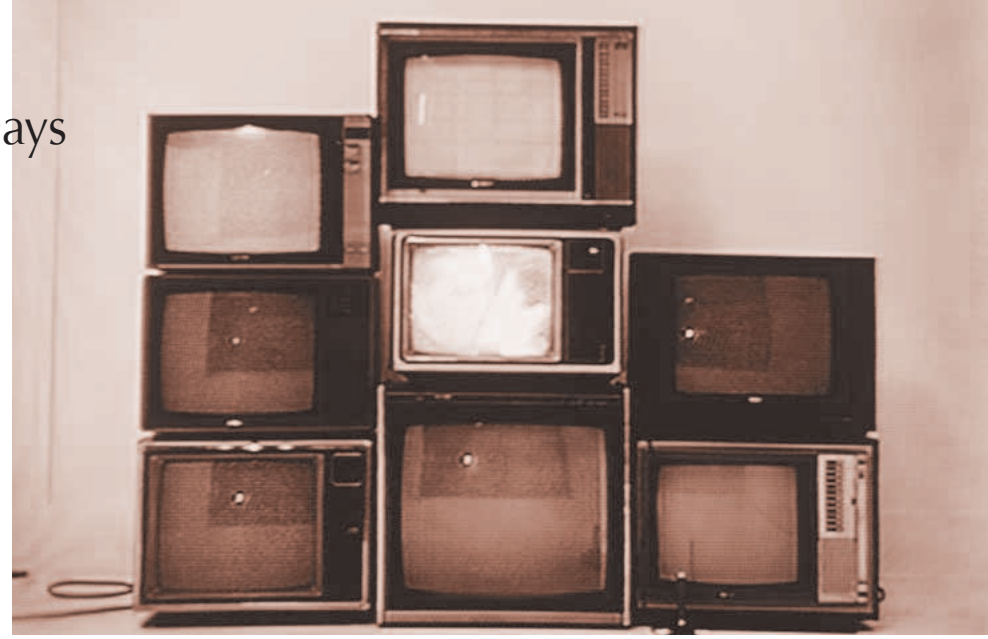
During the 1940s, Irna Phillips wrote two million words a year, dictated six to eight hours daily, and earned a salary of $250,000 a year. At the height of her career she wrote two million words a year, amounting to about thirty novels. She became known as the creator or co-creator of multiple radio soap operas and television dramas.

Frank and Anne Hummert, a husband and wife, were also in the business of writing soap operas, During 1932 and 1937, this couple was responsible for writing nearly half the soap operas pro-

Continued on page 26

Soap Operas of Past Days

continued



duced. Two of their long-time popular soap operas were MA PERKINS (1933) and THE ROMANCE OF HELEN TRENT (1933).

The weekday slots of early soap operas particularly appealed to female audiences especially to housewives who may have dreamed of escaping to a fairy tale land, inhabited by beautiful people, where every problem was easily solved. Because of the vast listening audiences, advertisers became aware of the soaps' popularity and their potential.

During Radio's Golden Age, such radio soap operas as THE GUIDING LIGHT, JOHN'S OTHER WIFE, JUST PLAIN BILL, MA PERKINS, ONE MAN'S FAMILY, OUR GAL SUNDAY, STELLA DALLAS, and others entranced audiences with such topics as family life, personal relationships as well as emotional and moral conflicts. . The characters in these dramas were adventurous and usually admirable.

The great advantage to listening to the radio soap operas, one could continue meal preparation, clean the house, and even do laundry while listening to these exciting dramas.

At the beginning of World War II , radio listeners selected their favorites from as many as sixty- four daytime serials. These programs continued in importance during the post-war period. In 1948, ten of the highest rated programs were soap operas, and of the top thirty daytime shows, all but five were soap operas.

In the following years, radio soap operas became a casualty of the times. During the social and economic years of the Great Depression and fearful war years of the early 40s, many women were housebound caring for their homes and families. After the war, women who had been in 'war effort jobs' continued working outside their homes and others joined them. It was difficult to integrate afternoon soap operas into their busy lives.

Because soap sponsors were always searching for new markets and new ways of advertising products, many moved to the new medium, television. The last network radio soap opera went off the air in 1960. The first soap opera on television was THE FIRST HUNDRED YEARS produced in 1950 and was broadcast for two years. It was not particularly successful.

The network transition of the soap opera from radio to television was not an easy one. Everything left to radio listeners' imaginations had to be given form on television. Also, production costs were two to three times more.

Television producers adopted some of the successful tools from radio soap operas such as the live, daily episodes of fifteen minutes, the unseen voice-over of the announcer to introduce episodes, the theme organ music that also designated dramatic moments, and the endings that always left unsolved problems. One advantage of television was that this medium was better able to capture characters' reactions and expressions.

GUIDING LIGHT was the longest running soap opera beginning on the radio in 1937 and ending in on television in 2009. From 1952 to 1956 this show was broadcast on radio and television. Some daytime television soap operas such as GENERAL HOSPITAL and ALL MY CHILDREN, were popular for over thirty years. AS THE WORLD TURNS was on television for fifty-four years.

The difference was great between radio soap operas and those produced on television. Television offerings were, in some cases, more melodramatic and scandalous, with strong romantic lines. Those, taking place in hospitals, often focused on a host of medical, emotional, psychiatric problems including amnesia, illegitimacy, and murder. On the other hand, radio soap opera settings were in small Midwestern towns; television soap operas often used exotic locations and dealt with wealthy people who never seemed to work.

Unlike listening to radio soaps, television required some visual attention. This was a disadvantage for those who had been listening to the radio and working at the same time.

Evening soap operas were popular in the late 70s and early 80s. These dramas appeared once a week not daily as afternoon soap operas. DALLAS and DYNASTY mixed the soap opera drama with romantic fiction. Story lines were unusual, to say the least. Schemers came between happily married couples, successful men were duped by coworkers, or if a baby was born, several men claimed to be the father. These soap opera characters never seemed to learn from their mistakes and continued making the same mistakes over and over. However, the excitement of facing and solving problems kept some listeners' ears and eyes glued to the television screen.

Despite the comments of critics and others, soap operas , beginning in the 1930s and lasting until the 1990s, were rated as one of the most effective broadcasting mediums and one of the most enduring ever devised. It remains one of the most popular genre of radio and television dramas attracting more viewers over a long period time.

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NATCOM BOOK REVIEW

Computers in Amateur Radio

By T.J. "Skip" Arey N2EI

It's hard to believe that it wasn't all that long ago that a scanning enthusiast had little more to do than plug a small handful of crystals into his or her receiver and all the listening within the range was readily available. Not long after that time, scanning receivers were designed to allow the end user to key in around 100 channels by way of an on-board keypad. Most modern scanners still have keypad entry, but punching in the, literally, thousands of memory channels by hand would probably result in a world class callous. Modern scanning receivers and savvy scannists can only get the job done with the assistance of a personal computer.

It's hard to get along in the modern world without some level of computer literacy, and, many books have been written on the subject to help folks learn how to use this particular electronic tool. However, very few books are available that tackle the subject of the personal computer from the specific perspective of the radio hobbyist. For this reason, I was pleased to find Steve White's book presenting the use of computers in amateur radio.

While not written directly to the scanning enthusiast, this book still presents many topics that are of value to any radio hobbyist. It's important to remember that scanning amateur radio activity means much more than simply listening in on your local Ham Club repeater chit chat. Amateur radio has embraced digital communication and the ability to translate these communication modes is well within the capability of any scanning hobbyist with a personal computer and some simple software tools.



by Steve White G3ZVW
198 Pages
ISBN# 9781-9050-8668-9
Published by The Radio Society of Great Britain
3 Abbey Court
Fraser Road, Priory Business Park
Bedford MK44 3WH
United Kingdom
Available in the United States from: $24.95
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After a brief overview of general PC information, Steve's book delves right in to the subject of datamodes, the various digital communications systems that can be heard over the air. "Weak Signal" VHF and UHF amateur radio communications has been advanced greatly by the development of a number of these digital modes. The information in this book will help a scannist learn in monitoring exotic propagation modes such as Meteor Scatter.

The book continues on with a chapter on logging software. Where this might be of interest beyond simply keeping track of things is the number of modern logging programs that allow for receiver, transceiver and antenna control as well as providing for many of the datamode communications mentioned in the earlier chapter.

There are chapters on Antenna and Propagation Modeling. Ham's make use of a number of programs that make it possible to design and improve the performance of any antenna system. Just the ticket for getting the most out of your scanning receiver. There are also programs that help to make sure you are pointing those antennas in the best direction to take advantage of all that the atmosphere is doing to move those signals around.

There is a section that looks into the developing world of software defined radios, the future for most radio systems coming our way. There is another section extensively covering Internet Remote Operation. Armed with the information in this chapter, you can find possible strategies to operate your scanning system from anywhere. Further chapters cover areas of interest specific to amateur radio operators such as Slow Scan TV and the Automatic Position Reporting System (APRS). These chapters still have a wealth of information for any radio hobbyist.

The book includes a CD ROM with dozens of sample programs that the reader can apply to the concepts in the book.

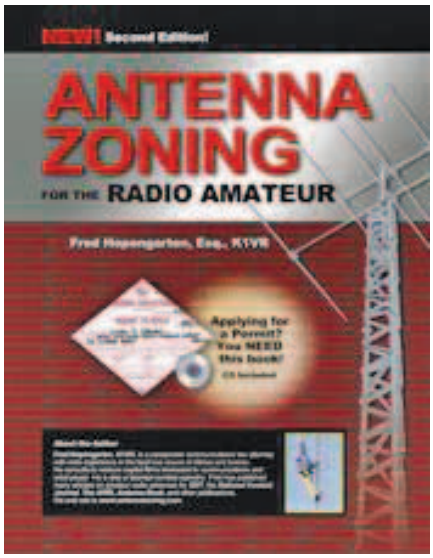
"Computers in Amateur Radio" would be a great addition to any radio hobbyists bookshelf. ●

NATCOM BOOK REVIEW

Antenna Zoning For the Road Amateur

By T.J. "Skip" Arey N2EI

As most folks grow in their understanding and enjoyment of the radio hobby, they begin to give consideration to an outdoor antenna system. For folks involved in the scanning hobby, this usually means the higher the better. Antenna hieght above ground significantly increases the number of signals any scanning receiver is going to be able to hear. There are lots of books and supportive materials available on the the technical aspects of antenna system construction. But there is only one book that looks into the legal matters surrounding adding an outside antenna to your property. That is Fred K1VR's excellent guide to antenna zoning issues. Most communities have property or building codes that can severely limit the kind of external antenna you can place on your property, They also can restrict the height above ground you can put the antenna structure. These various laws and codes, often, aren't even clearly understood by the public officials responsible for their enforcement. All too often, their easy answer is to simply tell the radio hobbyist "No" and try to let things go at that. Beyond local government codes, in some cases, State and even Federal law can be in play when it comes to putting up an antenna. For example, maximum antenna height on properties located within a certain distance from airports can be an important consideration.



Second Edition
by Fred Hopengarten, Esq. K1VR
245 pages
ISBN# 978-0-87259-145-5
ARRL Order # 1192
$49.95
The American Radio Relay League
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Fred Hopengarten is both a ham radio operator and an experienced lawyer. After reading this book, I would also call him an excellent teacher. Fred takes the often confusing legal process and brings it down to the level of folks that are just trying to get a simple antenna up with the minimum of hassle. He explains the process of researching the legal issues surrounding your antenna installation request. He guides you through the process of getting to know the people you are likely to need to deal with. He raises the common objections you are likely to encounter from both officials and your neighbors. Armed with this information, he teaches you how to go about applying for any necessary permits and variances. He even covers the process of appeal should your initial application be refused. If things need to go beyond these simple procedures, he gives you all the information you need to look into presenting your matter in a public hearing or even in a legal proceeding.

Fred even includes a chapter covering the special federal regulations that give radio amateurs a certain amount of leverage when dealing with local officials. (Perhaps a good reason to consider getting your amateur radio license along the way.)

The book includes a CD full of samples letters and applications you can use to work through the process of dealing with your local officials. It even includes a collection of pertinent precedent setting case law that you can share with you own legal counsel.

If you anticipate any difficulties with your planned outdoor antenna installation, the information in this book will save you and enormous amount of time and money. Well worth the cover price.

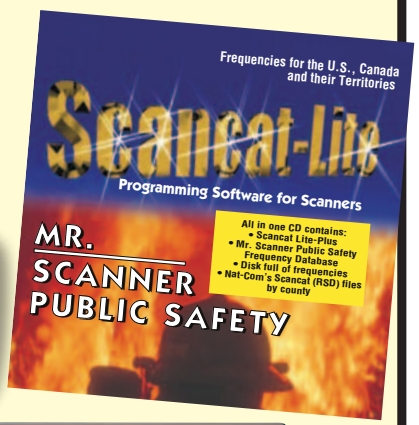
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Scanning Atlantic City While on Vacation



By Ed Muro, K2EPM

I have always been a fan on bringing a scanner where ever I travel. For a while, when I was single, my vacations and the places I chose to vacation at often centered around the scanning action. It's always nice to know what's going on around you, especially when your in a city that never sleeps. Recently my buddy Joe-KC2BZB and his wife took a trip to Atlantic City in New Jersey and I was so pleased that he sent in a report. One thing is for certain, when you put gambling, business that are open 24 hours, lower income neighborhoods, alcohol, and prostitution all in one big mixing bowl and shake it up...the scanners are sure to me active 24-7.

Joe reports: This past Memorial Day weekend, the YL and I stayed at the Atlantic Palace on the Boardwalk at Atlantic City. While Scanning was not exactly the top item on the agenda, I did bring my Bearcat BC-396T (not the newer BC-396XT).

As usual, I waited until the last minute to program my scanner. Using my software, I attempted to download data, only to find out that my subscription had expired.

After renewing, I downloaded the following systems into my scanner:

- Harrahs
- Bally's
- Trump Taj Mahal
- Trump Plaza
- Showboat
- NJ Turnpike
- Atlantic City
- Atlantic County
- The Bogata
- The Tropicana
- Atlantic County
- Resorts
- NJ Transit
- NJ State Police

I listened to a few of the Casinos, nothing too interesting, then I listened to The Atlantic City PD. Most Of what I heard was in the Digital P25 mode, and I must confess that this is probably the first time I used this scanner to monitor a digital transmission. While I did not fiddle with the P25 setting, I must say I was quite disappointed with the audio - it was hard to follow the conversations, the transmissions had a watery, sound, as if the scanner's speaker was under water. Well, Joe... that was a common complaint with the Original Uniden BC396T and probably one of the reasons for the introduction of the "XT" version. Many people reported better results with a Pro-96 or GRE PSR-500.

As for the content of Joe's report, lets expand upon it a bit.

According to Wikipedia: Atlantic City is a city in Atlantic County, New Jersey United States, and a nationally renowned resort city for gambling, shopping and fine dining. Atlantic City is located on Abescon Island on the coast of the Atlantic Ocean. As of the 2010 United States Census, the city has a population of 39,558. There were 274,549 people living in the Atlantic City–Hammonton metropolitan statistical area.

Atlantic City officially became a city in 1854. The new city contained portions of Egg Harbor Township and Galloway Township. The three routes into Atlantic City are the Black Horse Pike/Harding Highway (US 322/40), White Horse Pike (US 30) and the Atlantic City Expressway. Atlantic City is roughly 120 miles south of New York City by road, 62 miles southeast of Philadelphia, and borders Absecon, Brigantine, Pleasantville, Ventnor and West Atlantic City (part of Egg Harbor Township).

For those of you in to Medium-wave DXing you might try "snagging" a

Continued on page 32

Scanning Atlantic City While on Vacation cont.



couple of these AM radio stations from Atlantic City:
WWJZ 640 AM – Kids (Radio Disney)
WMID 1340 AM – Oldies
WOND 1400 AM – News/Talk
WENJ 1450 AM – ESPN Radio/Sports
WBSS 1490 AM – Spanish

Atlantic City Police Department:

The Department handles more than 150,000 calls for emergency and routine police service each year. Uniformed Patrol is a function of the Field Operations Bureau and is organized by time into three shifts covering day, evening, and nights. Patrol officers are seen in a number of capacities by members of the public each and every day whether they are assigned to marked patrol vehicles, on foot or on bicycle patrol. They are the first responders to calls for citizen assistance and many quality of life concerns. The dedication, commitment and professionalism of these men and women in the protection of our citizens and the 34 million annual visitors to the city is paramount.

The Police Department is located at:

1100 N Albany Ave.
Atlantic City, NJ 08401

The Atlantic City Police Department is dispatched by the Atlantic City Communications Bureau.

The Communications Division is comprised of members of the Communications 9-1-1 Center, the Radio Shop, Information and Technology Section, Administrative Offices and the Training Division. The Communications 9-1-1 Center is the Public Safety Answering Point (PSAP) and the Public Safety Dispatch Point (PSDP) for all 9-1-1 calls that originate or involve the geographic boundaries of Atlantic City, N.J. Although the population of just less than 50,000 residents, on any given day, the population can swell to more than a quarter of a million visitors and guests.

The Bureau is staffed twenty-four hours, seven days, by approximately fifty civilian employees to handle any and all requests for public safety services. All of the personnel face an extremely difficult, challenging but rewarding career choice. Their jobs require them to possess a tremendous amount of knowledge and ability in responding to the needs of the citizens, visitors and uniformed personnel each and every hour of every single day. They are the nameless, faceless professionals who are diligently performing a highly stressful and fast paced job. In addition, they must possess, or quickly acquire, many critical skills from multi-tasking to proper extraction of information to the immediate prioritization of emergency requests, just to name a few. It takes a very special type of person to do this type of job.

The Police Department as well as the Fire Department and Beach Patrol utilize a Motorola Type II SmartZone radio system.

For a complete listing of Atlantic City and County frequencies visit Mr. Scanner at: http://www.bearcat1.com/mrscan.htm.

Police Talk Group	Description
16	Police ATG
48	Police 1 - Dispatch
80	Police 2 - Lockups/Admin
112	Police 3 - Investigations
144	Police 4 - Scene Tac A
176	Police 5 - Scene Tac B
208	Police 6
240	Police 7

FIRE DEPARTMENT

Talk Group	Description
48016	Fire ATG
48048	Fire Dispatch
48080	Fireground 2
48112	Fireground 3
48144	Administration
48176	Fire Prevention
48208	County Fire 1
48240	County Fire 2
48272	Patch to Fire 2

BEACH PATROL

Talk Group	Description
49616	Beach ATG
49648	Beach Patrol Dispatch
49680	Beach Patrol Tactical
49712	Marine Channel 16 Patch
49744	Atlantic County PD Patch

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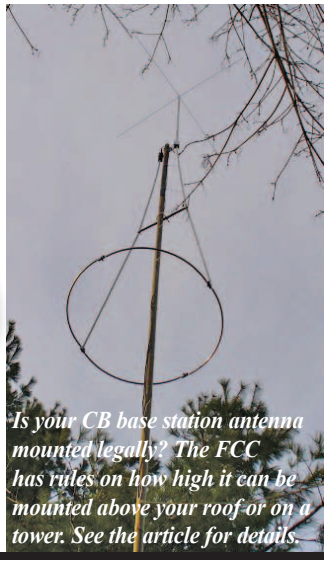
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The Basics on CB Radio

Do you think you know the rules? Let's set the picture straight on a few things!

By Chuck Gysi, N2DUP



Is your CB base station antenna mounted legally? The FCC has rules on how high it can be mounted above your roof or on a tower. See the article for details.

Citizens Band radio has been around a long time. It evolved from a bulky short-range UHF radio service created in the late 1940s to a 27-MHz band carved out of the amateur radio 11-meter band in the late 1950s. It morphed into a fortified CB service in 1977 when the number of channels expanded from 23 to 40.

Today, CB still exists and continues to have plenty of users all across the world. But how much do you know about operating on CB? If you're just an occasional CB operator who might jump on the air during a trip in the family van, you might want to acquaint yourself with this CB operations primer.

Channel usage

Are some channels set aside for certain use? Yes! Channel 9 was reserved for emergency use way back in 1969. Prior to that, it had been a calling channel. Today, a number of volunteer radio teams such as REACT monitor Channel 9 to assist motorists and truckers. If you have an emergency, and perhaps you don't have a cell phone, you just might be able to rustle up some assistance on Channel 9 to get an emergency phone call placed to police or other emergency services. Channel 9 also may be used for motorist assistance, such as directions or for tow requests.

At one time, Channel 11 also was used as a calling channel. In addition, prior to the mid-1970s, Channel 10 was used by over-the-road truckers and other highway motorists, however, a campaign ensued nationally to move highway chatter off Channel 10 to Channel 19 to avoid the signal splatter onto Channel 9. Today, Channel 19 probably is the busiest channel in most locations with plenty of drivers chatting all day and night.

Some CB operators like to use single-sideband to get perhaps a little extra distance or to chat with a different type of CB operator. These sideband signals sound like Donald Duck on regular AM CB channels. AM signals take up much more bandwidth than sideband signals and because of that, AM and sideband don't mix well on the same channel without interfering with each other.

At one time, almost all sideband activity was on Channel 16 in the lower sideband mode. Today, Channel 16 still is used by lower sideband mode operators, so you should avoid that channel with regular CB radios. With the creation of 17 new CB channels in 1977, Channels 36 through 40 were set aside for upper sideband CB use, but it's all by gentleman's agreement. Officially, these channels are not set aside, but courteous CB operators respect the channel usage. Sideband CBers typically will call for each other on Channel 36 and then move to Channels 37-40 for longer conversations.

CB skip – can you talk long distance?

If you've been on CB for more than one day during the daytime, you know how skip signals, those that travel hundreds and thousands of miles, fill the airwaves and make it difficult to communicate on a local basis sometimes. Because CB uses shortwave frequencies, it's common for signals to travel long distances, especially when the ratchet jaw operators on the other end are running excessive power and big antenna arrays.

At one time, all long-distant CB communications were considered illegal by the Federal Communications Commission. During a rewrite of the rules, the FCC declared that any communications further than 155 miles was illegal. This was an effort to cut down on those operators who get on CB just to talk long distance, tying up channels for local operators. The same rule applies today. If you find yourself talking to someone more than 155 miles away, it's best to break off the conversation if you wish to be considered a courteous operator.

Antenna height

How high can you mount your CB antenna? Can you put one at the top of a 100-foot tower? Actually, no.

In an effort to keep CB a short-range radio service, the FCC's rules state that a base station antenna's highest point cannot be mounted more than 20 feet above the highest point of a building or tree on which it is mounted, or more than 60 feet above the ground. Because most CB base antennas run about 18 feet tall, that means you basically can mount a CB antenna just on a rooftop, in a tree or about 40 feet up a tower. Any additional height would be illegal. Mobile and handheld antennas are not bound by the same restrictions, so go operate on top of a mountain in your car – legally!

Take note, however, if you live close to an airport, you may have additional restrictions on the height of your CB antenna. Check FCC and FAA rules for additional information.

Call signs?

Do you need a call sign or some other on-air identifier on CB? CB licenses were discontinued back in the late 1970s and you'll rarely ever hear call signs on CB. However, what you will hear are people going by "handles" or nicknames on CB. Pick an on-air nickname for yourself, much like some people do for their e-mail addresses or online chat room names. It might be something as simple as "Woodchuck" or more elaborate such as "Midnight Break Dancer."

Believe it or not, FCC rules allow you to use your previously issued FCC CB call sign, if you had one prior to the early 1980s, or you may use a call sign in this manner: K + your initials + your ZIP code, such as KCG19101.

On sideband channels, CBers don't use "handles," however, you may hear them using unit numbers such as "Unit 216" or SSB numbers, such as "SSB-381." Go with the flow and identify yourself as the other locals do on the channels. Pick the right nickname or unit number and go with it!

The REACT patch is worn proudly by members of REACT teams across the country in their duties to assist motorists not only on CB Channel 9, but also GMRS and ham frequencies.

Time limits?

Would you believe that there are time limits on how long you can talk on CB? Yes, it's true!

FCC rules stipulate that you can converse with other operators for up to five consecutive minutes. After that, you and the other CBers are required to remain off the air for a full minute before resuming the conversation. I don't know any operators who abide by this rule, but know that it's the law. Its intent is to allow other CBers a chance to jump in on a channel and potentially say hi or get a call across the airwaves.

Wrap-up

Hopefully, some of this information may have clarified some CB rules and practices for you. Whether you are a long-time operator or a new CBer, it doesn't hurt to know the proper way to conduct yourself on the air. Other operators will appreciate your courtesies.

Write in

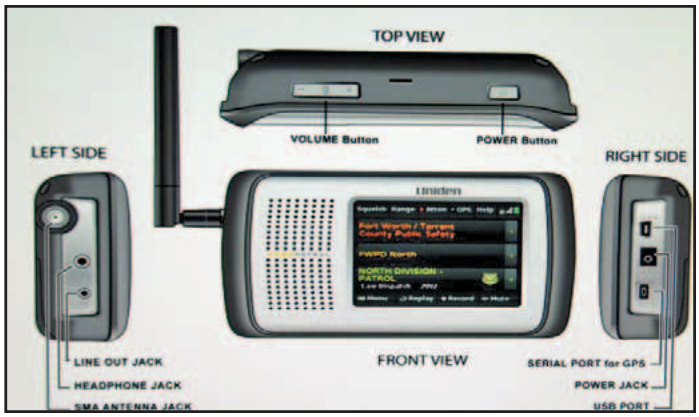
Are you confused by CB rules or on-air practices? Feel free to send in your questions and we can try to clarify them for you. What types of CB information would you like to see in Nat-Com? You can write to me at cb-natcom@scanning1.com (be sure to put "Nat-Com" in the subject line or your e-mail may wind up in my spam bin). This e-mail address is only for the author of this column. ●



A REACT CB operator volunteers time to monitor for emergency and motorist assistance calls on CB Channel 9. Channel 9 can be used only for emergency and motorist help.

First Look: Uniden Home Patrol Extreme

By Tom Swisher
WA8PYR



Could it be HomePatrol 2.0? Well, it's not really, but with one firmware update and another firmware upgrade coming down the pike, the HomePatrol is getting Extreme!

The first of these, a free update, adds several enhancements. With some being added features, this free update is almost a feature upgrade rather than an update.

With this update, users will now be able to create new systems for the HomePatrol both in the radio and in software; this means that you are no longer dependent upon the RadioReference database, and can create your own systems at will, including frequencies, talkgroups, alpha tags and so on. This is a major new feature which should go a long way toward silencing the complaints from the advanced scanner community in regard to limited customization capability in the HomePatrol. You'll also be able to set positive or negative scan delays on a per-channel basis, in addition to setting active channel alerts on a channel-by-channel basis.

Also in this update are a trunked ID search mode, the ability to define GPS rectangles (rather than radius circles as at present) which will allow for greater control over the geographic area to be scanned; the ability to export your favorites files for sharing with other users; and the ability to activate more than one favorite file at a time.

Coming at the same time in a paid upgrade with a large number of very interesting features which will satisfy many advanced hobbyists. Foremost among these are trunked system monitoring tools which mimic many of the features available in freeware monitoring programs such as Trunker, Unitrunker and Pro96Com.

The trunked system monitoring tools will allow you to graphically view the loading and reception qualities of a trunked system; view activity levels on a channel-by-channel basis; and log system activity such as channel grants and other control channel information. In addition, there is an LCN Finder which can assist in finding the Logical Channel Number placement of unknown EDACS ad LTR trunked systems; this will be a very useful feature for determining the LCN order of new or unknown systems, a task which currently requires quite a bit of monitoring effort.

In addition to the trunked system monitoring tools, the Extreme upgrade includes a signal strength plot feature, which graphically displays the strength of a received signal over time, and a bandscope. Similar in function to a spectrum analyzer, the bandscope allows you to set a center frequency, span (from 200 kHz up to up to 200 MHz) and frequency step size, and "sweep" the band for active signals. The result is displayed on screen in the form of a frequency vs. time graph.

On the initial trail run, all of these features are very impressive. Stay tuned in the next issue for a detailed analysis!



CLOSING COMMENTS



By: Norm Schrein, KA8PGJ

In city after city we see newspapers closing down. Are they a thing of the past, or simply their way of delivering the news a way of the past? Lots of papers have gone from the ink on paper method to having a subscription on-line. Is one way better than the other? It would all depend on your preference on how you like to read your news. I would prefer to hold a piece of paper in my hand verses staring at a computer screen, but then it seems that preferences of our population are changing to just the opposite.

We now have Kindle and other readers that can hold hundreds or even thousands of books. Soon, book stores and maybe even libraries will be a thing of the past. Those who do not have computers will soon, I fear, be out in the cold. Having a computer these days is akin to having a television set.

Most of us feel that we are up on the electronic technologies, but in many ways our habits are not. Just in my case wishing to read a paper or book that is printed and I can hold in my hand verses on a Kindle or computer screen probably makes me an old timer as far as the evolving technology is concerned.

The one big advantage for the papers is that they can still stay in business, but in a different format. So, in that way, the way we read material may in fact change for the better. After all, when Henry Ford invented the automobile, horses were very soon after relegated to the barn. The technology changes and I think we only notice some of the changes as we get older. The newer generation has no problem keeping track of their friends on Facebook, Twitter and other social media. I do have a Facebook account myself, but have not graduated to Twitter. Also, my circle of "friends" is rather small. I don't really know who of my friends would want to know that I am going to the County Fair or shopping for a new sofa. At least, I don't feel that they would care. However the younger generation has a different view and feels that this is all a part of staying connected to their friends. I guess that I really don't want to be that "connected".

So, we at Nat-Com are also faced with the same problem. Do we keep the magazine in a print format; do a combination of both print and on-line or go to on-line only? We currently have the magazine in both print and on-line versions. The advantage to a publisher of an on-line only magazine is that it would dramatically reduce costs. There are four basic costs in producing a magazine: Authors, graphics, printing and postage. By eliminating the magazine in a printed form and going to online only, half of the costs (printing & postage) would be eliminated.

But, how many people would we be leaving behind? How many readers would we lose? On the other hand, how much of our resources could we devote to making the magazine even better? So, I look for your input. At this point it is only a thought, but input from our readers would certainly help in making a decision sometime in the future.

I ask for your input. For those of you, who have computers; simply send me an email with your thoughts. You can email me at norm@bearcat1.com . If you don't have a computer, then simply send me a letter at: National Communications, P.O. Box 291918, Kettering, OH 45429. We need to keep up with the times, but I also don't want to leave our readers in the dark for the lack of a magazine in print form. I know many of you won't answer me at all and I guess that means that you would not care one way or the other, but if you have an opinion pro or con as to the electronic version of the magazine, please let me know. ●



LAST PAGE OUT



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Photo by Norm Schrein

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